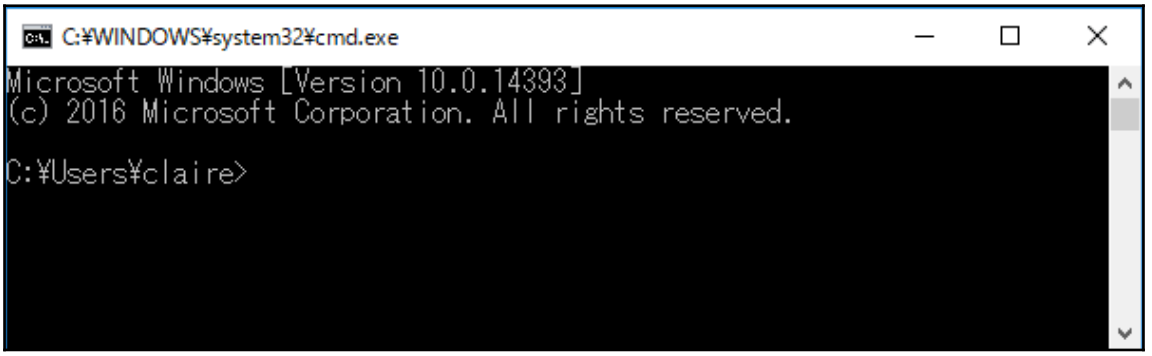
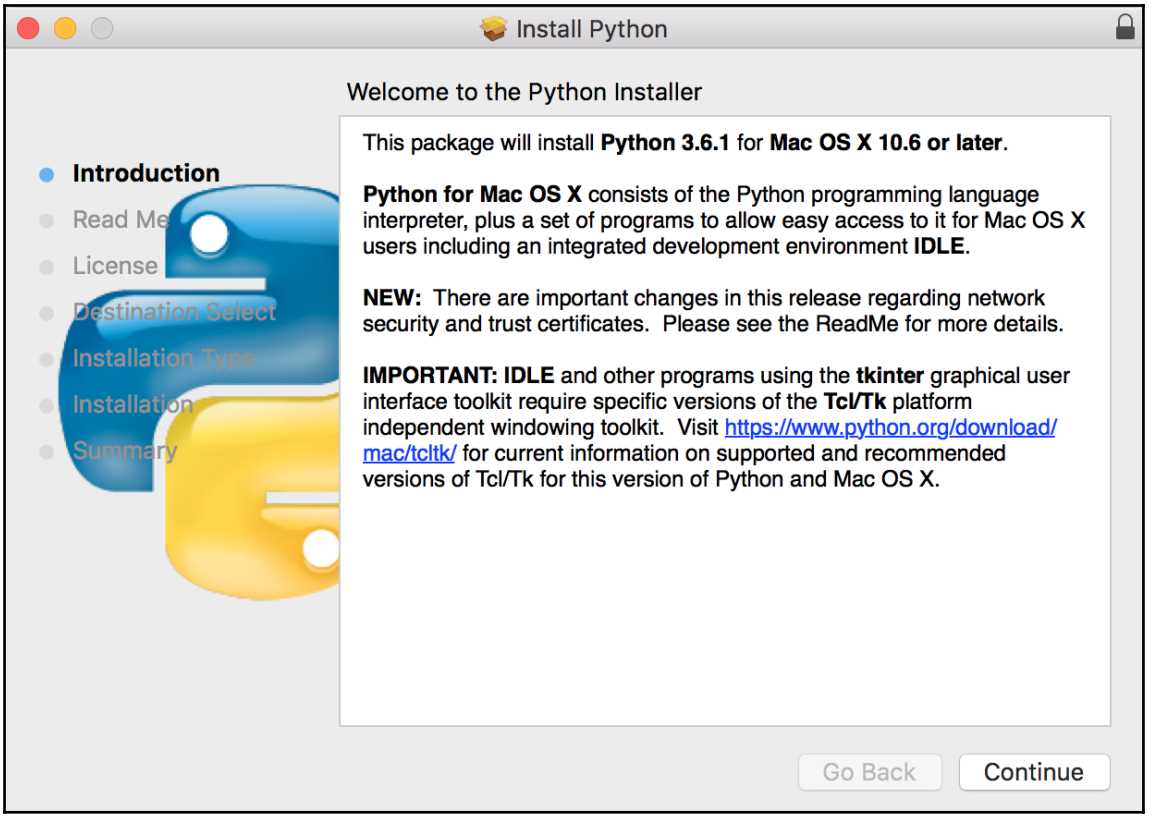
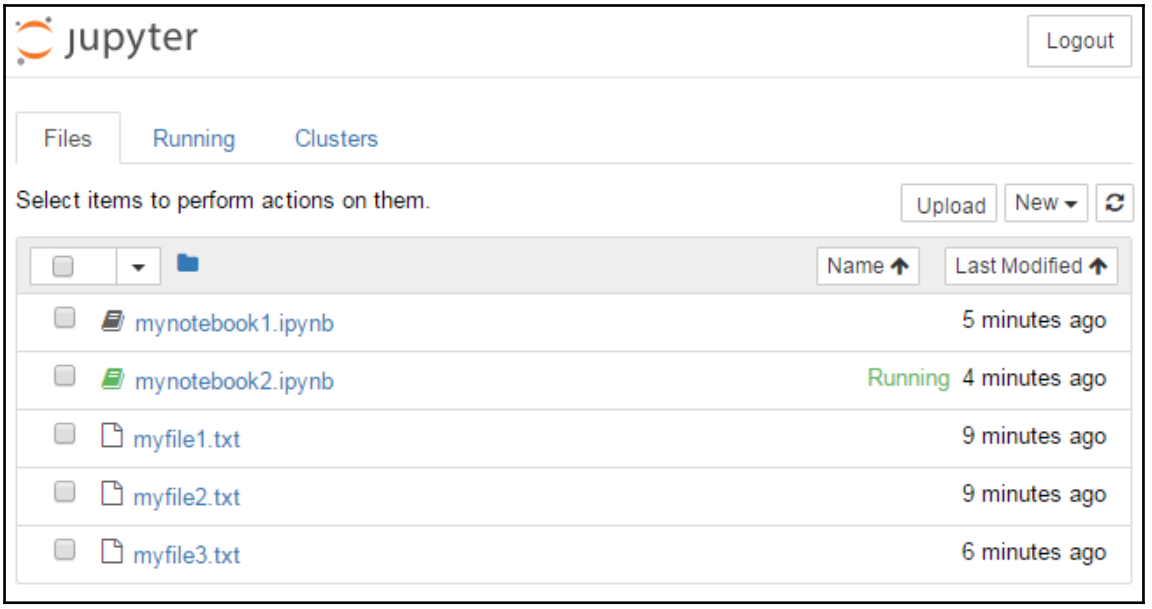
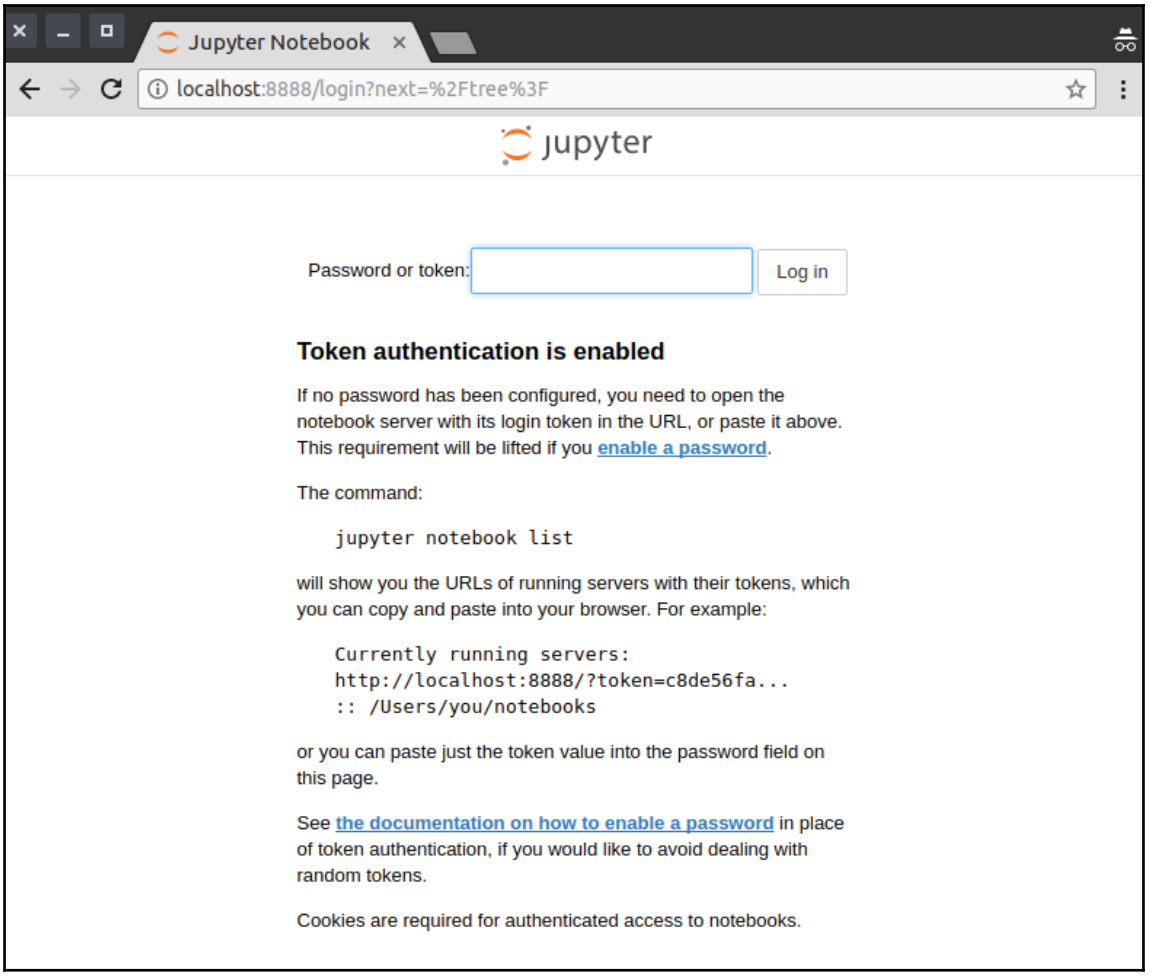
Graphic Bundle

Chapter 1: Introduction to Matplotlib



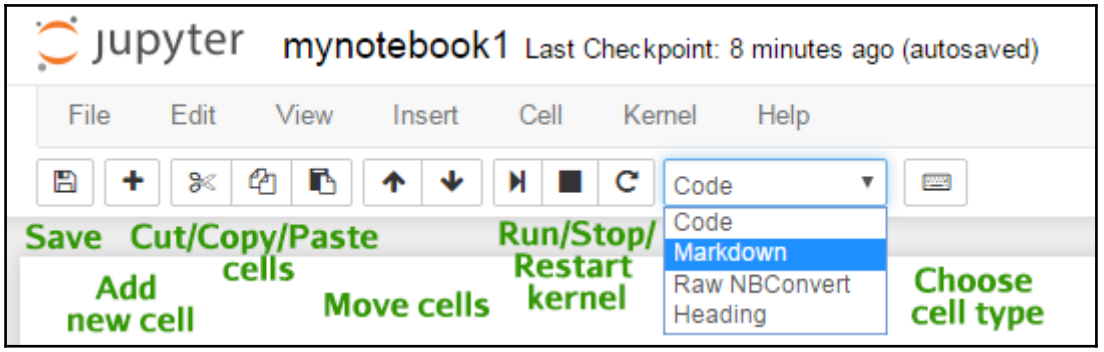

Install Python
Welcome to the Python Installer
Introduction
Read Me
License
Destination Select
Installation Type
Installation
Summary
This package will install **Python 3.6.1** for **Mac OS X 10.6 or later**.
Python for Mac OS X consists of the Python programming language interpreter, plus a set of programs to allow easy access to it for Mac OS X users including an integrated development environment **IDLE**.
NEW: There are important changes in this release regarding network security and trust certificates. Please see the ReadMe for more details.
IMPORTANT: IDLE and other programs using the **tkinter** graphical user interface toolkit require specific versions of the **Tcl/Tk** platform independent windowing toolkit. Visit https://www.python.org/download/mac/tcltk/ for current information on supported and recommended versions of Tcl/Tk for this version of Python and Mac OS X.
Go Back
Continue


jupyter
Logout
Files
Running
Clusters
Select items to perform actions on them.
Upload
New
Name
Last Modified
mynotebook1.ipynb
5 minutes ago
mynotebook2.ipynb
Running
4 minutes ago
myfile1.txt
9 minutes ago
myfile2.txt
9 minutes ago
myfile3.txt
6 minutes ago




```
~
claire  jupyter notebook list
Currently running servers:
http://localhost:8888/?token=192bf3d3cf73190e795572c69374942cb7a54922a2175862 :: /home/claire
```

```
In [4]: import logging,sys
        print("Let's run some code.")

        print("Sure :)")

        n = 1+1
        print(n)

        print(Oops)

        Let's run some code.
        Sure :)
        2

        ---------------------------------------------------------------------------
        NameError                                 Traceback (most recent call last)
        <ipython-input-4-54a3410c52d8> in <module>()
              7 print(n)
              8
        ----> 9 print(Oops)

        NameError: name 'Oops' is not defined
```



```
In [1]: while 1:
            print("Stop me! >.<")
```

```
Stop me! >.<
Stop me! >.<
Stop me! >.<
Stop me! >.<
Stop me! >.<
Stop me! >.<
Stop me! >.<
Stop me! >.<
Stop me! >.<
Stop me! >.<
Stop me! >.<
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Stop me! >.<
Stop me! >.<
Stop me! >.<
Stop me! >.<
Stop me! >.<
Stop me! >.<
Stop me! >.<
Stop me! >.<
```

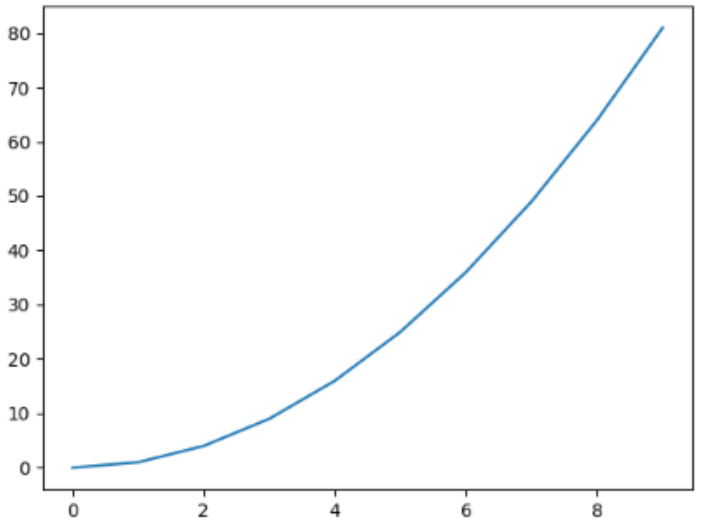
```
In [4]: %matplotlib notebook

In [5]: import matplotlib.pyplot as plt

        x = list(range(10))
        y = [i**2 for i in x]

        plt.plot(x,y)
        plt.show()
```

Figure 1



```
In [4]: %matplotlib notebook

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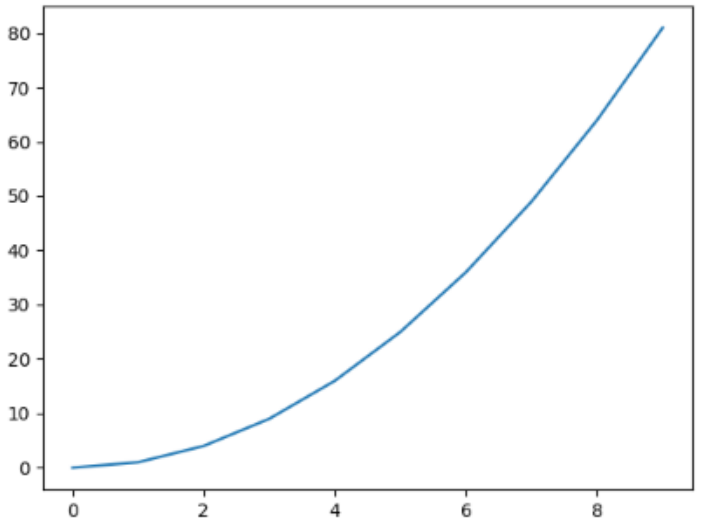
Figure 1



```
Title: My first notebook
==
# Header 1
## Header 2

This is the content of my notebook.

I am __BOLD__.
- I want to make a point
* so do I


1. Let's have some order here
2. Some *more* order
    - I need some hierarchy
    - *italic. Isn't it chic?*

> I love Python :D

```
print("Hello world!")
print("I am ready to learn Matplotlib!")
```
---
```

Title: My first notebook

Header 1

Header 2

This is the content of my notebook.

I am **BOLD**.

- I want to make a point
- so do I

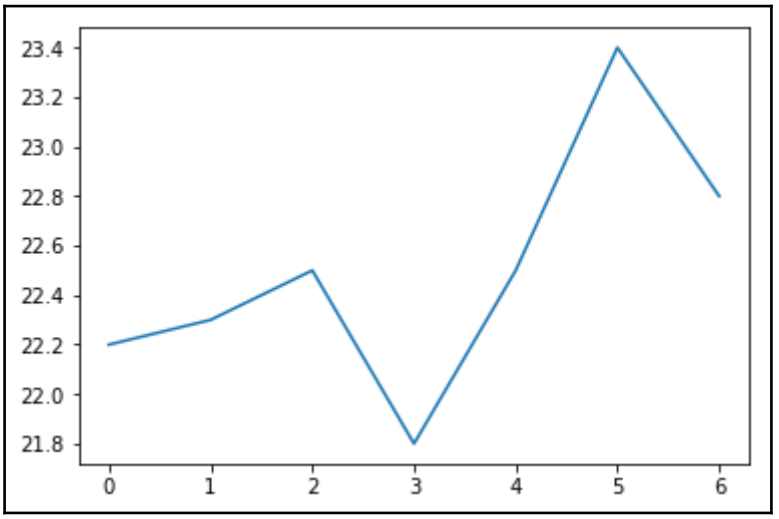
1. Let's have some order here
2. Some *more* order

    - I need some hierarchy
    - *italic. Isn't it chic?*

    > I love Python :D

```
print("Hello world!")
print("I am ready to learn Matplotlib!")
```

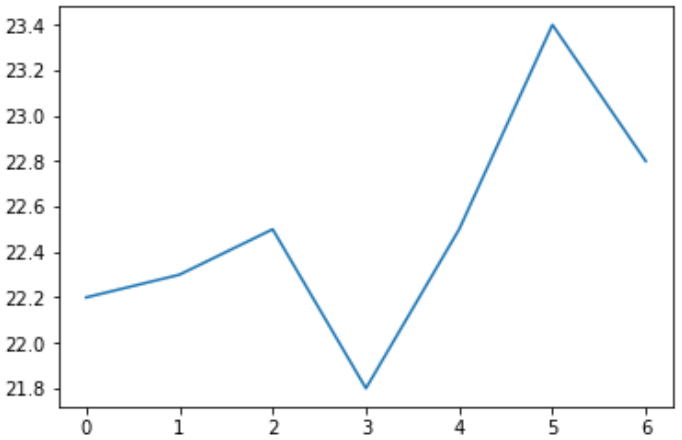
Chapter 2: Getting Started with Matplotlib



```
In [11]: import matplotlib.pyplot as plt
         t = [22.2,22.3,22.5,21.8,22.5,23.4,22.8]
         plt.plot(t)

Out[11]: [<matplotlib.lines.Line2D at 0x7f4f673512e8>]

In [12]: plt.show()
```



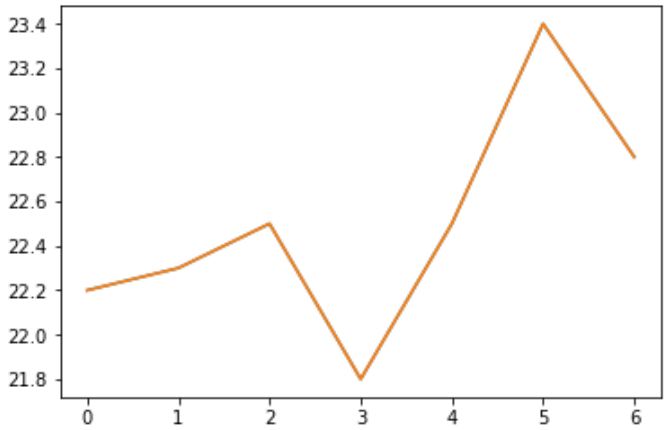
```
In [15]: import matplotlib.pyplot as plt
         t = [22.2,22.3,22.5,21.8,22.5,23.4,22.8]
         plt.plot(t)

Out[15]: [<matplotlib.lines.Line2D at 0x7f4f6729c320>]

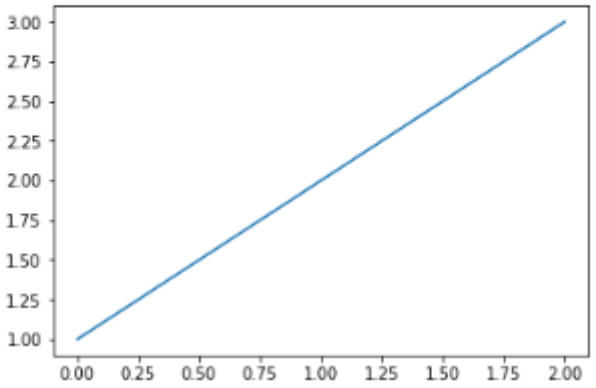
In [16]: import matplotlib.pyplot as plt
         t = [22.2,22.3,22.5,21.8,22.5,23.4,22.8]
         plt.plot(t)

Out[16]: [<matplotlib.lines.Line2D at 0x7f4f6729ca58>]

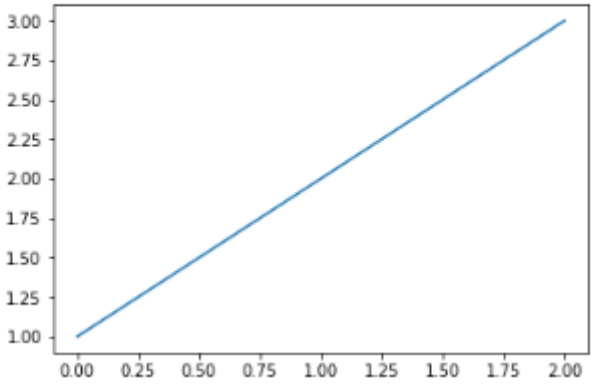
In [17]: plt.show()
```



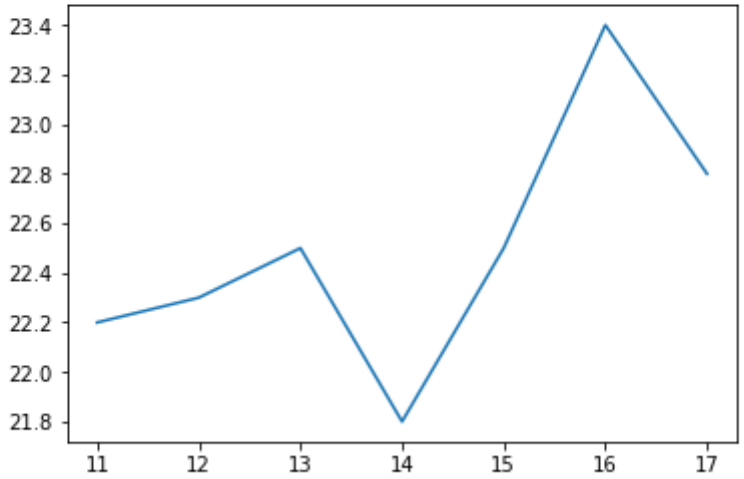
```
In [40]: plt.plot([1,2,3])
Out[40]: [<matplotlib.lines.Line2D at 0x7f6dc6afe2e8>]
```

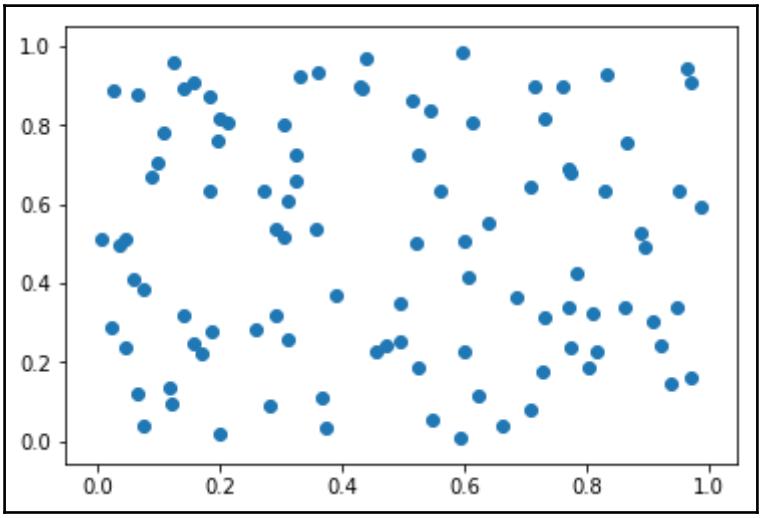


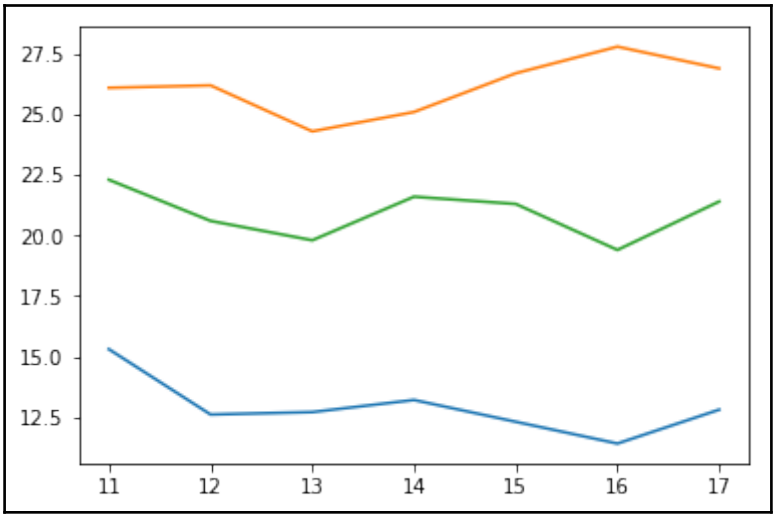

```
In [41]: plt.plot([1,2,3]);
```

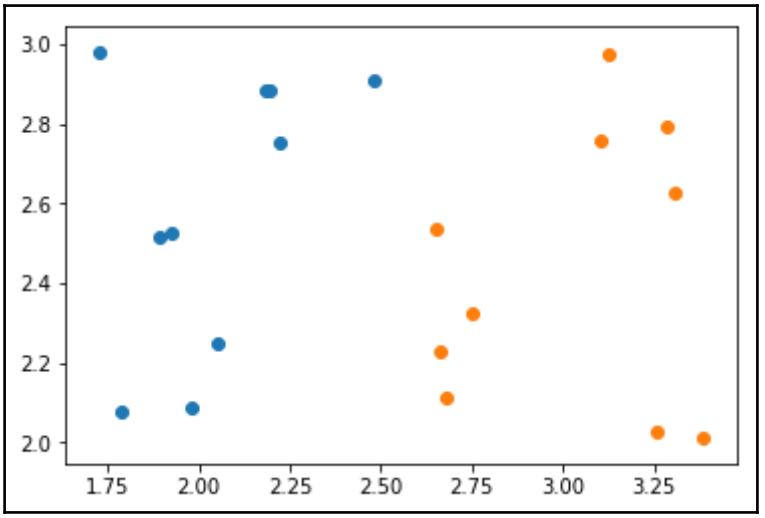


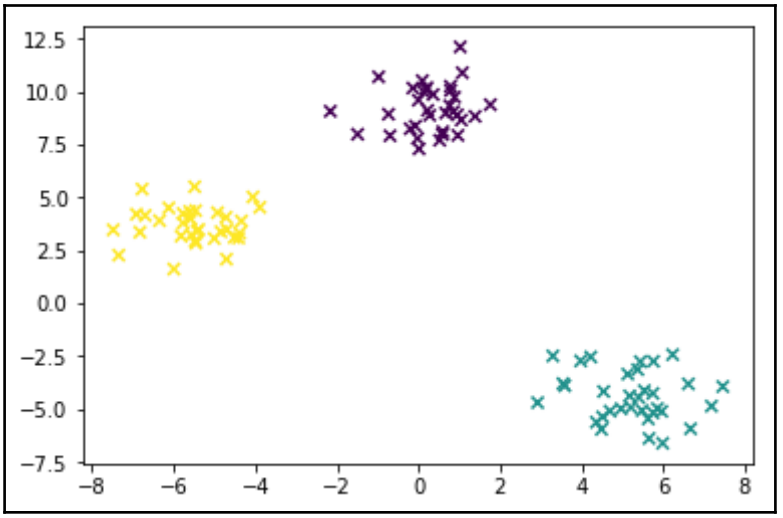
```
In [18]: d = [11,12,13,14,15,16,17]
         plt.plot(d,t)
         plt.show()
```

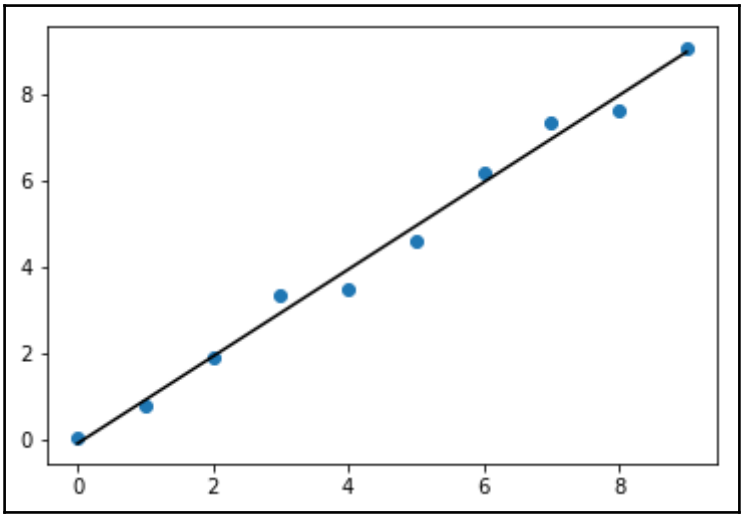


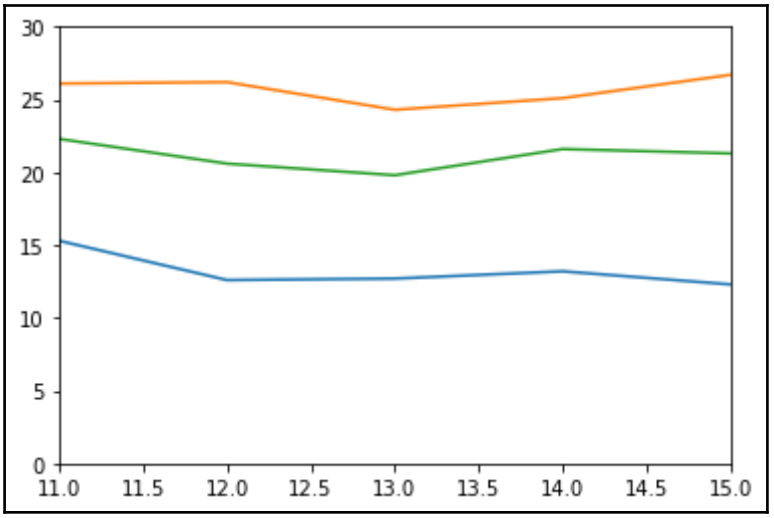


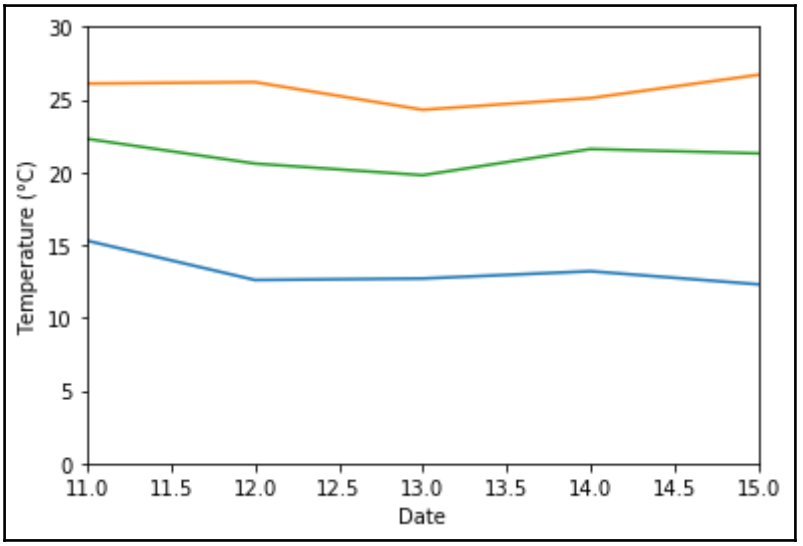

27.5
25.0
22.5
20.0
17.5
15.0
12.5
11
12
13
14
15
16
17

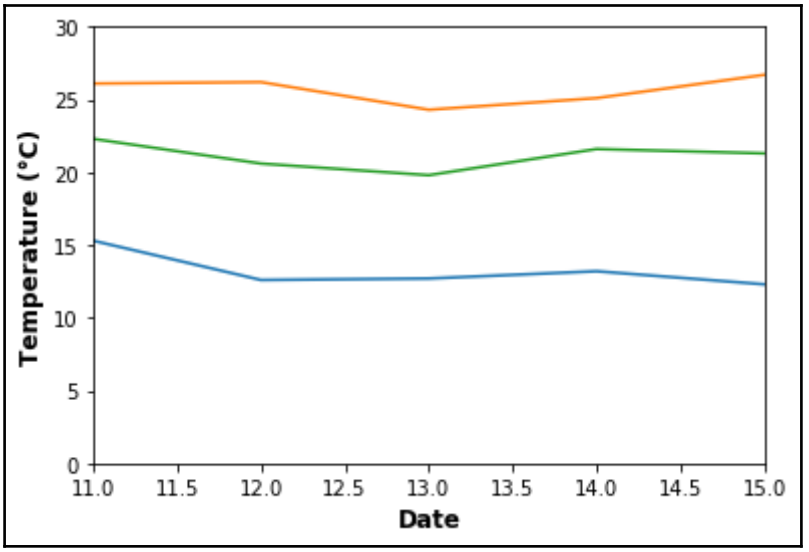

3.0
2.8
2.6
2.4
2.2
2.0
1.75
2.00
2.25
2.50
2.75
3.00
3.25

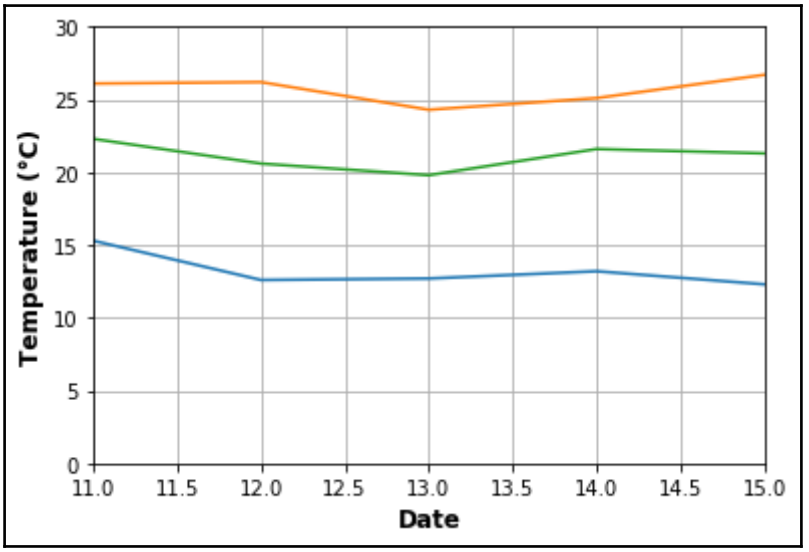

12.5
10.0
7.5
5.0
2.5
0.0
−2.5
−5.0
−7.5
−8
−6
−4
−2
0
2
4
6
8

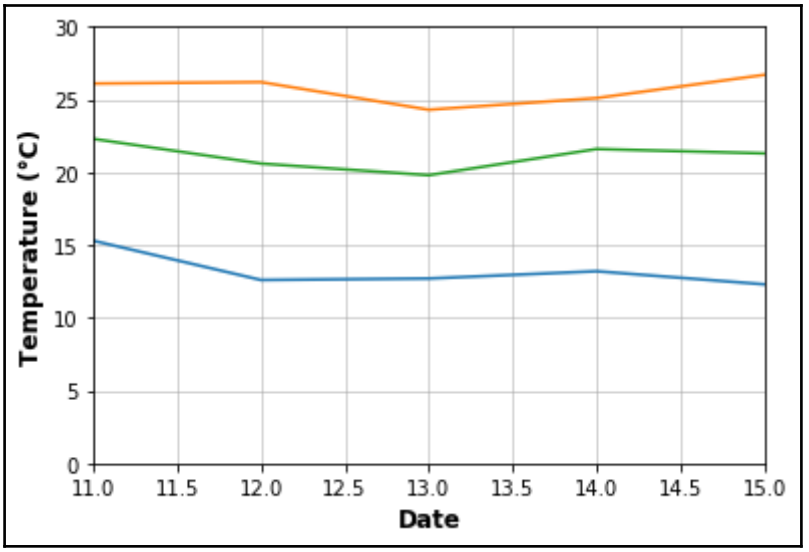

8
6
4
2
0
0
2
4
6
8

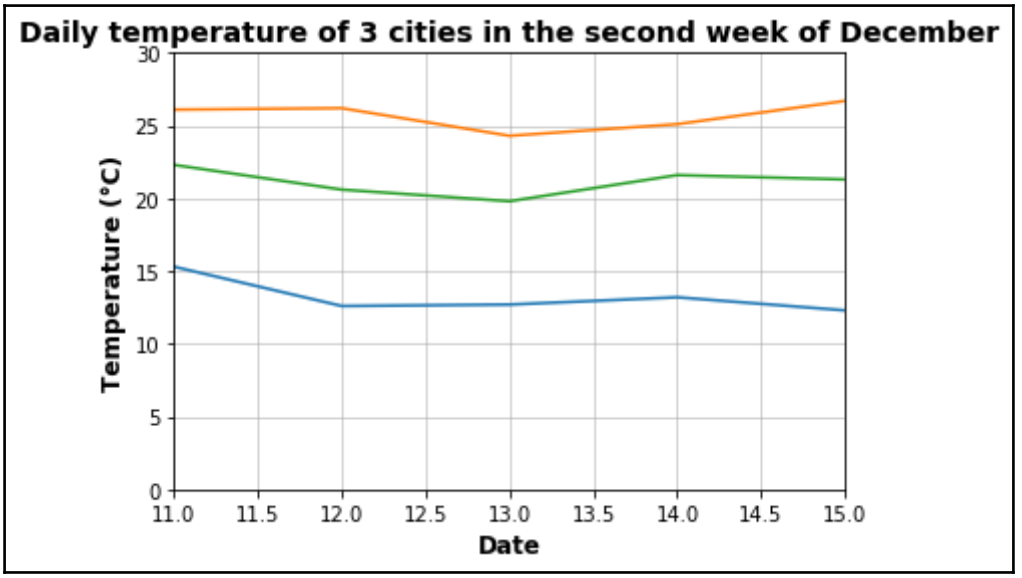

30
25
20
15
10
5
0
11.0
11.5
12.0
12.5
13.0
13.5
14.0
14.5
15.0

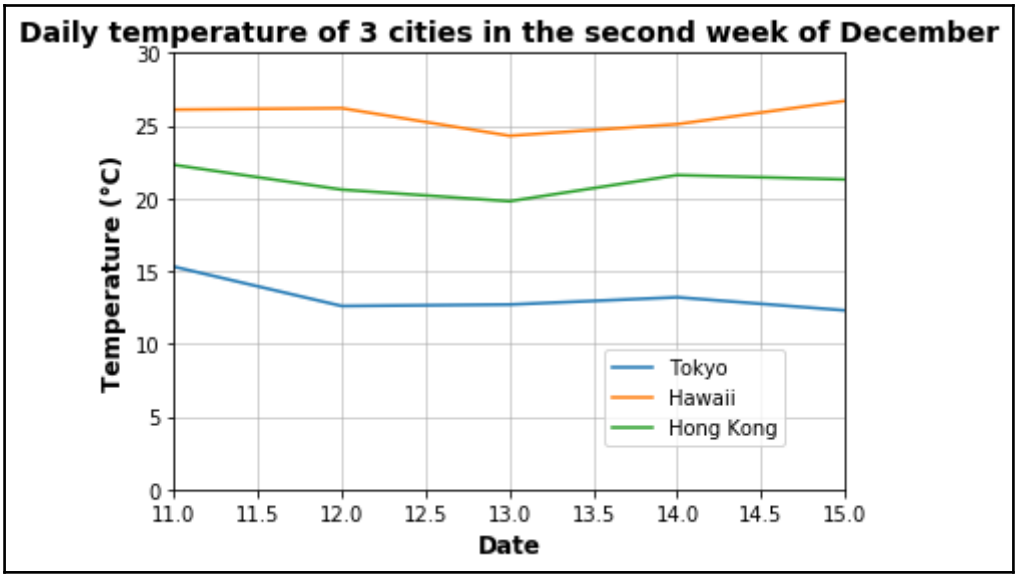

Temperature (°C)
30
25
20
15
10
5
0
11.0
11.5
12.0
12.5
13.0
13.5
14.0
14.5
15.0
Date

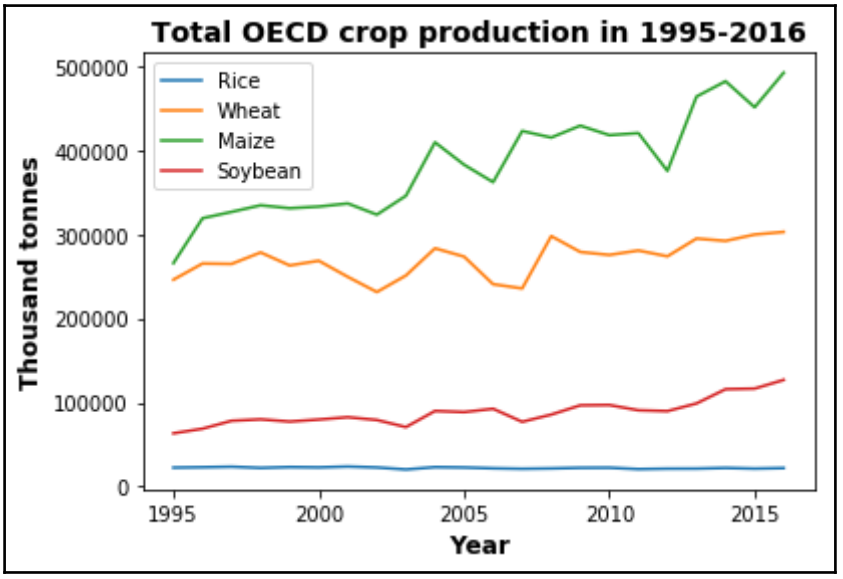

30
25
20
15
10
5
0
Temperature (°C)
11.0
11.5
12.0
12.5
13.0
13.5
14.0
14.5
15.0
Date


30
25
20
15
10
5
0
Temperature (°C)
11.0
11.5
12.0
12.5
13.0
13.5
14.0
14.5
15.0
Date


30
25
20
15
10
5
0
Temperature (°C)
11.0
11.5
12.0
12.5
13.0
13.5
14.0
14.5
15.0
Date


Daily temperature of 3 cities in the second week of December
30
25
20
15
10
5
0
Temperature (°C)
11.0
11.5
12.0
12.5
13.0
13.5
14.0
14.5
15.0
Date


Daily temperature of 3 cities in the second week of December
Temperature (°C)
Date
Tokyo
Hawaii
Hong Kong
0
5
10
15
20
25
30
11.0
11.5
12.0
12.5
13.0
13.5
14.0
14.5
15.0


Total OECD crop production in 1995-2016
Thousand tonnes
Year
Rice
Wheat
Maize
Soybean
0
100000
200000
300000
400000
500000
1995
2000
2005
2010
2015

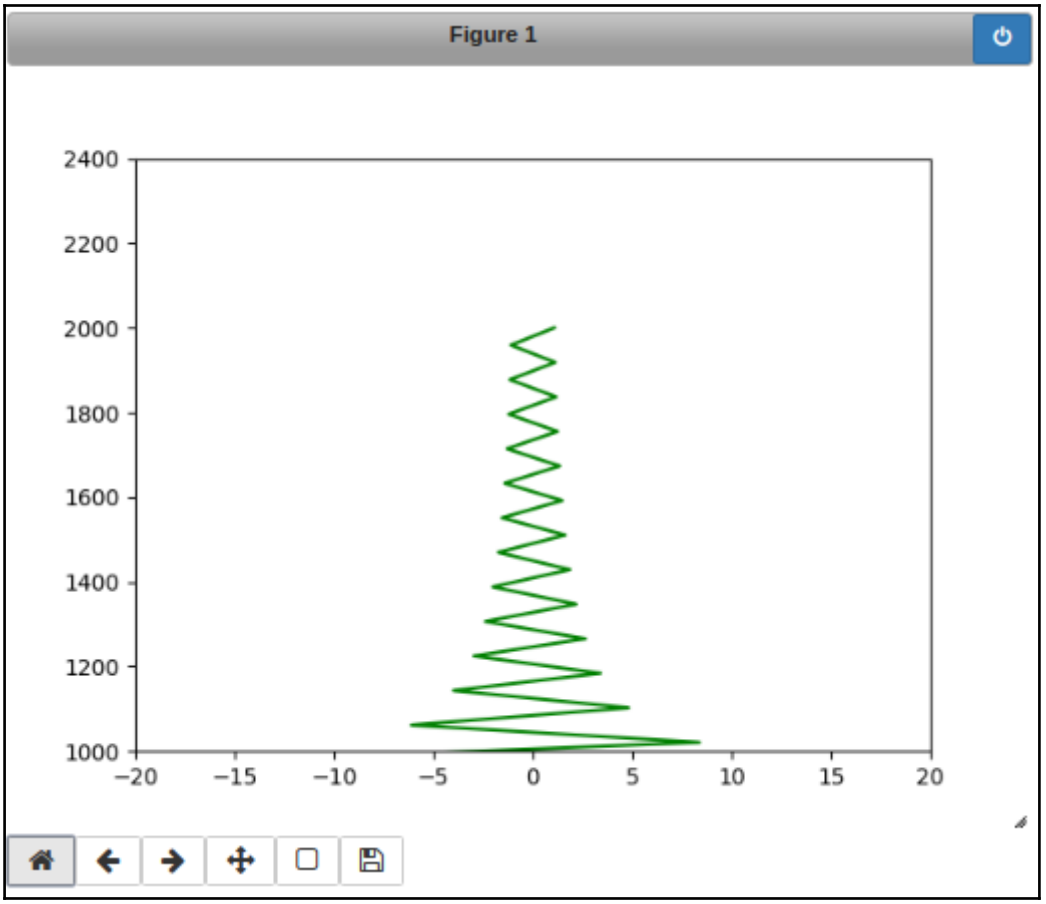


Figure 1
2400
2200
2000
1800
1600
1400
1200
1000
−20
−15
−10
−5
0
5
10
15
20

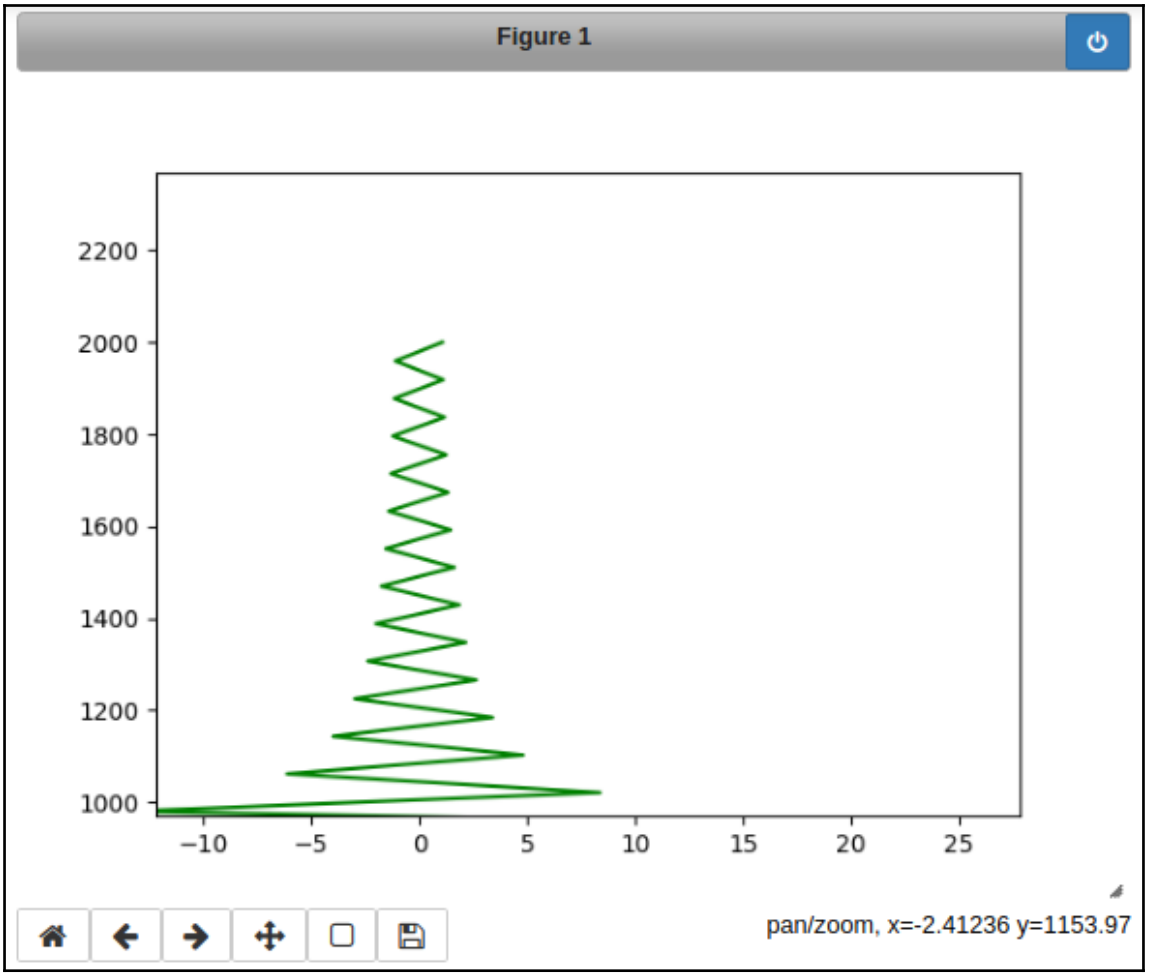


Figure 1
2200
2000
1800
1600
1400
1200
1000
−10
−5
0
5
10
15
20
25
pan/zoom, x=-2.41236 y=1153.97

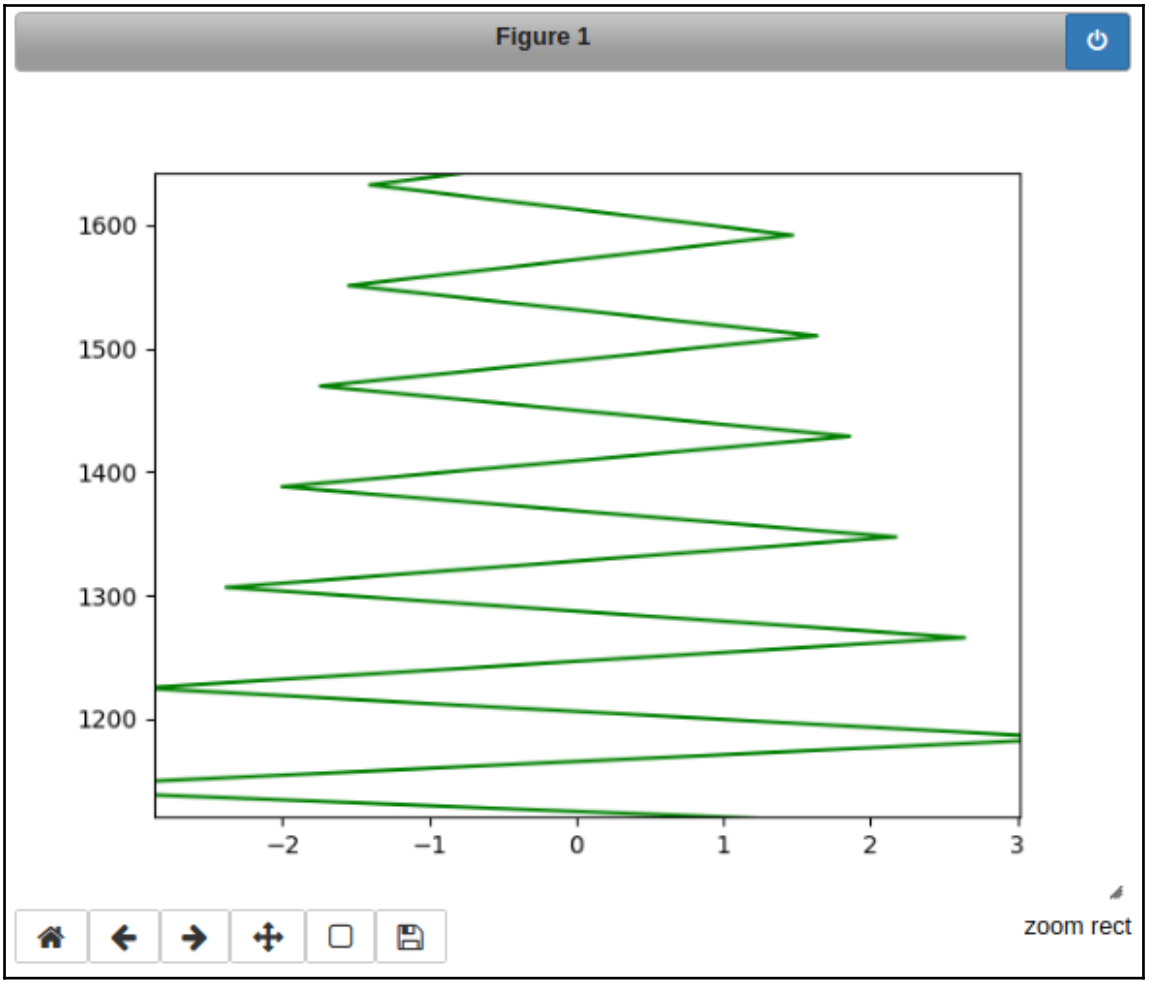
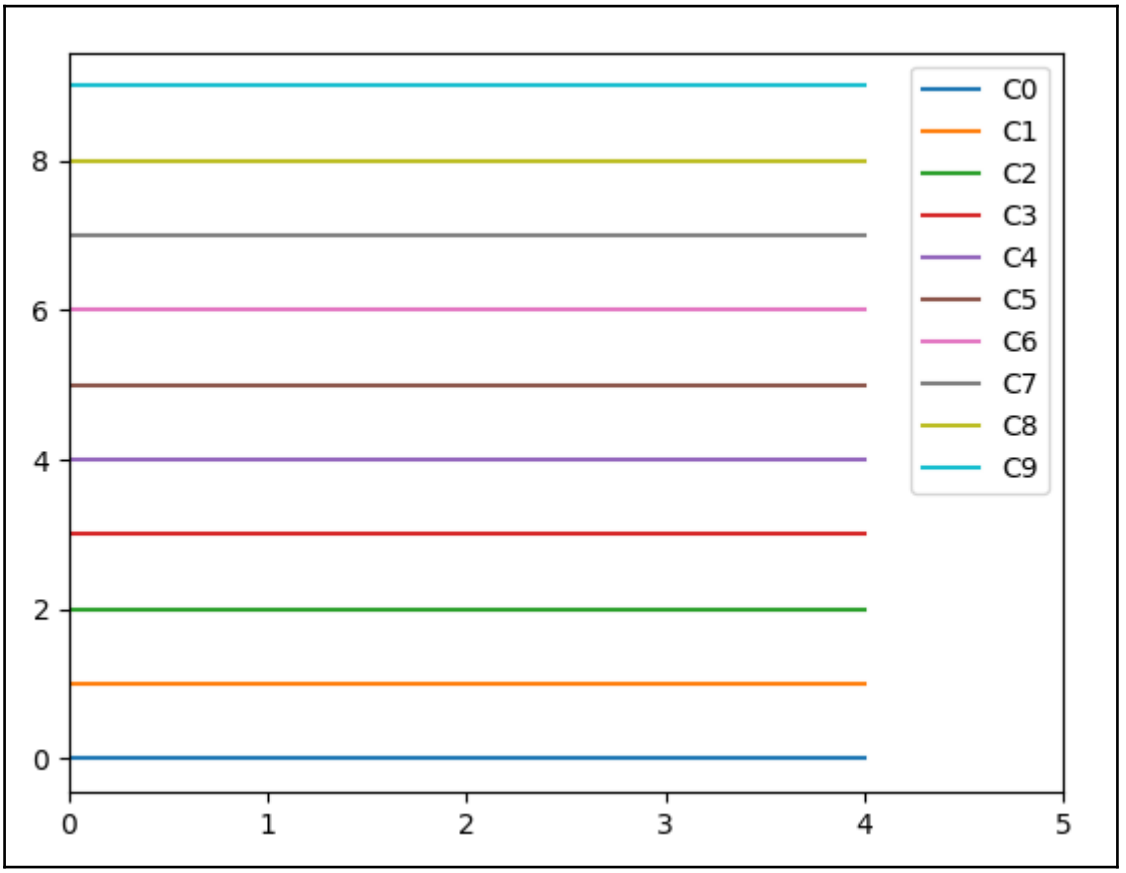
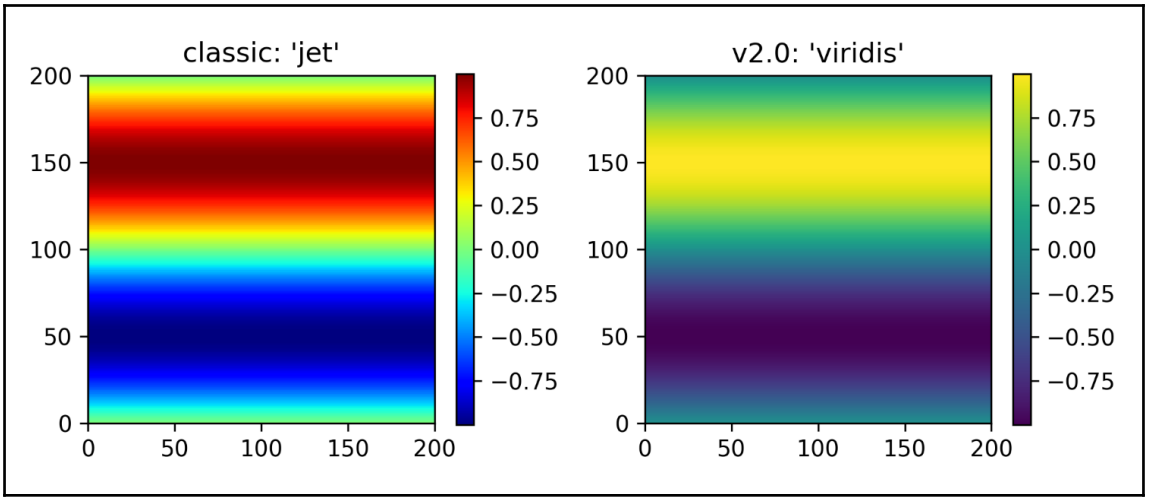
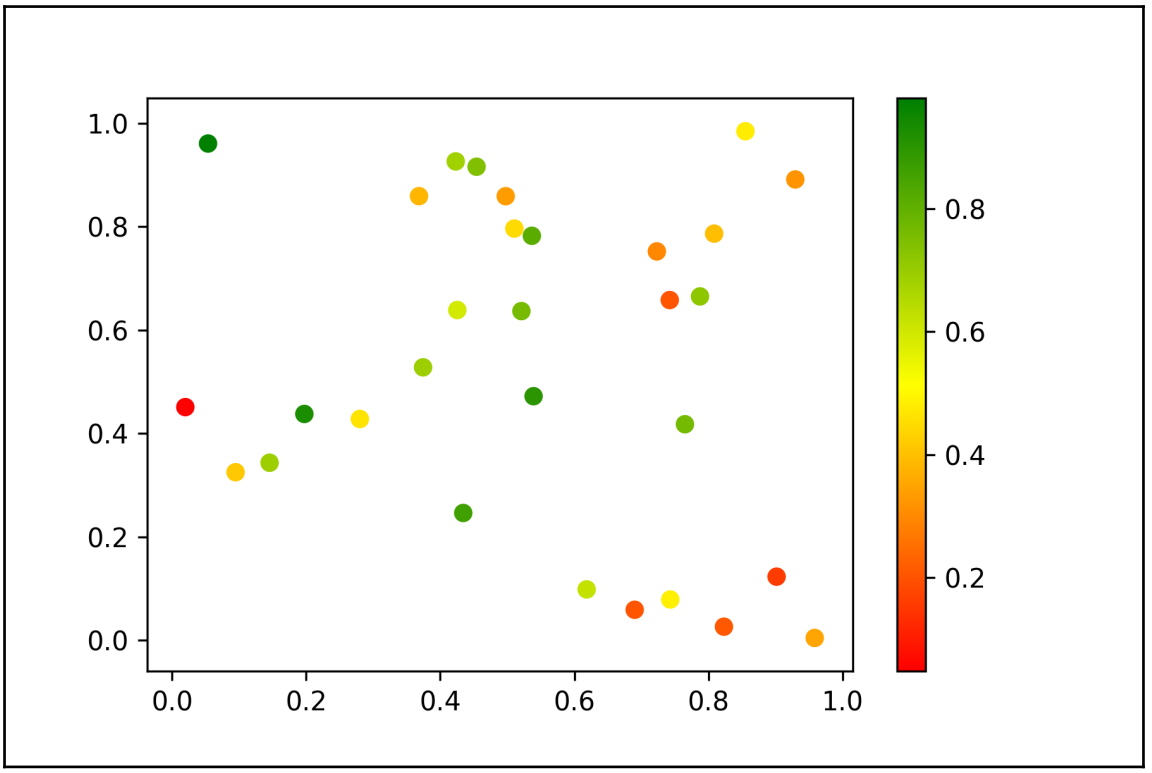


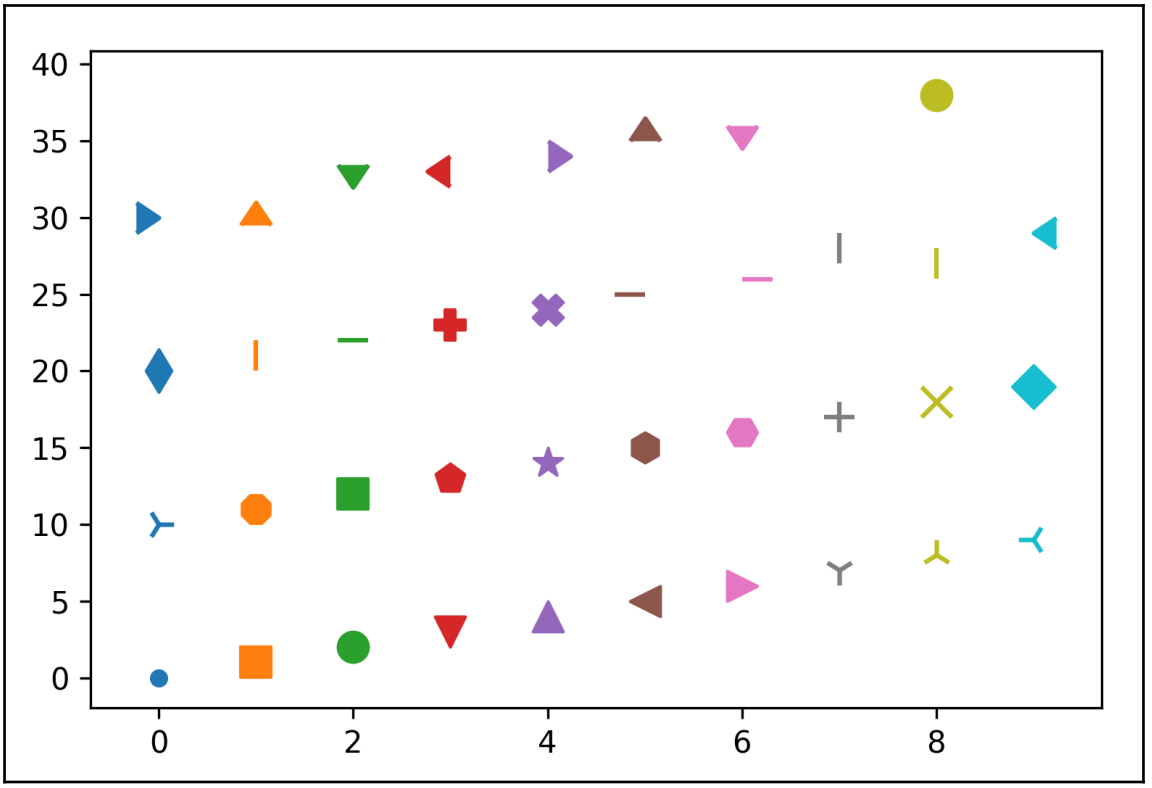
Figure 1
1600
1500
1400
1300
1200
−2
−1
0
1
2
3
zoom rect

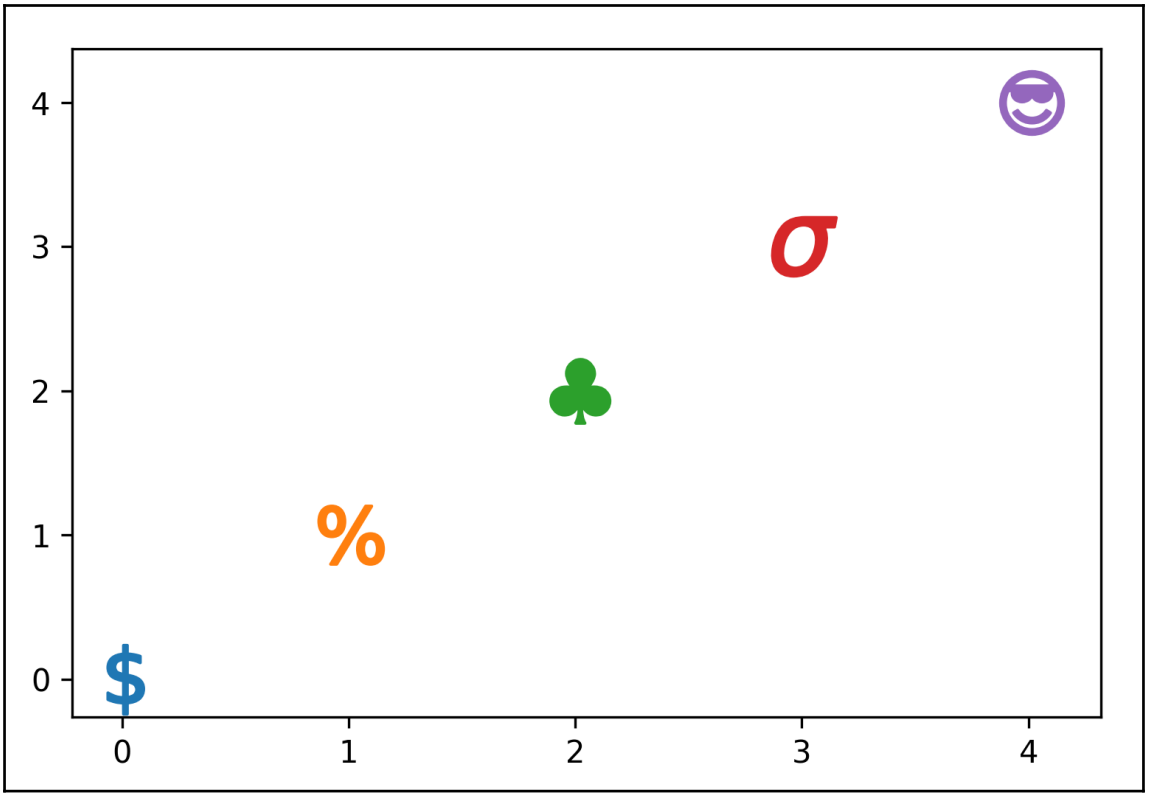
Chapter 3: Decorating Graphs with Plot Styles and Types

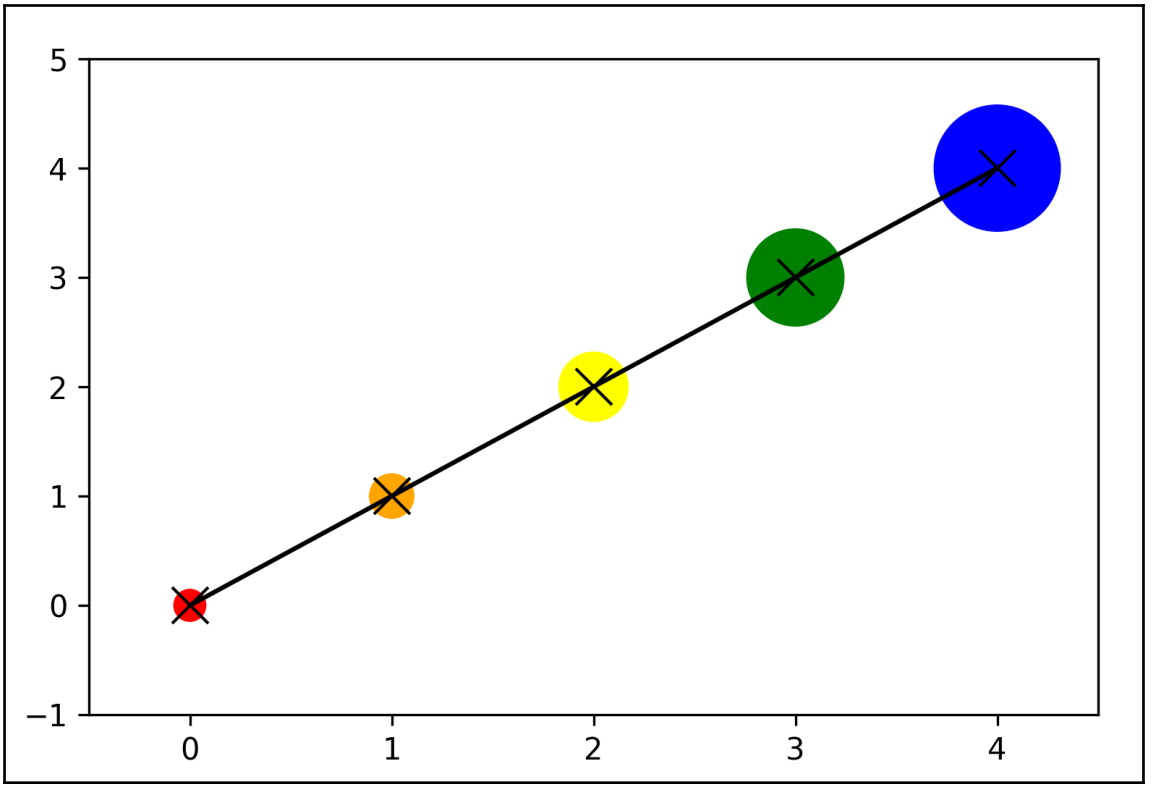


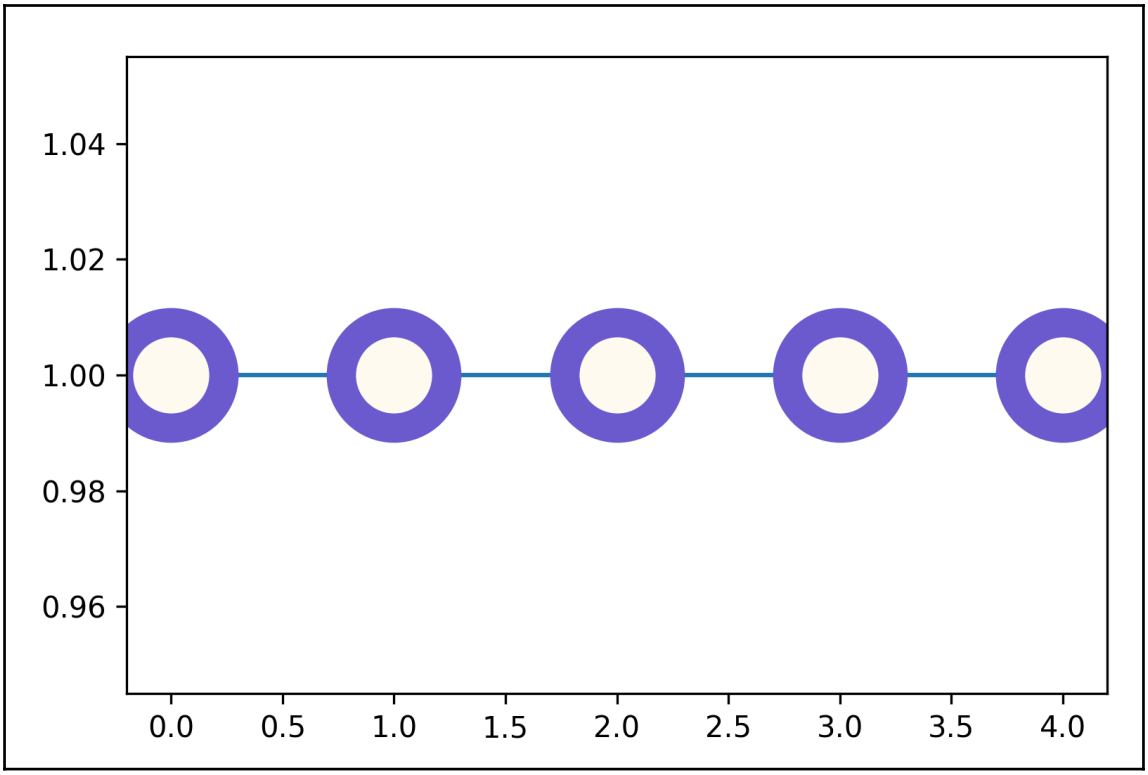

classic: 'jet'
v2.0: 'viridis'
200
150
100
50
0
0
50
100
150
200
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75

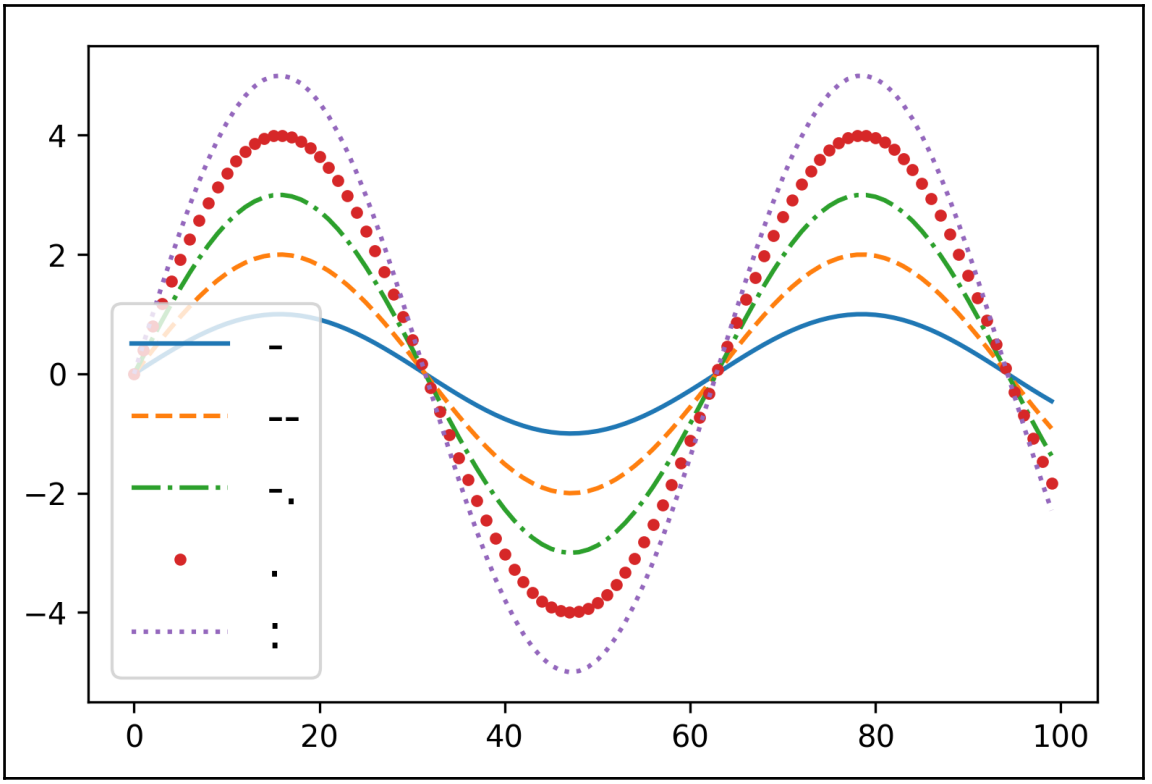

1.0
0.8
0.6
0.4
0.2
0.0
0.0
0.2
0.4
0.6
0.8
1.0
0.8
0.6
0.4
0.2

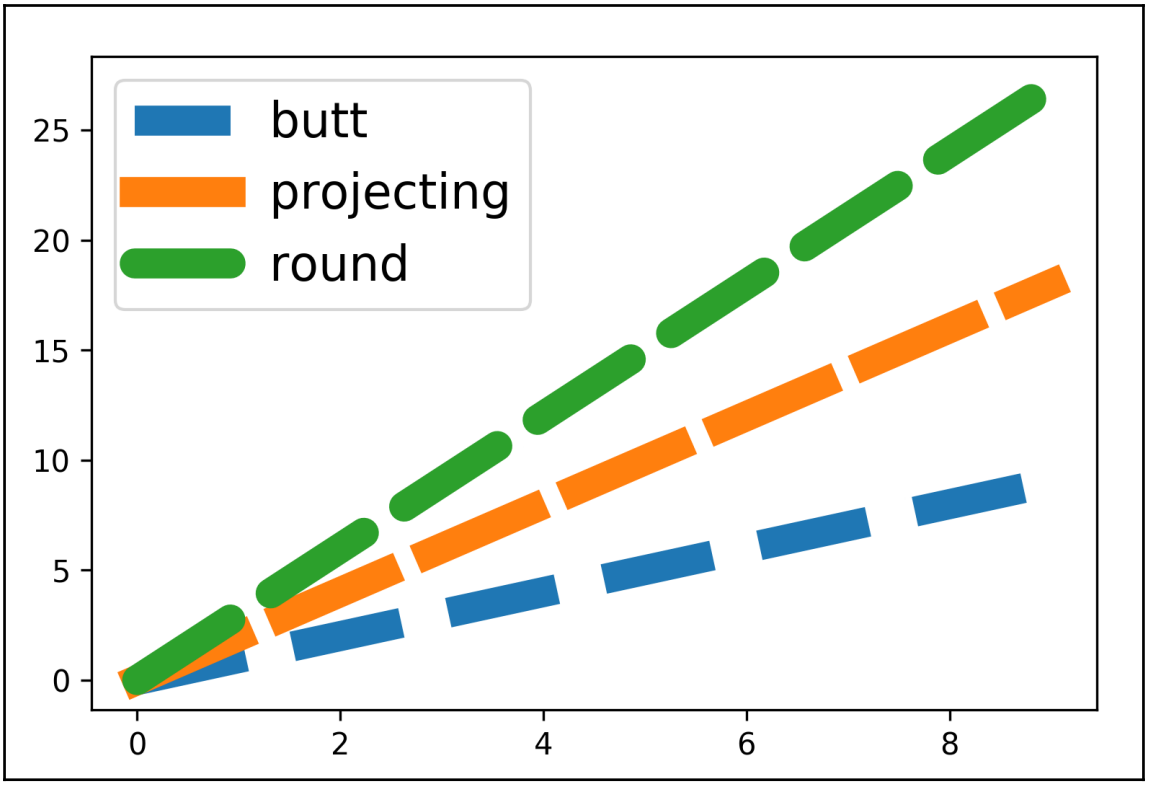

40
35
30
25
20
15
10
5
0
0
2
4
6
8

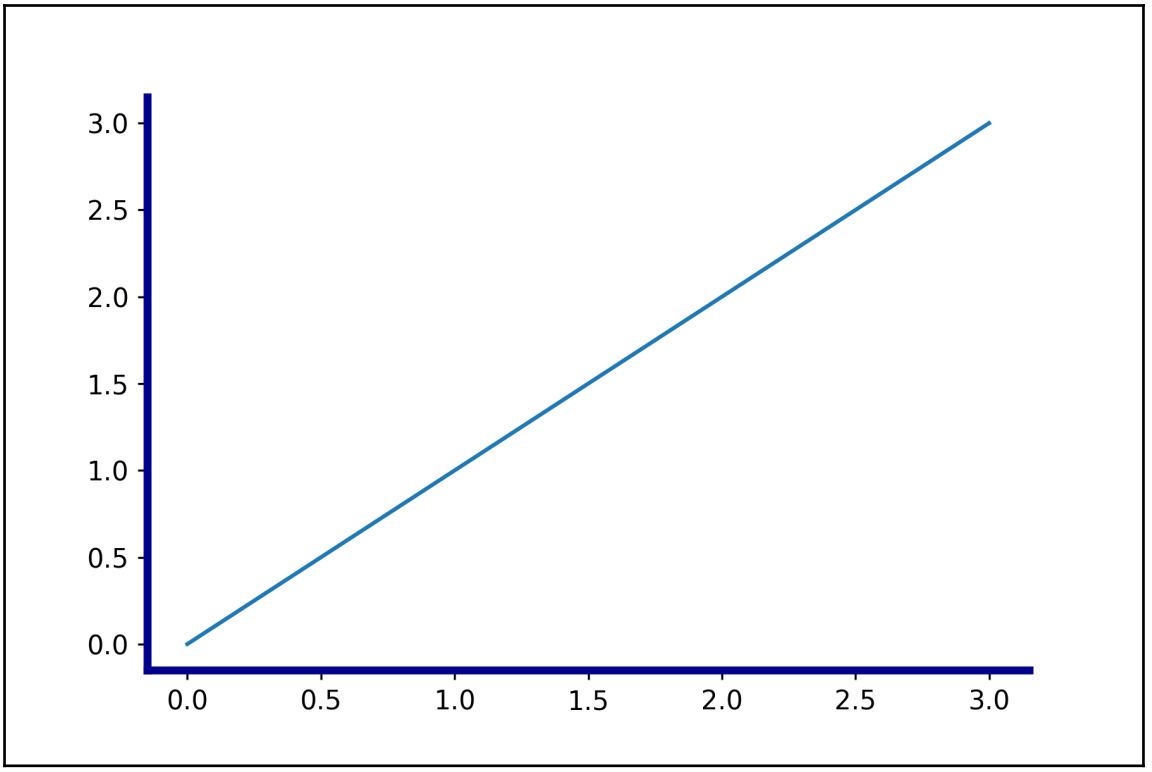

4
3
2
1
0
0
1
2
3
4
$
%
♣
σ

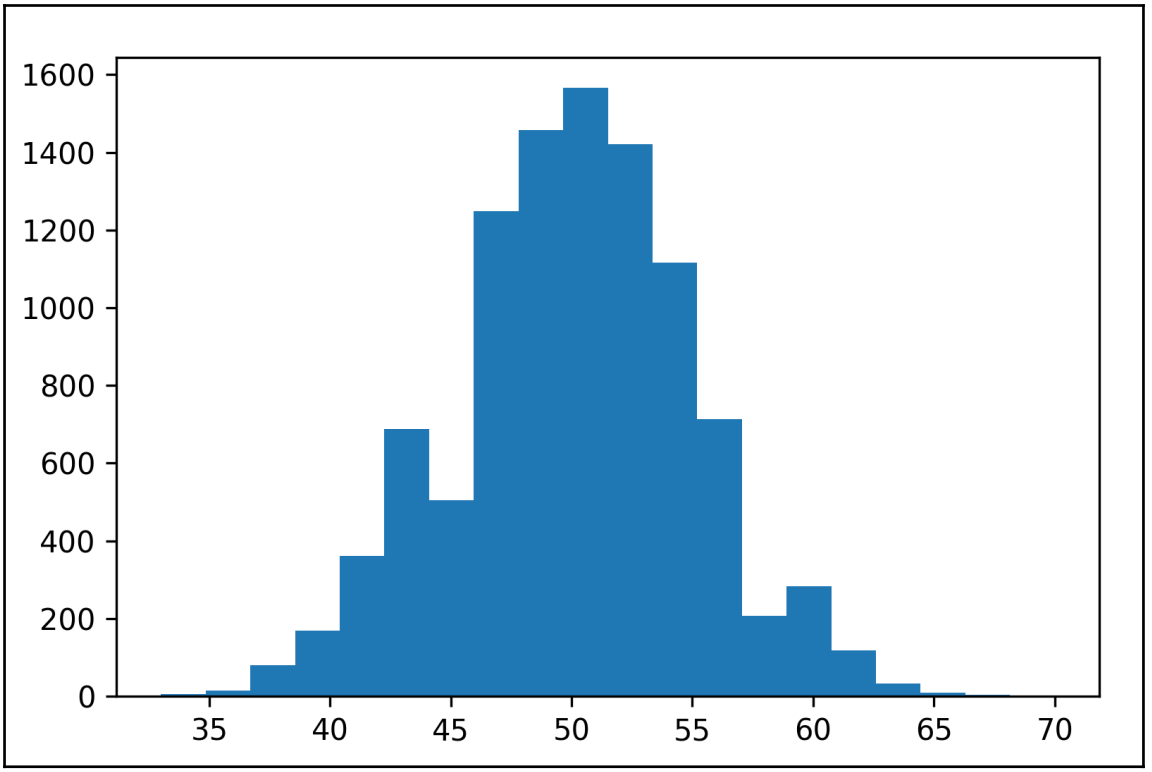

5
4
3
2
1
0
−1
0
1
2
3
4

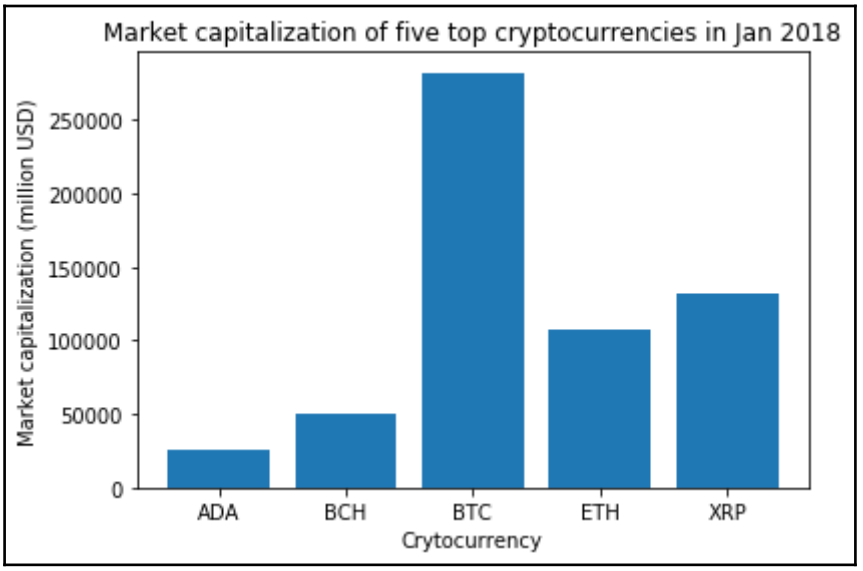

1.04
1.02
1.00
0.98
0.96
0.0
0.5
1.0
1.5
2.0
2.5
3.0
3.5
4.0

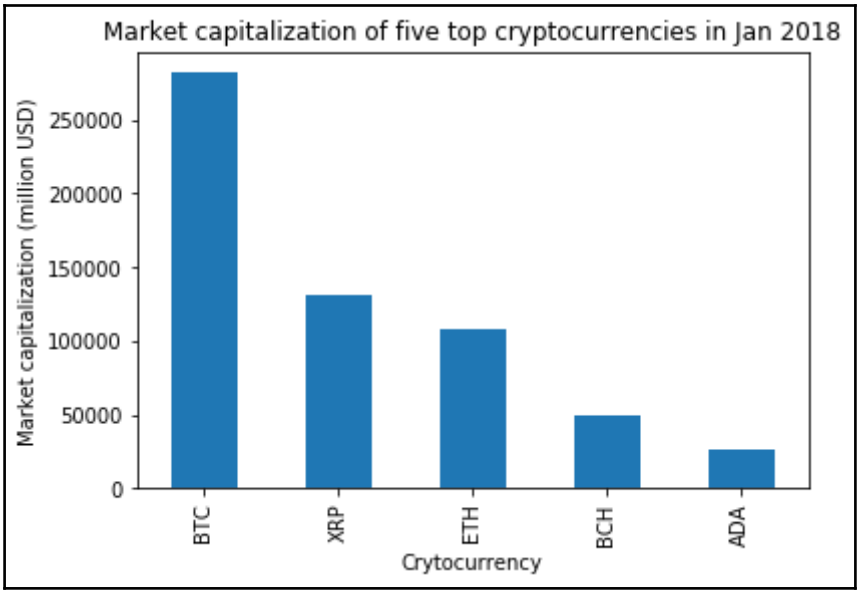

4
2
0
−2
−4
0
20
40
60
80
100
-
--
-.
.
:

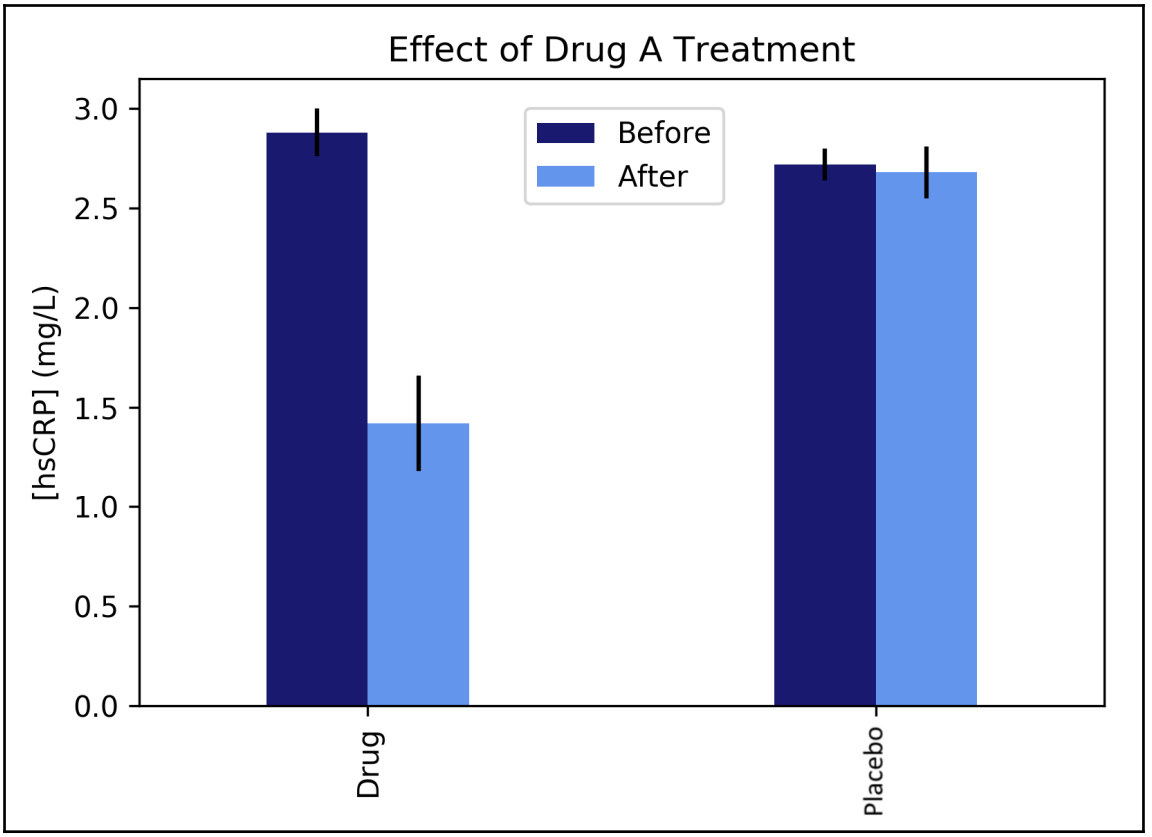

butt
projecting
round
25
20
15
10
5
0
0
2
4
6
8

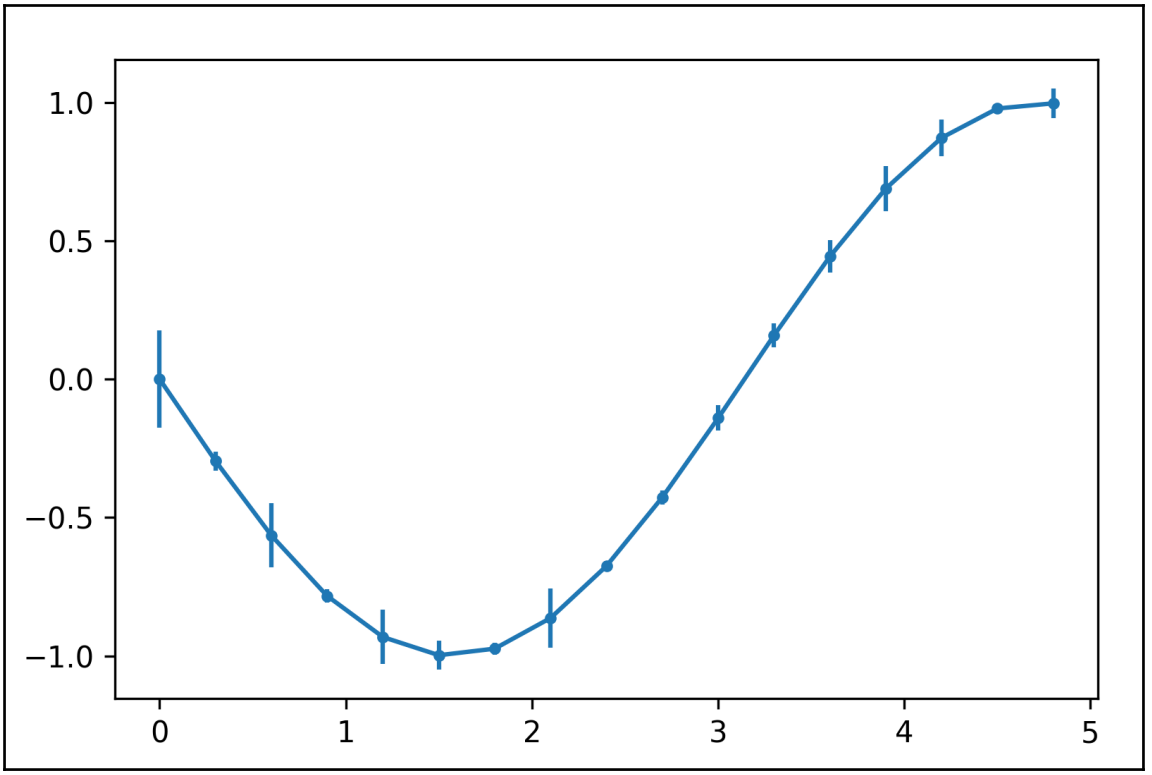

3.0
2.5
2.0
1.5
1.0
0.5
0.0
0.0
0.5
1.0
1.5
2.0
2.5
3.0

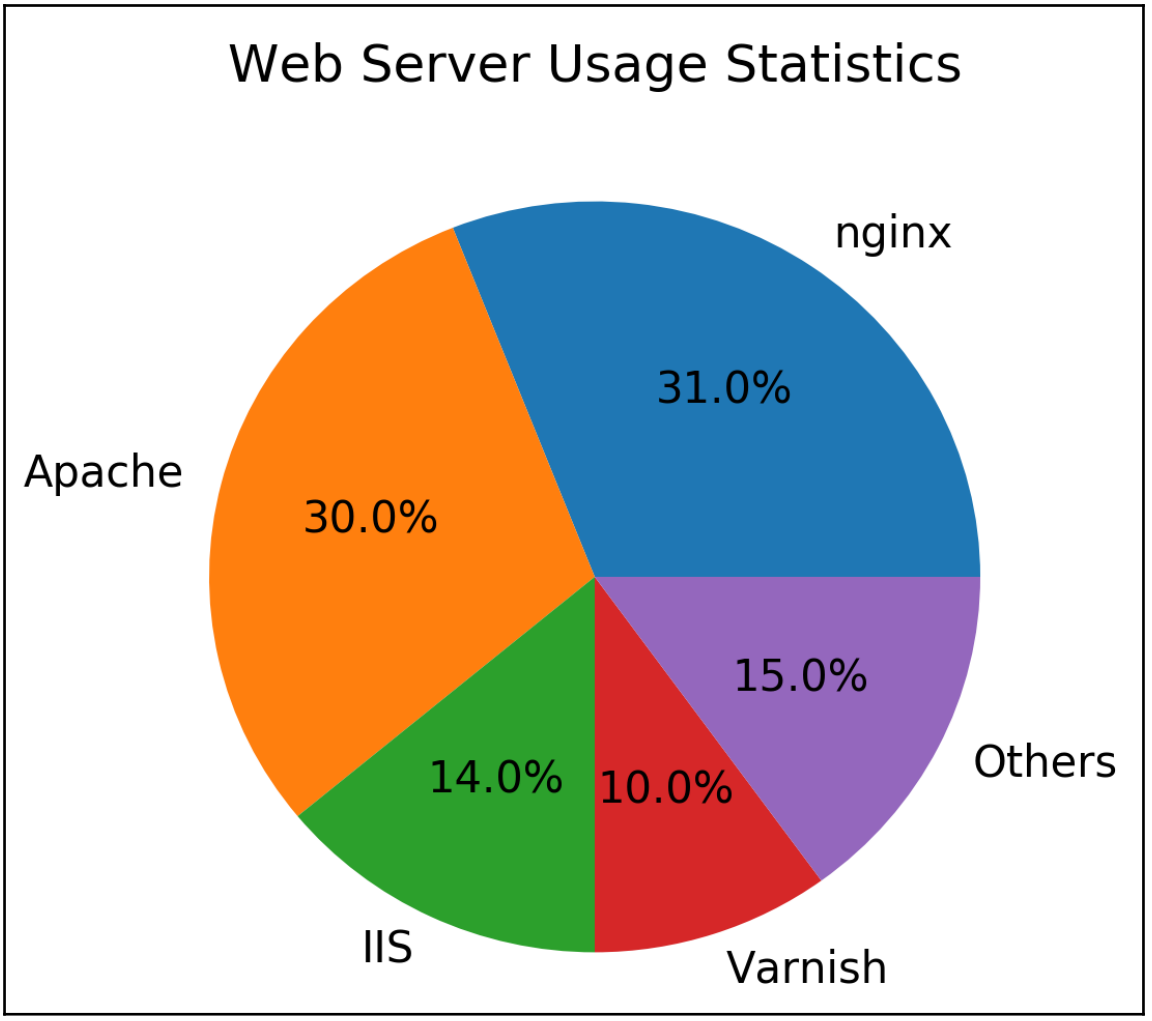

1600
1400
1200
1000
800
600
400
200
0
35
40
45
50
55
60
65
70

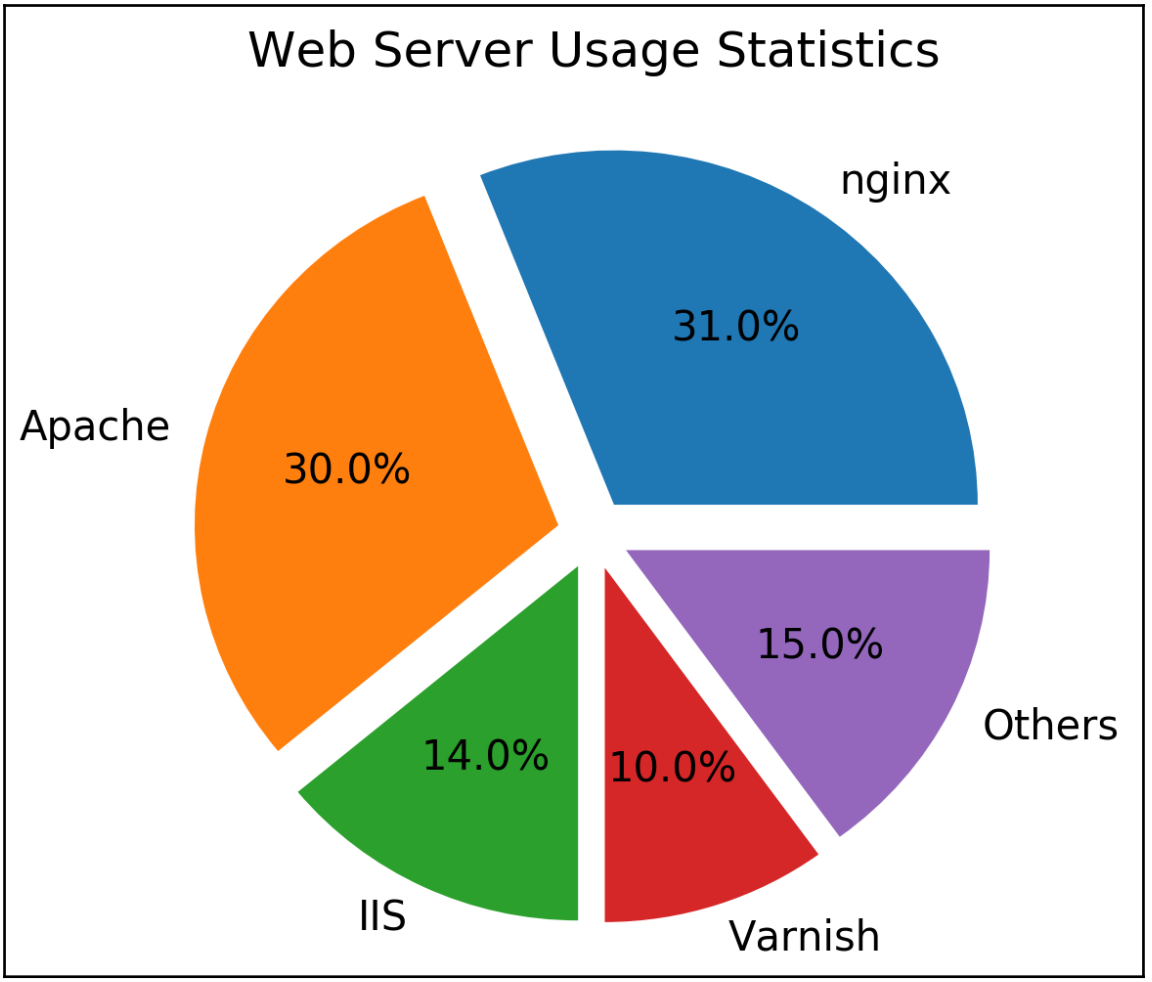

Market capitalization of five top cryptocurrencies in Jan 2018
Market capitalization (million USD)
250000
200000
150000
100000
50000
0
ADA
BCH
BTC
ETH
XRP
Crytocurrency

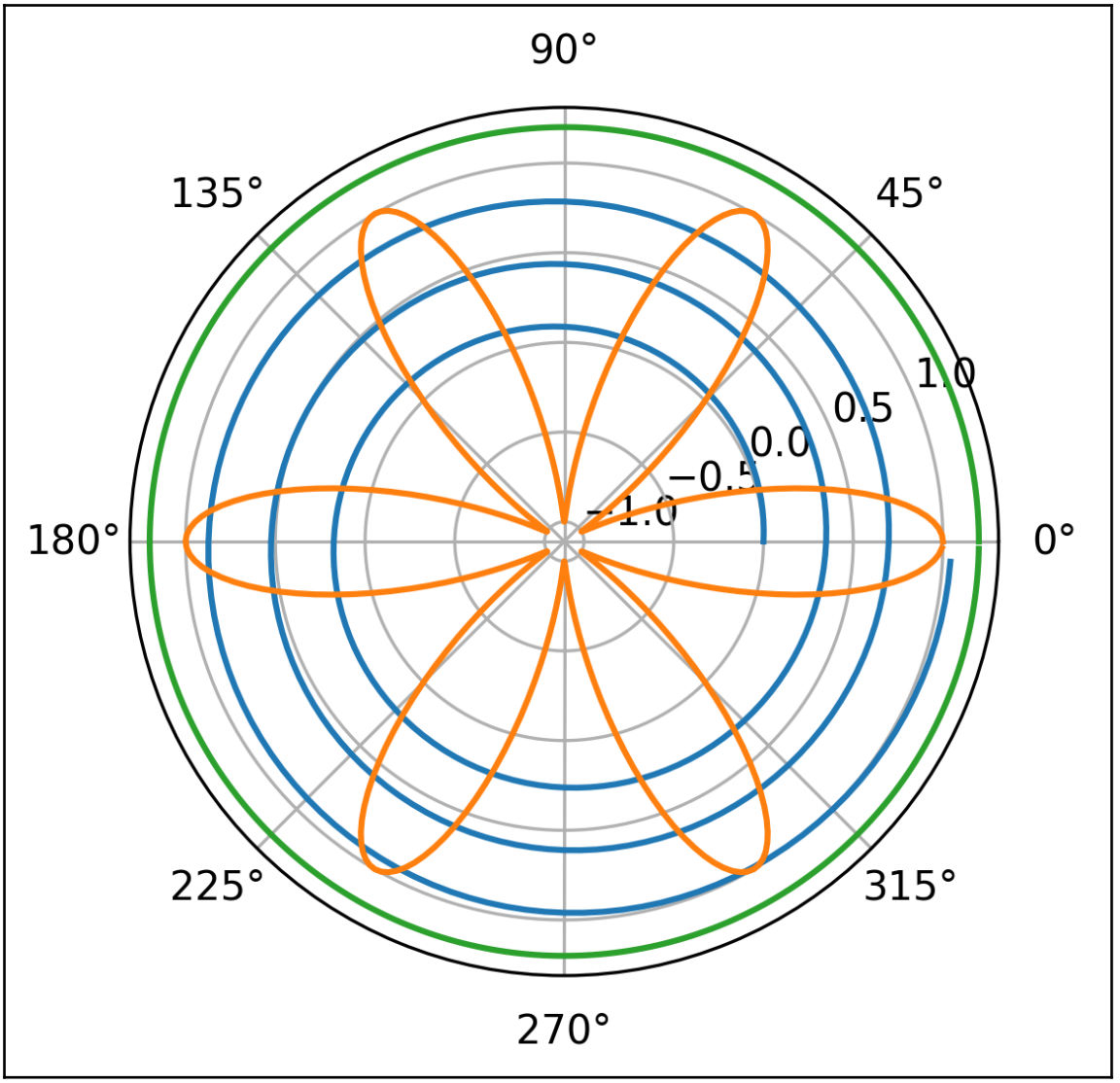

Market capitalization of five top cryptocurrencies in Jan 2018
Market capitalization (million USD)
250000
200000
150000
100000
50000
0
BTC
XRP
ETH
BCH
ADA
Crytocurrency

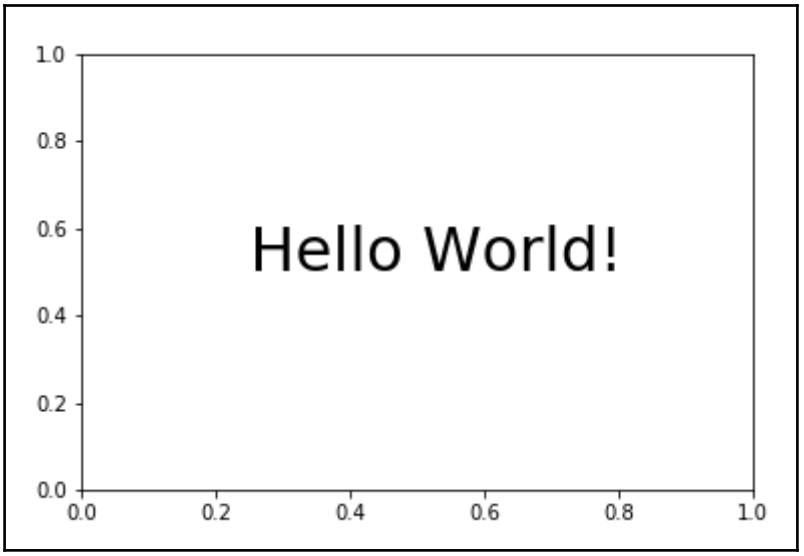

Effect of Drug A Treatment
Before
After
[hsCRP] (mg/L)
3.0
2.5
2.0
1.5
1.0
0.5
0.0
Drug
Placebo

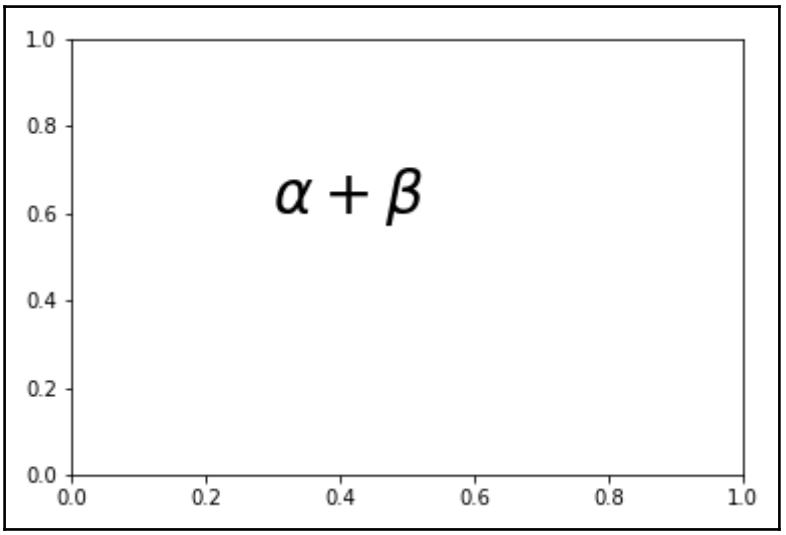

1.0
0.5
0.0
−0.5
−1.0
0
1
2
3
4
5

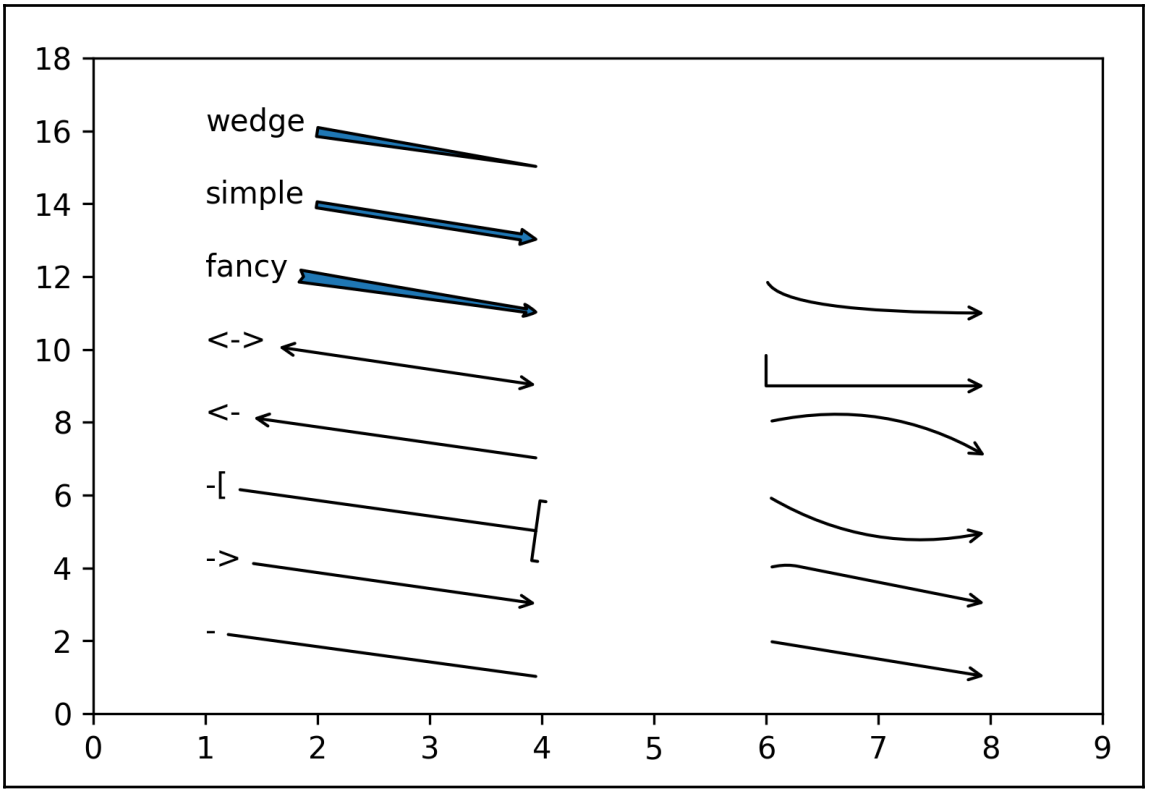

Web Server Usage Statistics
nginx
31.0%
Apache
30.0%
15.0%
Others
14.0%
10.0%
IIS
Varnish


Web Server Usage Statistics
nginx
31.0%
Apache
30.0%
15.0%
Others
14.0%
10.0%
IIS
Varnish


90°
135°
45°
180°
0°
225°
315°
270°
1.0
0.5
0.0
−0.5
−1.0


Hello World!
1.0
0.8
0.6
0.4
0.2
0.0
0.0
0.2
0.4
0.6
0.8
1.0

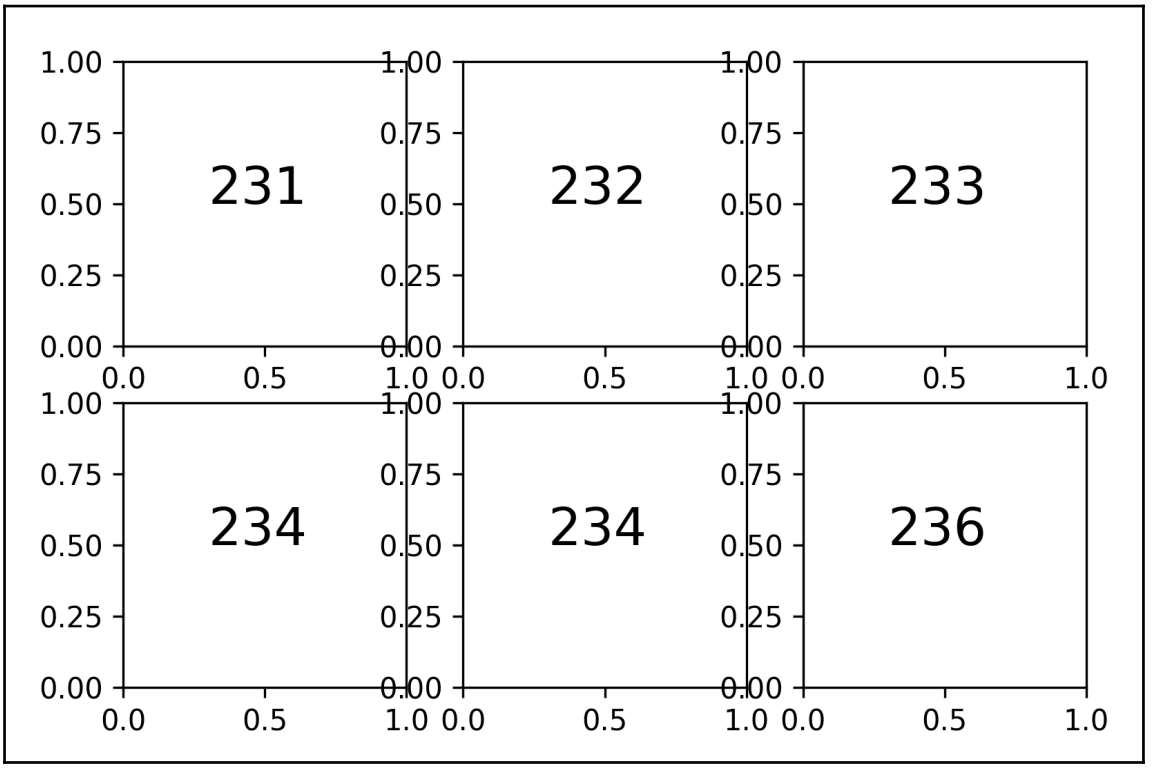

$\alpha + \beta$
1.0
0.8
0.6
0.4
0.2
0.0
0.0
0.2
0.4
0.6
0.8
1.0

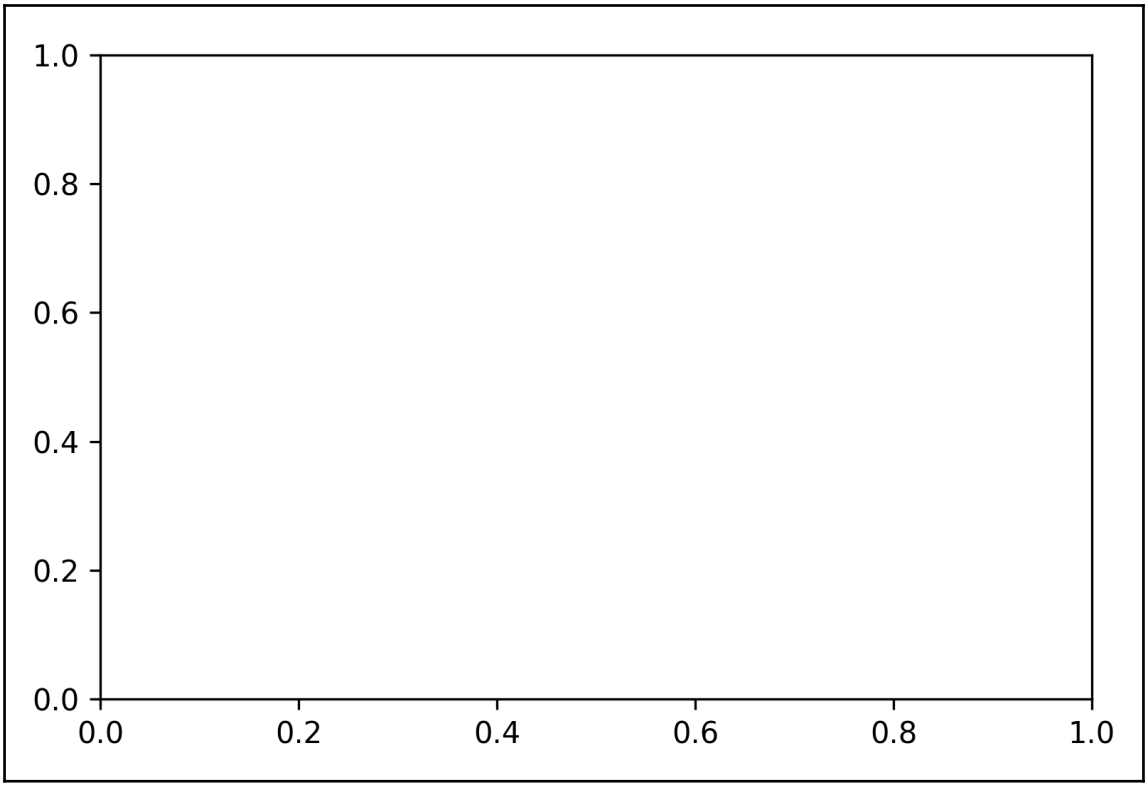

wedge
simple
fancy
<->
<-
-[
->
-
0
2
4
6
8
10
12
14
16
18
0
1
2
3
4
5
6
7
8
9

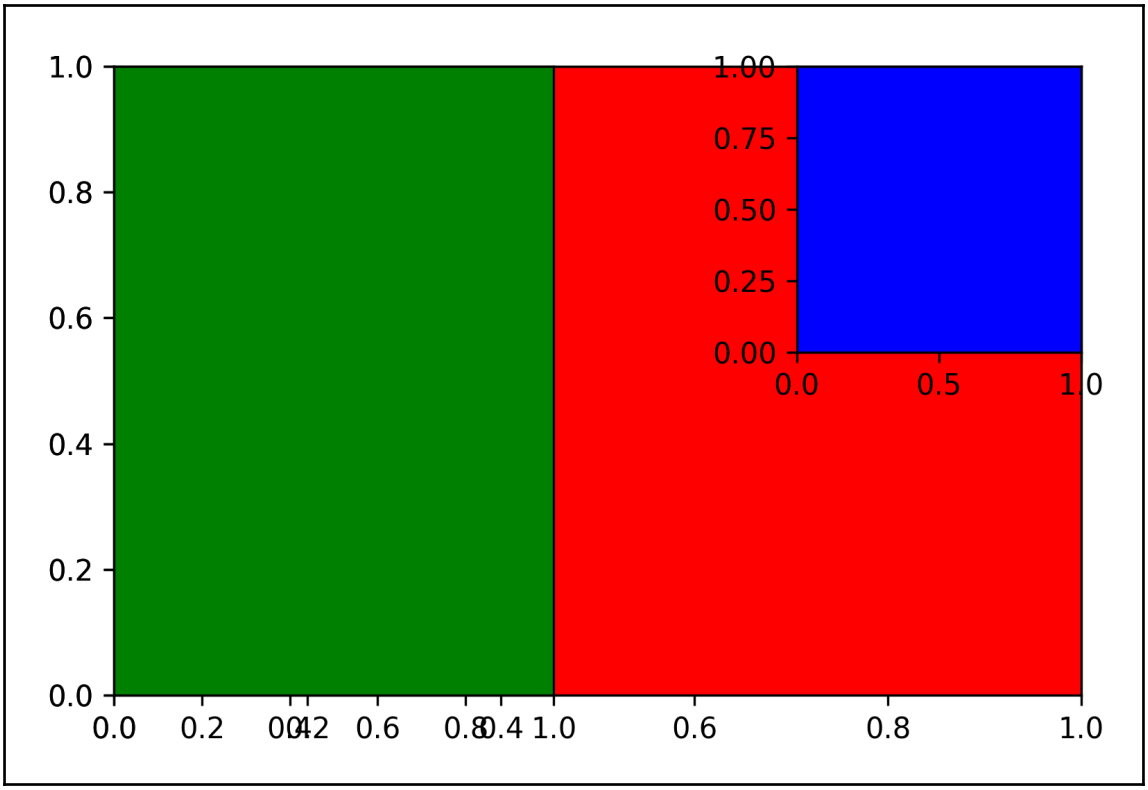
Chapter 4: Advanced Matplotlib

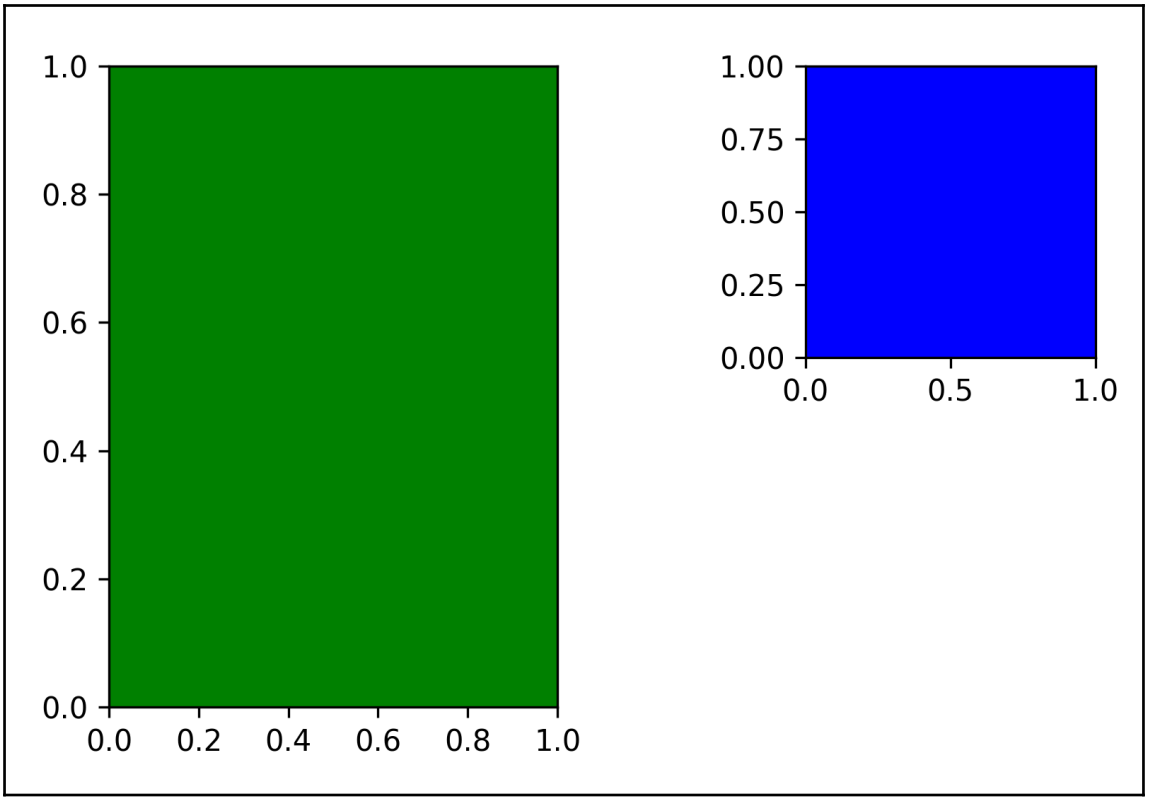
```
In [1]: import matplotlib.pyplot as plt
        plt.figure()
        plt.show()

        <matplotlib.figure.Figure at 0x7efea014dd30>
```




1.0
0.8
0.6
0.4
0.2
0.0
0.0
0.2
0.4
0.6
0.8
1.0

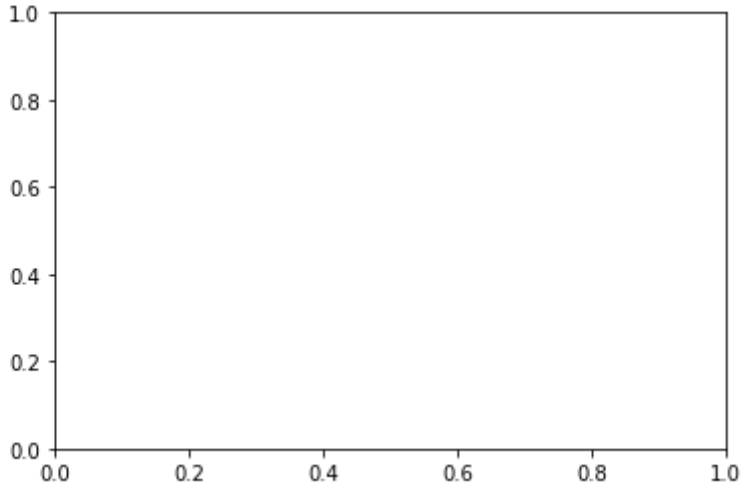

1.0
0.8
0.6
0.4
0.2
0.0
0.0
0.2
0.4
0.6
0.8
1.0
0.4
0.6
0.8
1.0
1.00
0.75
0.50
0.25
0.00
0.0
0.5
1.0

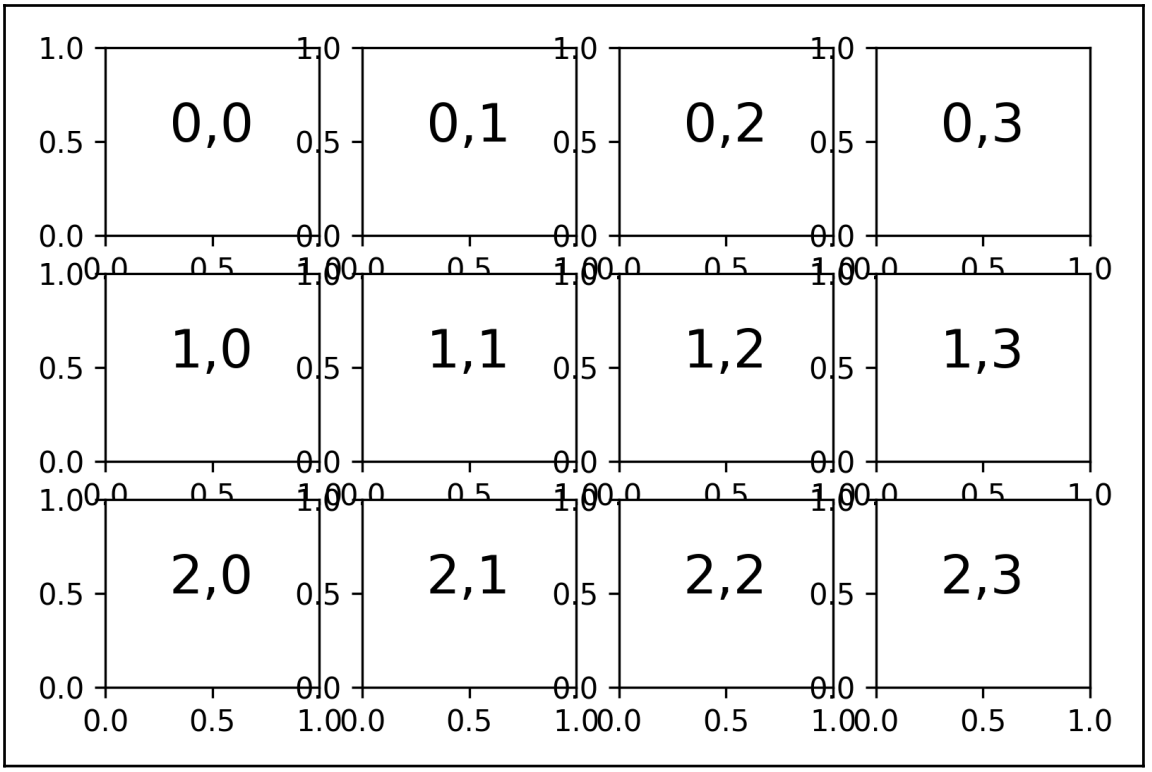

1.0
0.8
0.6
0.4
0.2
0.0
0.0
0.2
0.4
0.6
0.8
1.0
1.00
0.75
0.50
0.25
0.00
0.0
0.5
1.0

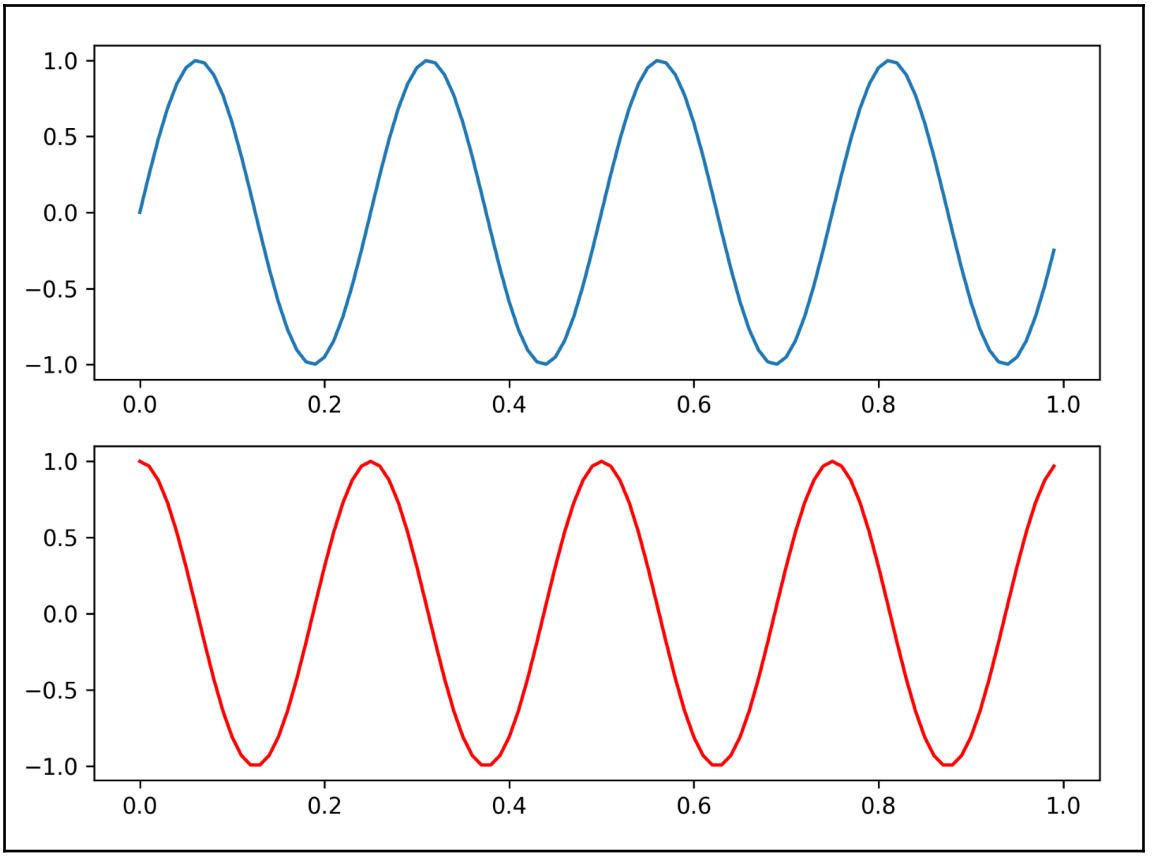
```
In [25]: import matplotlib.pyplot as plt
         fig, axarr = plt.subplots(1,1)
         print(type(fig))
         print(type(axarr))

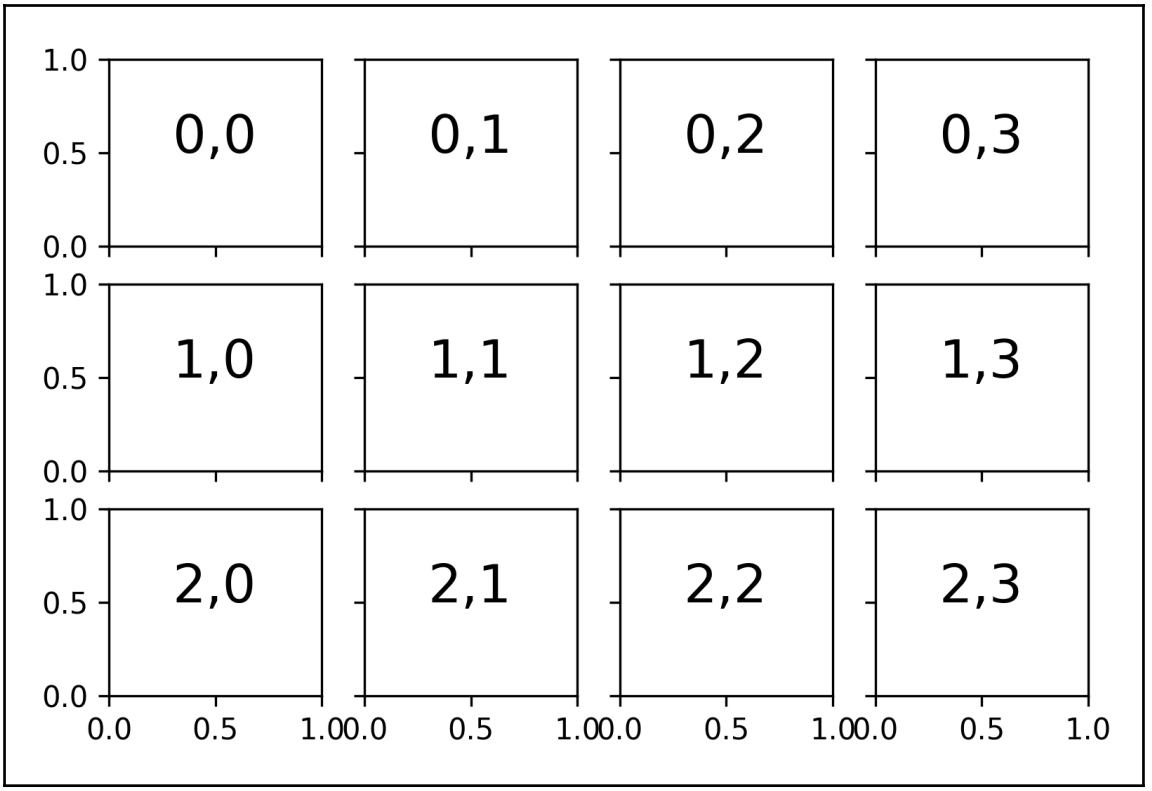
         plt.show()
```

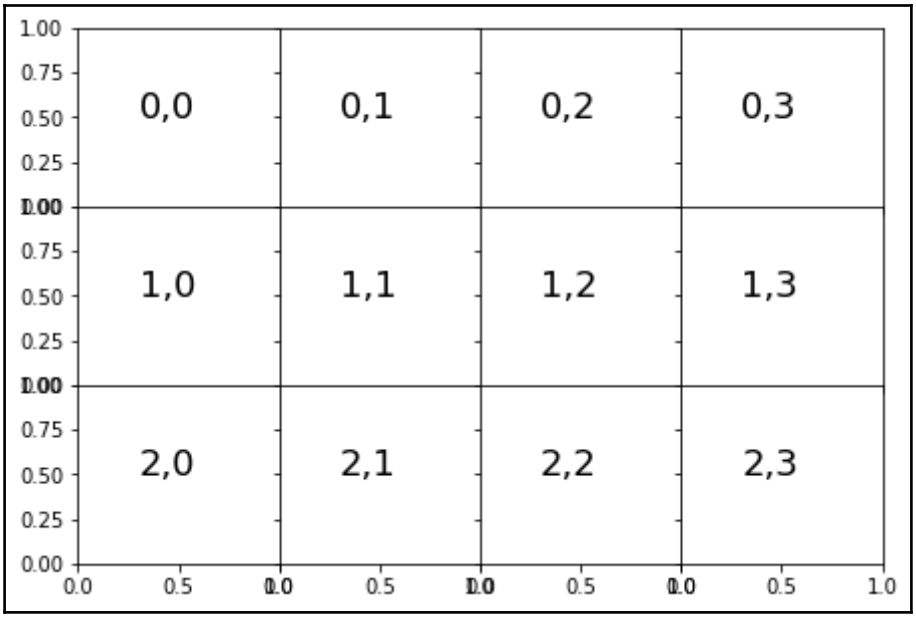
```
<class 'matplotlib.figure.Figure'>
<class 'matplotlib.axes._subplots.AxesSubplot'>
```

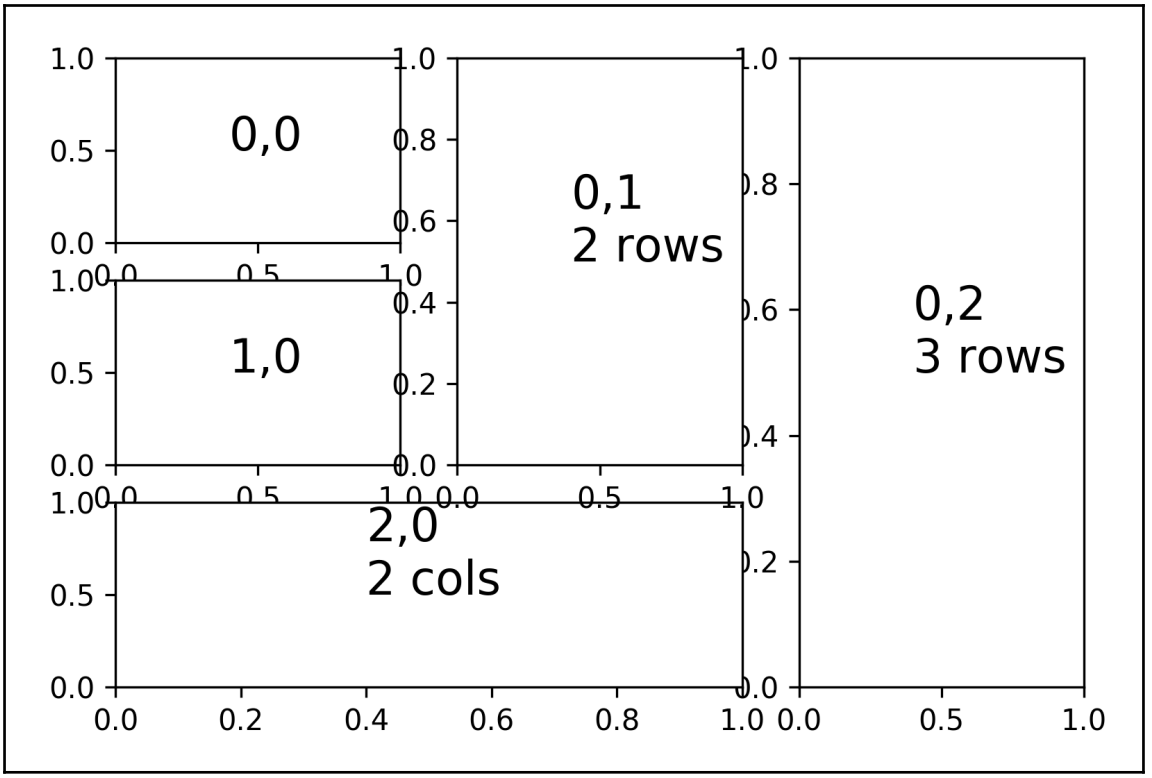


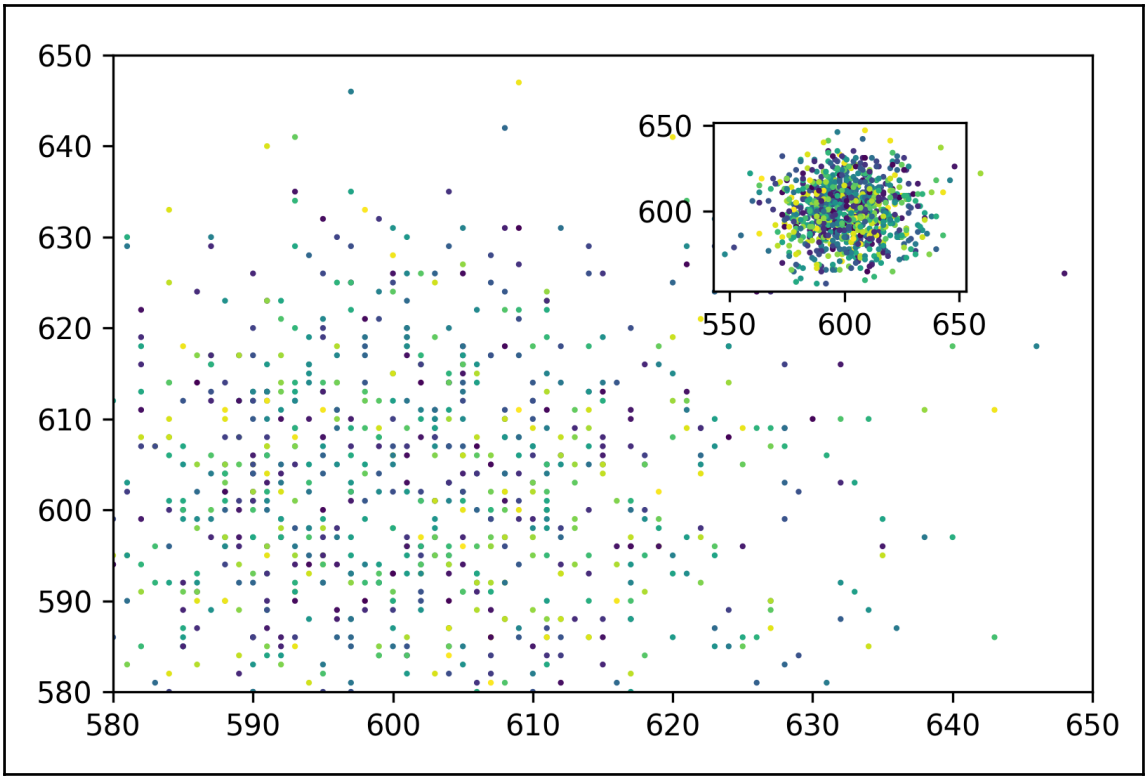

0,0
0,1
0,2
0,3
1,0
1,1
1,2
1,3
2,0
2,1
2,2
2,3
0.0
0.5
1.0

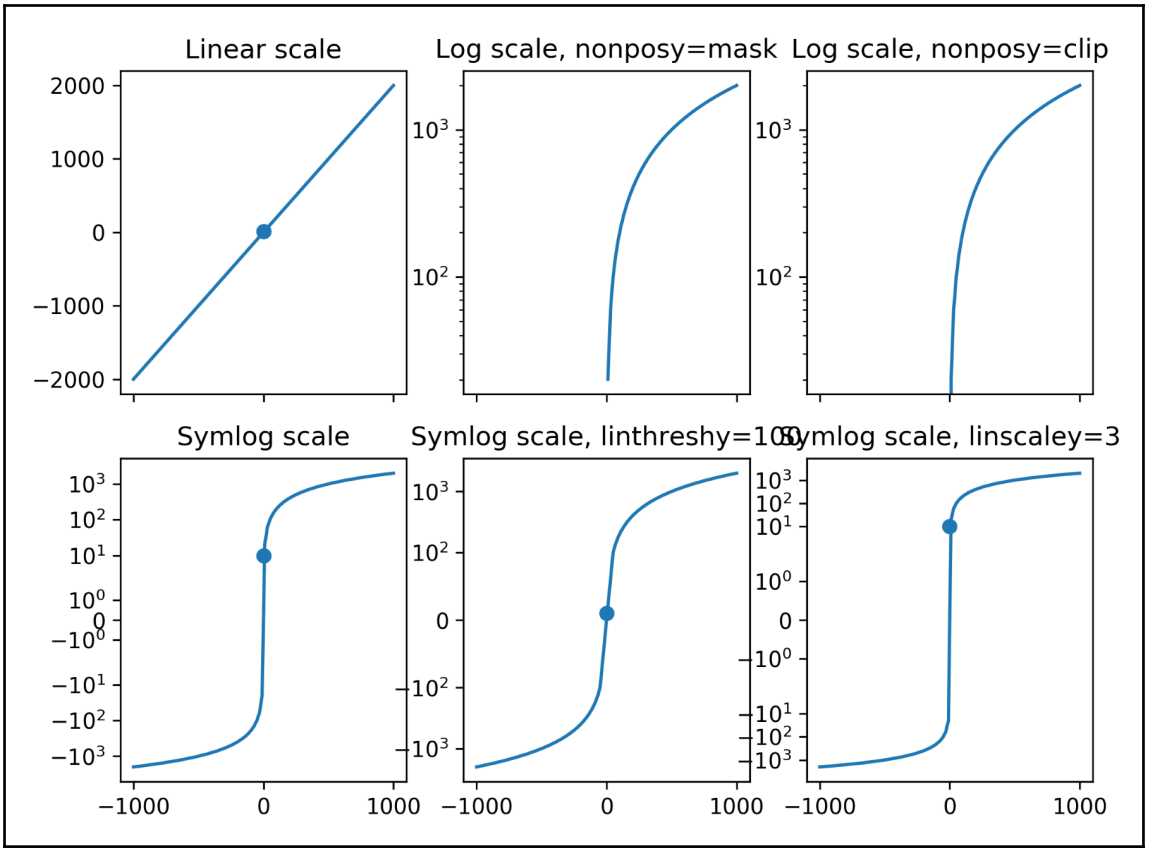

1.0
0.5
0.0
−0.5
−1.0
0.0
0.2
0.4
0.6
0.8
1.0
1.0
0.5
0.0
−0.5
−1.0
0.0
0.2
0.4
0.6
0.8
1.0

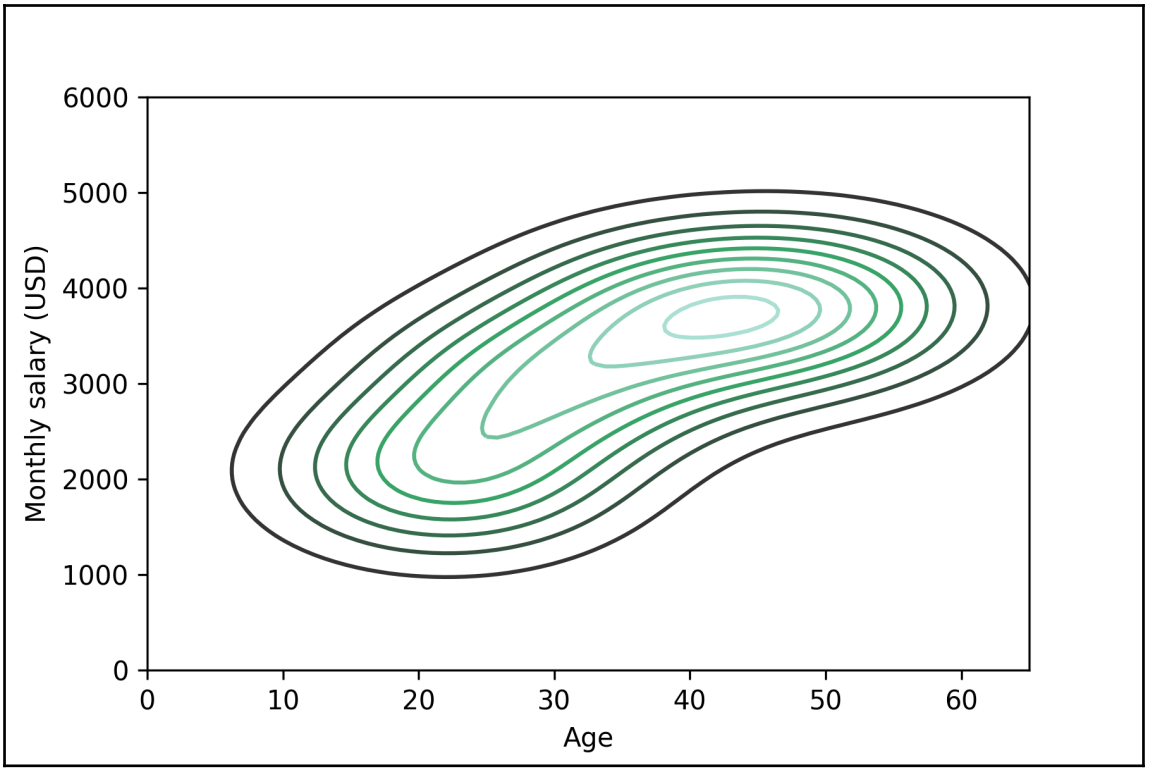

0,0
0,1
0,2
0,3
1,0
1,1
1,2
1,3
2,0
2,1
2,2
2,3
1.0
0.5
0.0
0.0
0.5
1.0

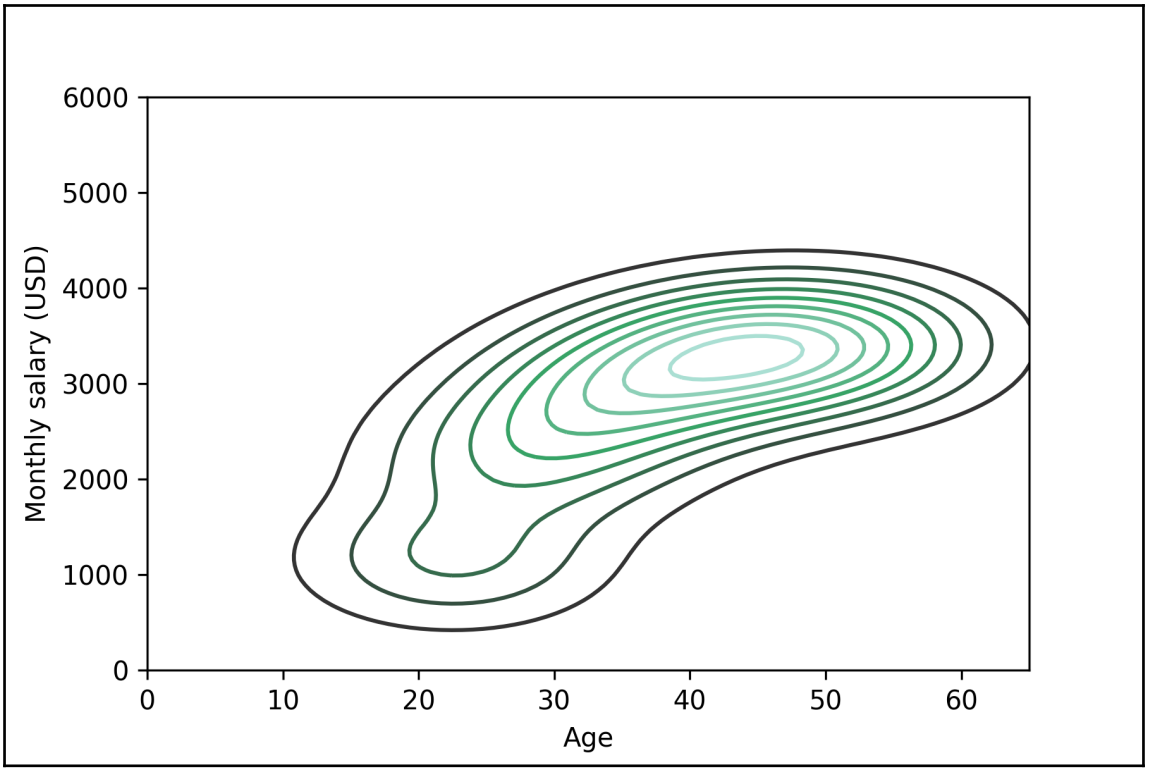

0,0
0,1
0,2
0,3
1,0
1,1
1,2
1,3
2,0
2,1
2,2
2,3
1.00
0.75
0.50
0.25
0.00
0.0
0.5
1.0

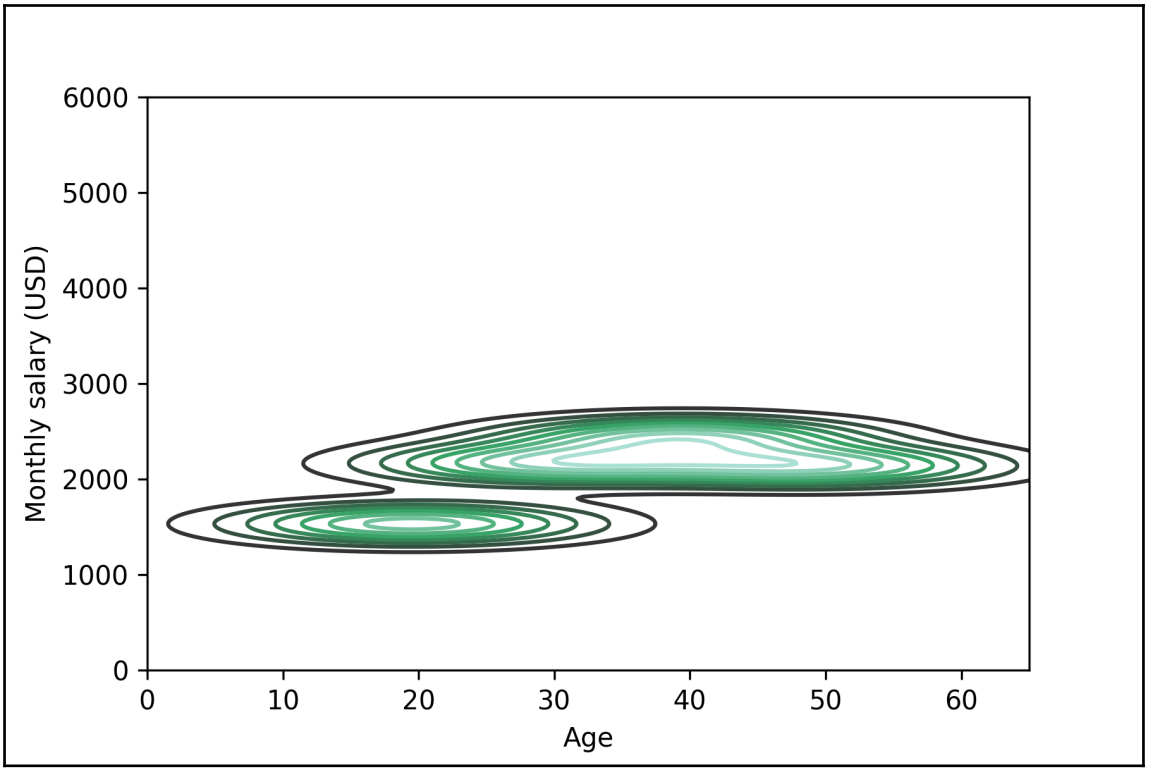

0,0
0,1
2 rows
0,2
3 rows
1,0
2,0
2 cols

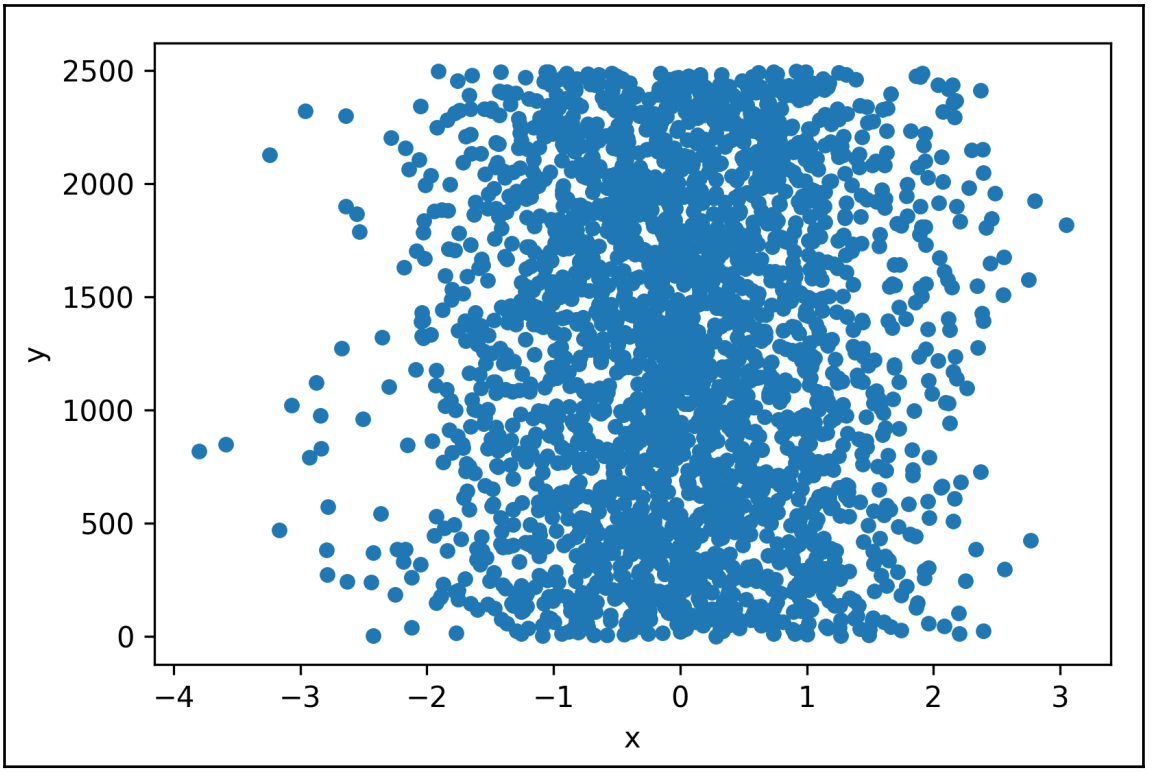

650
640
630
620
610
600
590
580
580
590
600
610
620
630
640
650
650
600
550
600
650

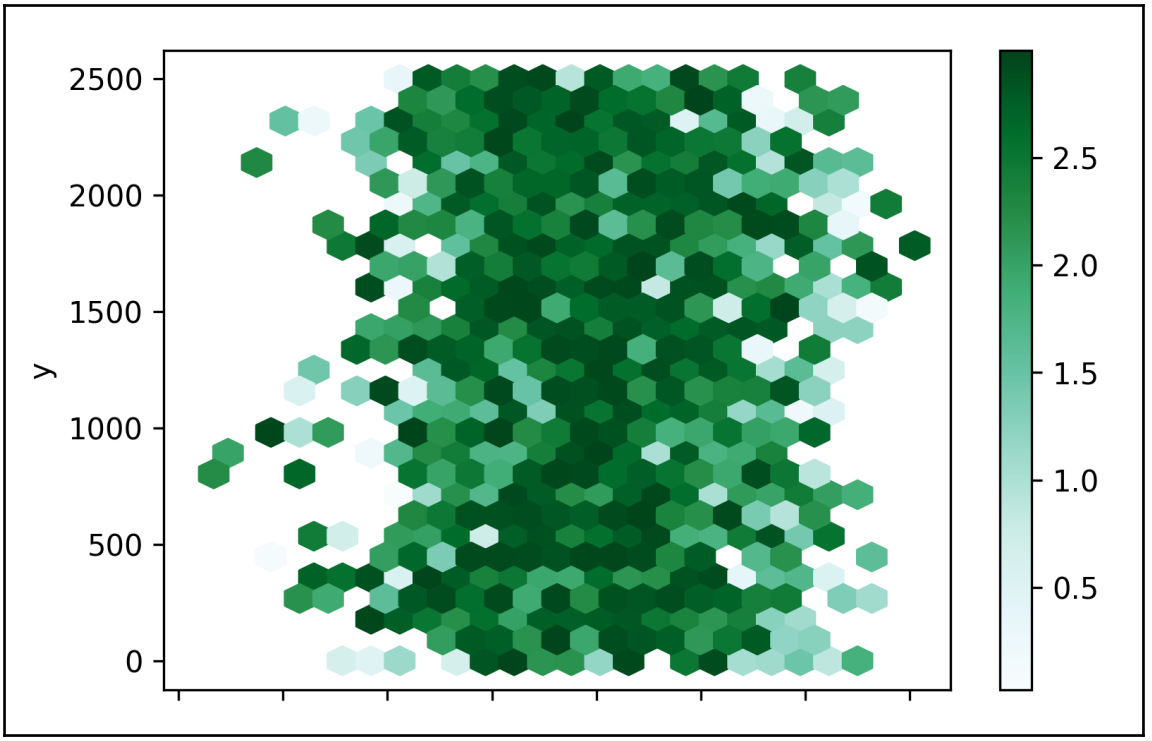

Linear scale
Log scale, nonposy=mask
Log scale, nonposy=clip
Symlog scale
Symlog scale, linthreshy=100
Symlog scale, linscaley=3


6000
5000
4000
3000
2000
1000
0
Monthly salary (USD)
0
10
20
30
40
50
60
Age


6000
5000
4000
3000
2000
1000
0
Monthly salary (USD)
0
10
20
30
40
50
60
Age

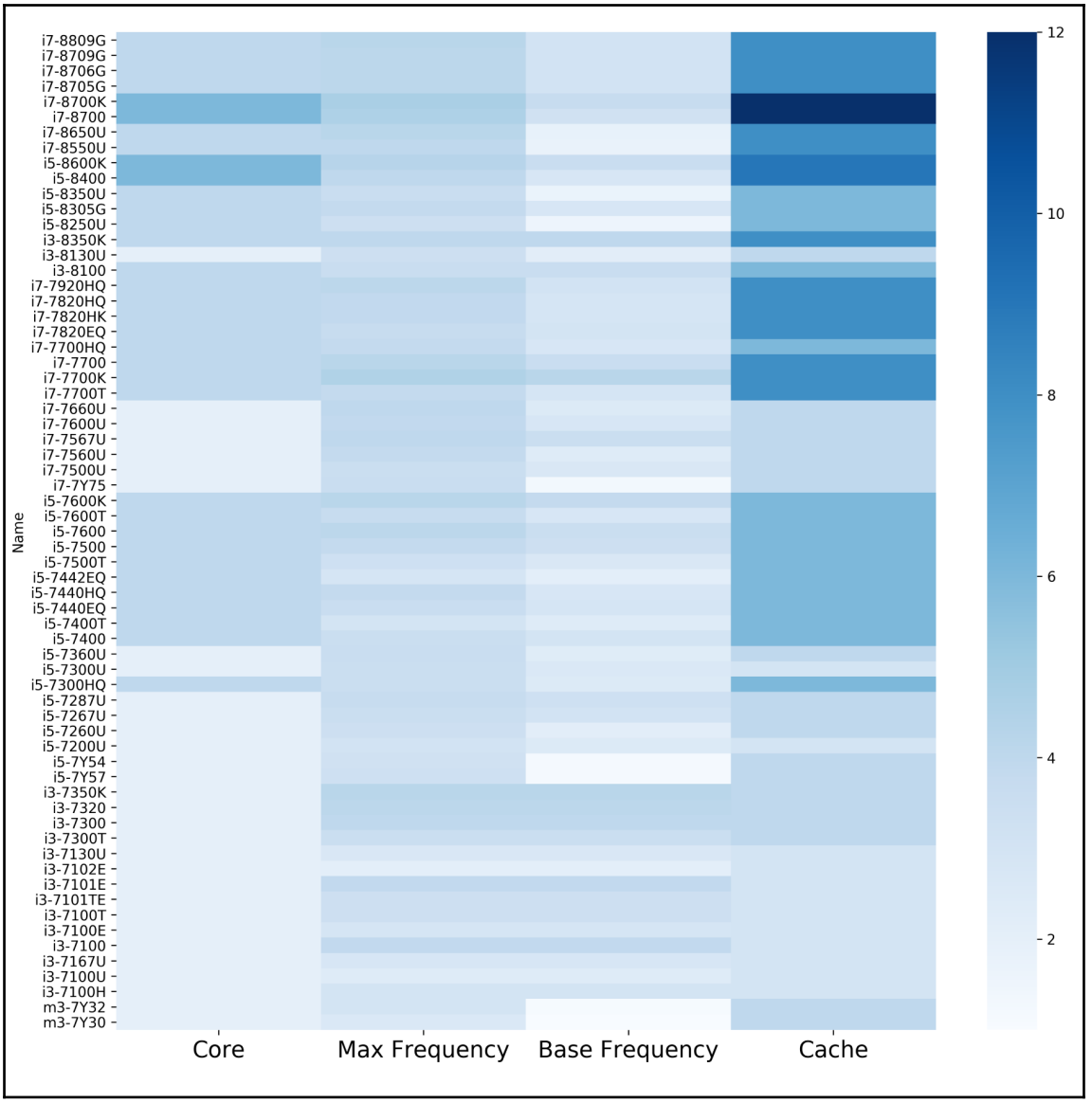

6000
5000
4000
3000
2000
1000
0
Monthly salary (USD)
0
10
20
30
40
50
60
Age

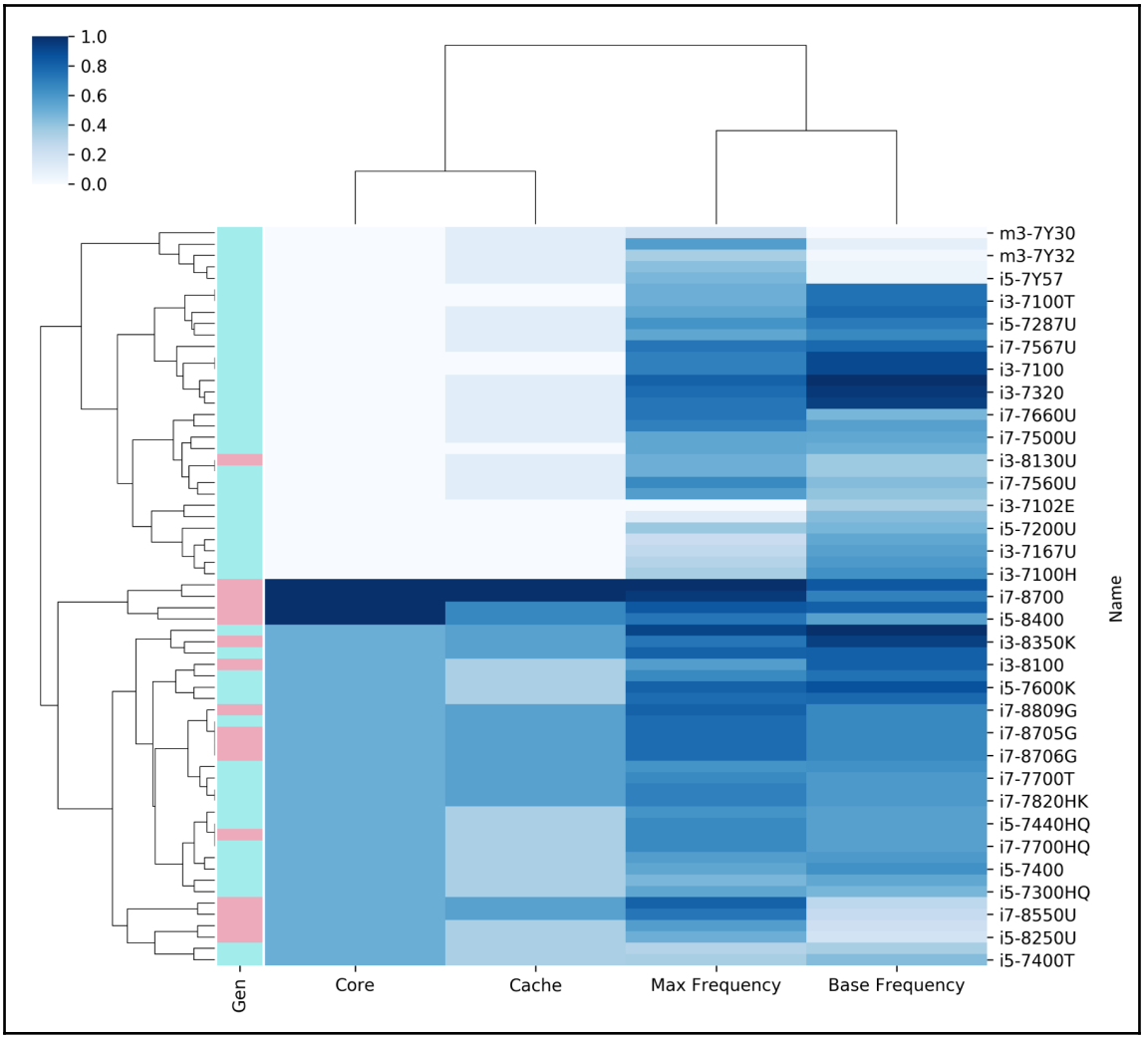

2500
2000
1500
1000
500
0
y
−4
−3
−2
−1
0
1
2
3
x

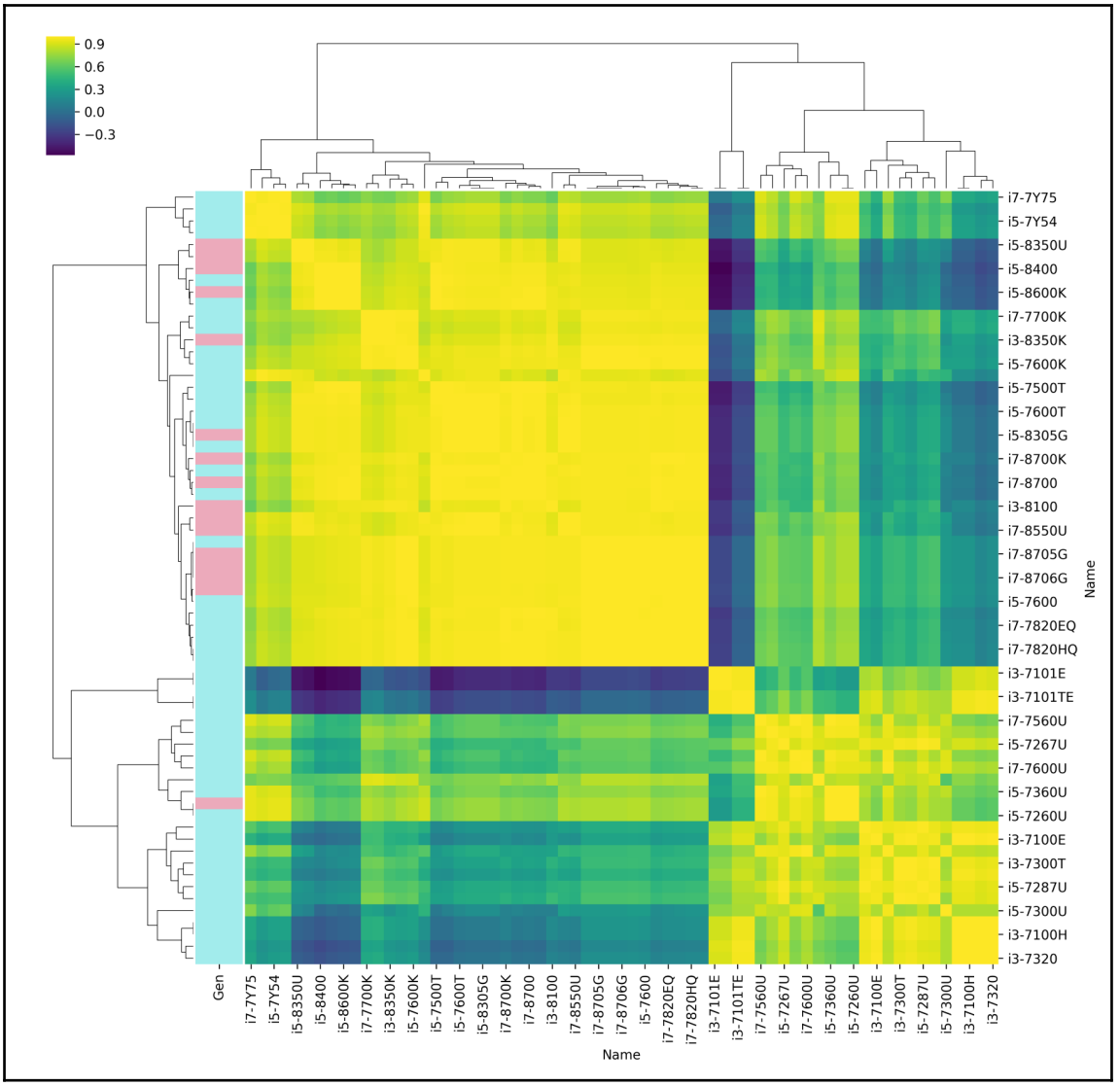

2500
2000
1500
1000
500
0
y
2.5
2.0
1.5
1.0
0.5

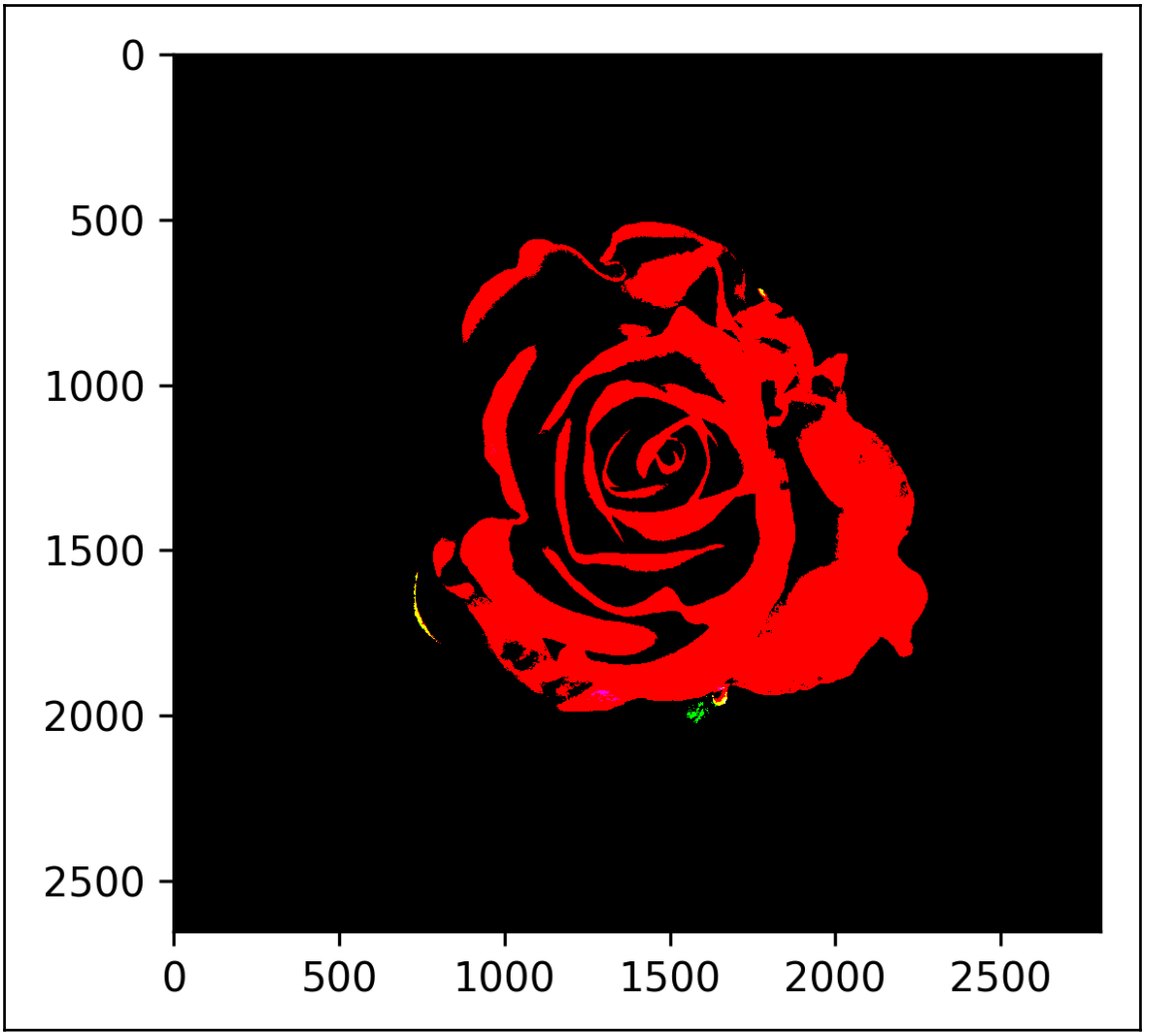
```
<class 'pandas.core.frame.DataFrame'>
Index: 65 entries, i7-8809G to m3-7Y30
Data columns (total 5 columns):
Core               65 non-null int64
Max Frequency      49 non-null float64
Base Frequency     65 non-null float64
Cache              65 non-null int64
Gen                65 non-null int64
dtypes: float64(2), int64(3)
memory usage: 3.0+ KB
None
```

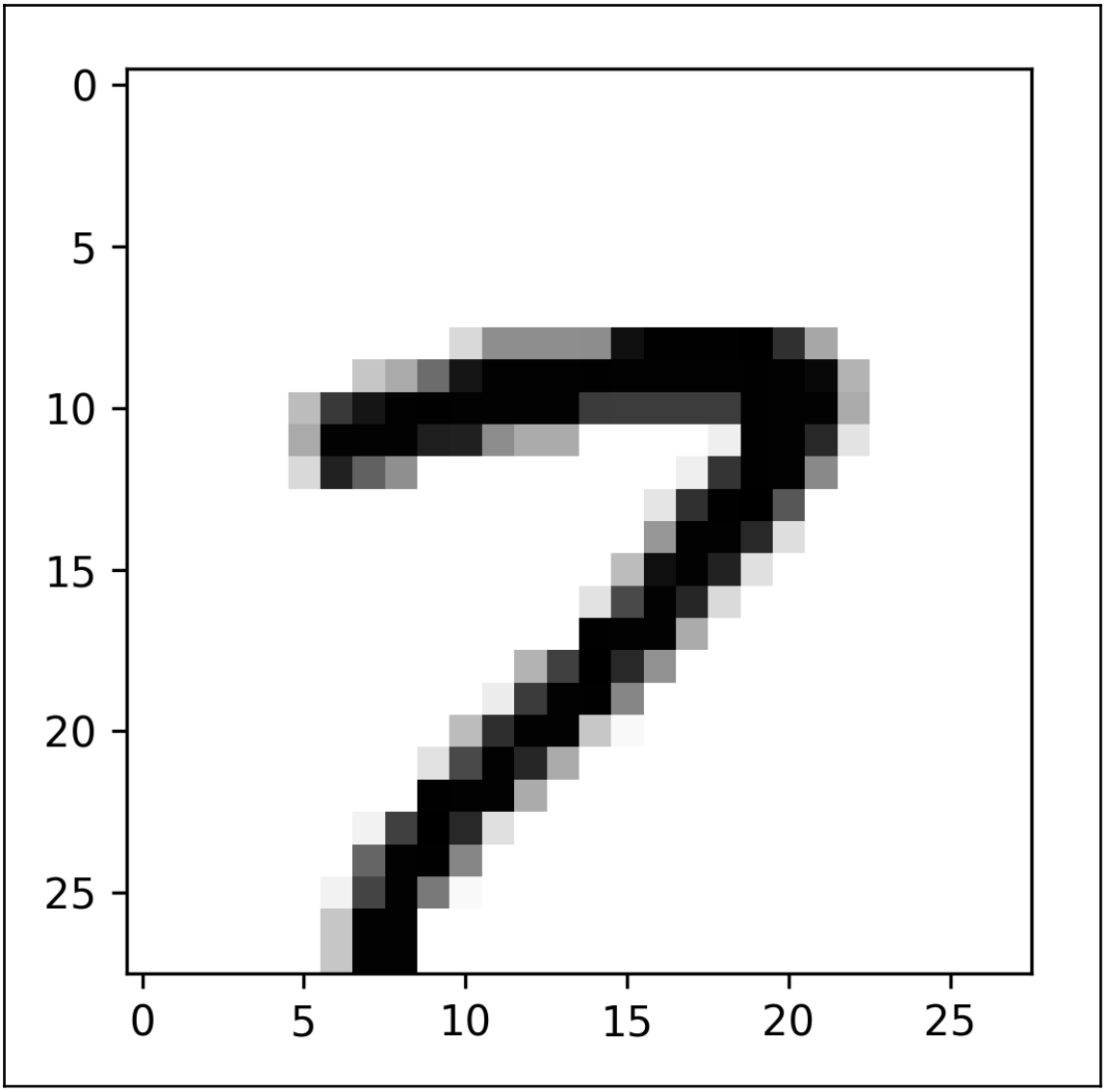
Name	Core	Max Frequency	Base Frequency	Cache	Gen
i7-8809G	4	4.2	3.1	8	8
i7-8709G	4	4.1	3.1	8	8
i7-8706G	4	4.1	3.1	8	8
i7-8705G	4	4.1	3.1	8	8
i7-8700K	6	4.7	3.7	12	8


Name
i7-8809G
i7-8709G
i7-8706G
i7-8705G
i7-8700K
i7-8700
i7-8650U
i7-8550U
i5-8600K
i5-8400
i5-8350U
i5-8305G
i5-8250U
i3-8350K
i3-8130U
i3-8100
i7-7920HQ
i7-7820HQ
i7-7820HK
i7-7820EQ
i7-7700HQ
i7-7700
i7-7700K
i7-7700T
i7-7660U
i7-7600U
i7-7567U
i7-7560U
i7-7500U
i7-7Y75
i5-7600K
i5-7600T
i5-7600
i5-7500
i5-7500T
i5-7442EQ
i5-7440HQ
i5-7440EQ
i5-7400T
i5-7400
i5-7360U
i5-7300U
i5-7300HQ
i5-7287U
i5-7267U
i5-7260U
i5-7200U
i5-7Y54
i5-7Y57
i3-7350K
i3-7320
i3-7300
i3-7300T
i3-7130U
i3-7102E
i3-7101E
i3-7101TE
i3-7100T
i3-7100E
i3-7100
i3-7167U
i3-7100U
i3-7100H
m3-7Y32
m3-7Y30
Core
Max Frequency
Base Frequency
Cache
12
10
8
6
4
2


1.0
0.8
0.6
0.4
0.2
0.0
m3-7Y30
m3-7Y32
i5-7Y57
i3-7100T
i5-7287U
i7-7567U
i3-7100
i3-7320
i7-7660U
i7-7500U
i3-8130U
i7-7560U
i3-7102E
i5-7200U
i3-7167U
i3-7100H
i7-8700
i5-8400
i3-8350K
i3-8100
i5-7600K
i7-8809G
i7-8705G
i7-8706G
i7-7700T
i7-7820HK
i5-7440HQ
i7-7700HQ
i5-7400
i5-7300HQ
i7-8550U
i5-8250U
i5-7400T
Name
Gen
Core
Cache
Max Frequency
Base Frequency


0.9
0.6
0.3
0.0
−0.3
Gen
i7-7Y75
i5-7Y54
i5-8350U
i5-8400
i5-8600K
i7-7700K
i3-8350K
i5-7600K
i5-7500T
i5-7600T
i5-8305G
i7-8700K
i7-8700
i3-8100
i7-8550U
i7-8705G
i7-8706G
i5-7600
i7-7820EQ
i7-7820HQ
i3-7101E
i3-7101TE
i7-7560U
i5-7267U
i7-7600U
i5-7360U
i5-7260U
i3-7100E
i3-7300T
i5-7287U
i5-7300U
i3-7100H
i3-7320
Name
Name

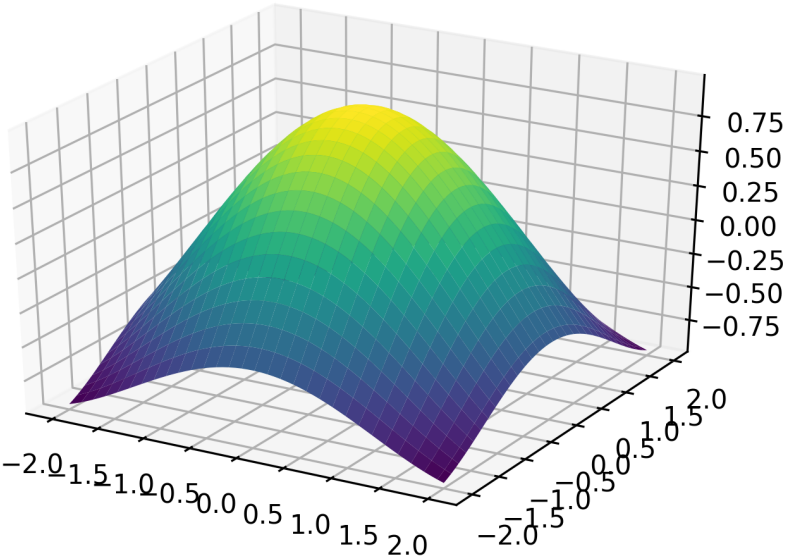

0
500
1000
1500
2000
2500
0
500
1000
1500
2000
2500

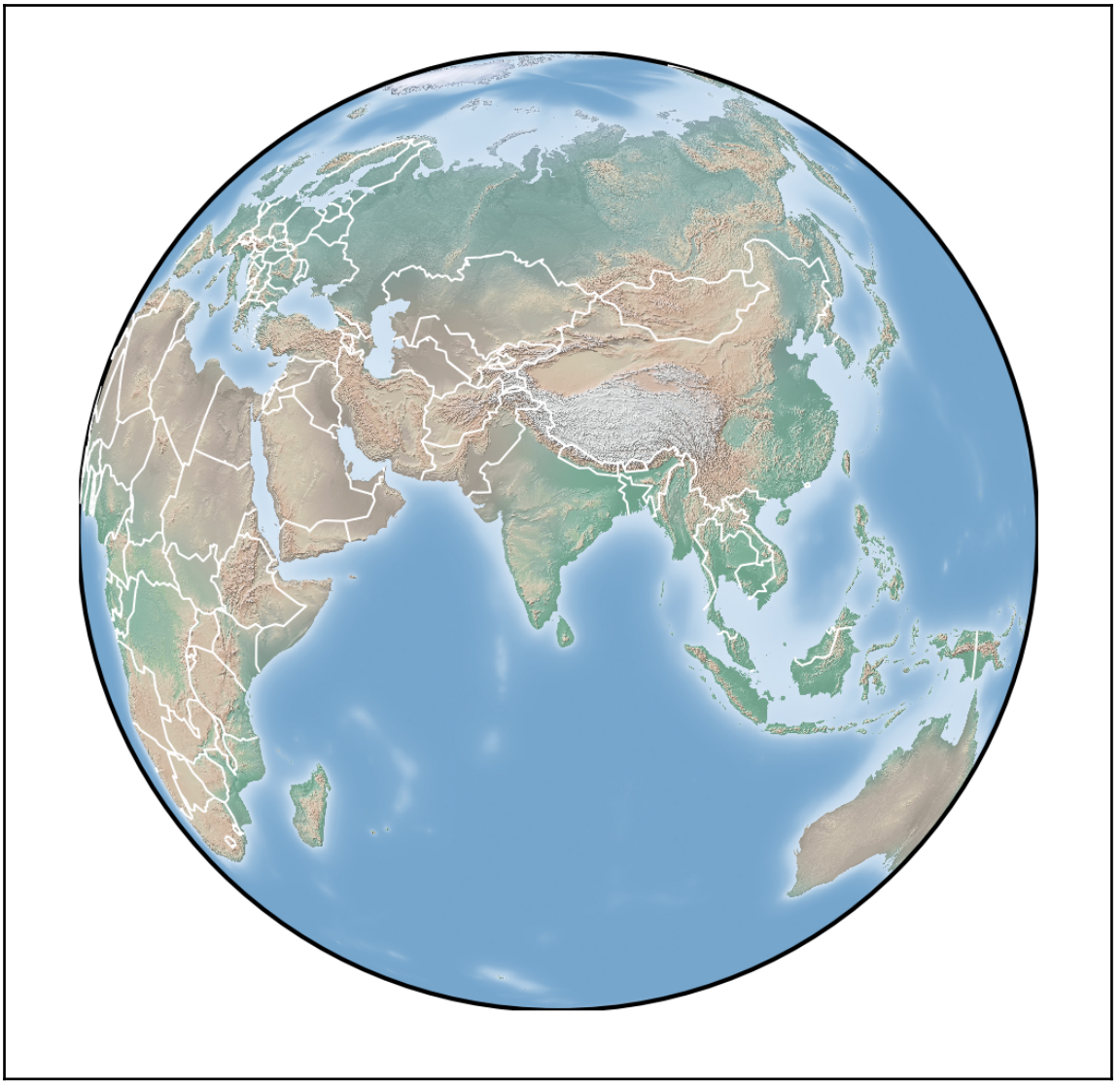

0
5
10
15
20
25
0
5
10
15
20
25

```
(679183, 13)
```

Out[18]:

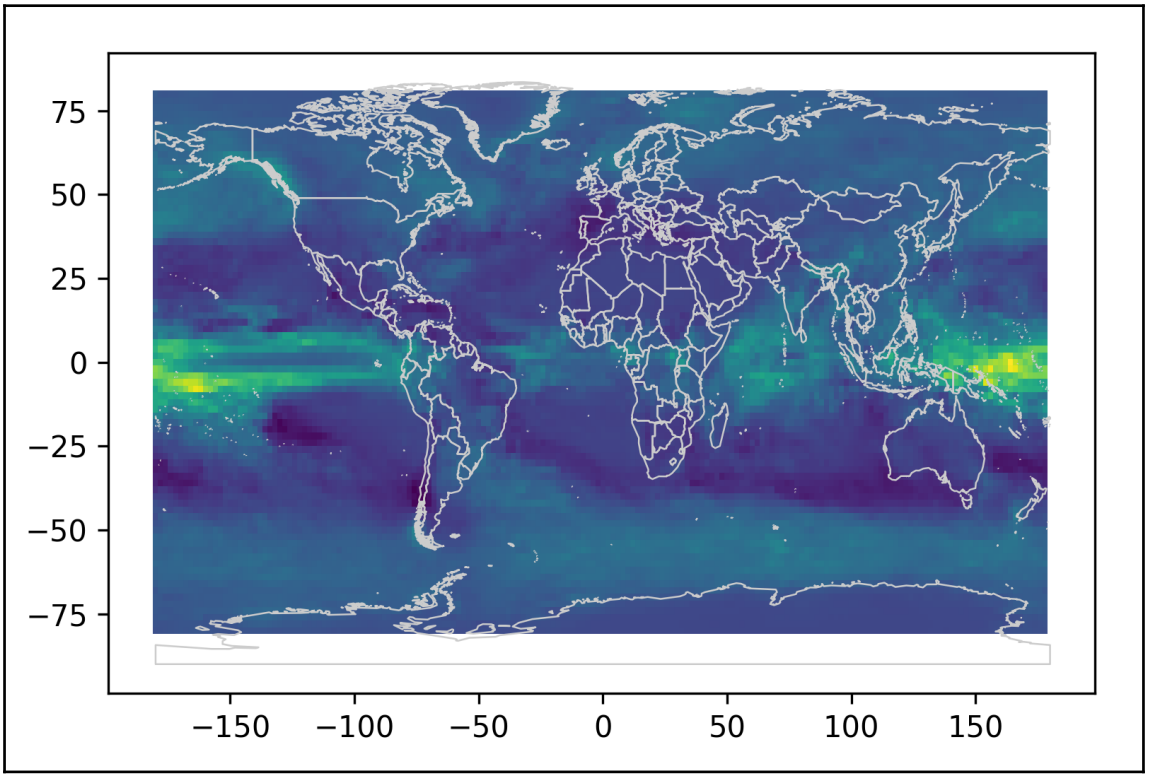
	slug	symbol	name	date	ranknow	open	high	low	close	volume	market	close_ratio	spread
0	bitcoin	BTC	Bitcoin	2013-04-28	1	135.30	135.98	132.10	134.21	0	1500520000	0.5438	3.88
1	bitcoin	BTC	Bitcoin	2013-04-29	1	134.44	147.49	134.00	144.54	0	1491160000	0.7813	13.49
2	bitcoin	BTC	Bitcoin	2013-04-30	1	144.00	146.93	134.05	139.00	0	1597780000	0.3843	12.88
3	bitcoin	BTC	Bitcoin	2013-05-01	1	139.00	139.89	107.72	116.99	0	1542820000	0.2882	32.17
4	bitcoin	BTC	Bitcoin	2013-05-02	1	116.38	125.60	92.28	105.21	0	1292190000	0.3881	33.32


0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−2.0
−1.5
−1.0
−0.5
0.0
0.5
1.0
1.5
2.0
2.0
1.5
1.0
0.5
0.0
−0.5
−1.0
−1.5
−2.0

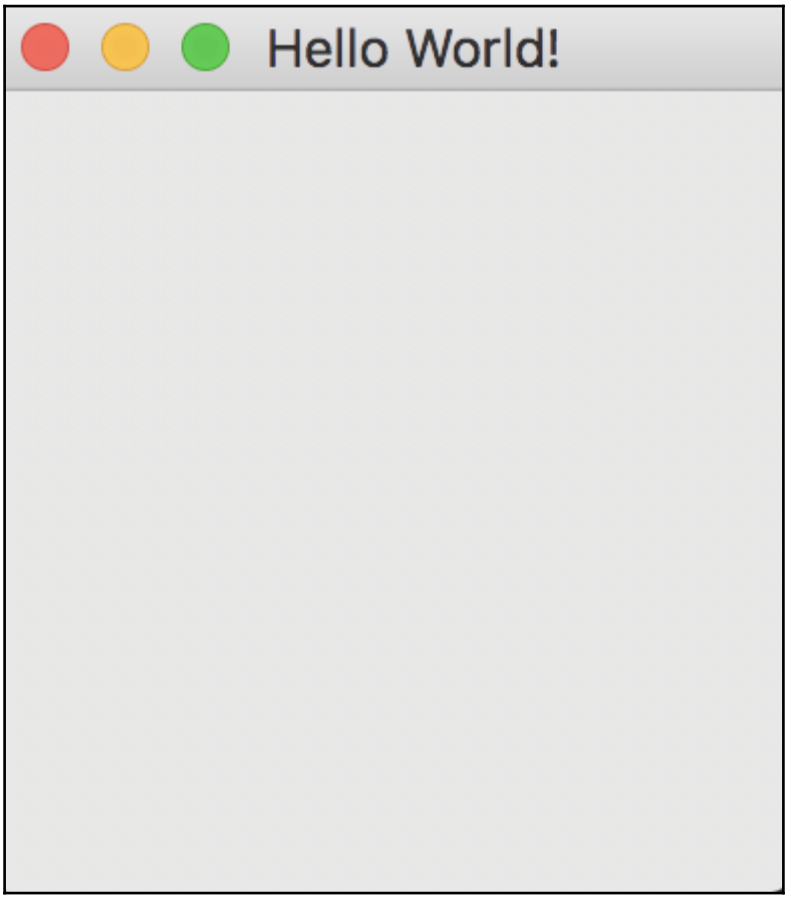


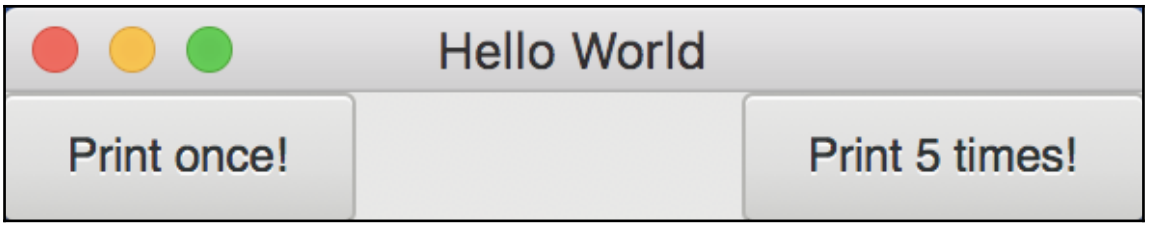
	ANNUAL	FID	ANN90	ANN10	UNCERTAIN	UCP	geometry
0	27.169403	0_0	43.493927	-9.617419	53.11	1.95	POLYGON ((-181 -81, -181 -79, -179 -79, -179 -...
1	29.888596	1_0	46.822582	-10.193469	57.02	1.91	POLYGON ((-179 -81, -179 -79, -177 -79, -177 -...
2	32.919357	2_0	51.010445	-10.960211	61.97	1.88	POLYGON ((-177 -81, -177 -79, -175 -79, -175 -...
3	36.056152	3_0	52.492485	-11.570847	64.06	1.78	POLYGON ((-175 -81, -175 -79, -173 -79, -173 -...
4	38.931015	4_0	52.384979	-12.343842	64.73	1.66	POLYGON ((-173 -81, -173 -79, -171 -79, -171 -...

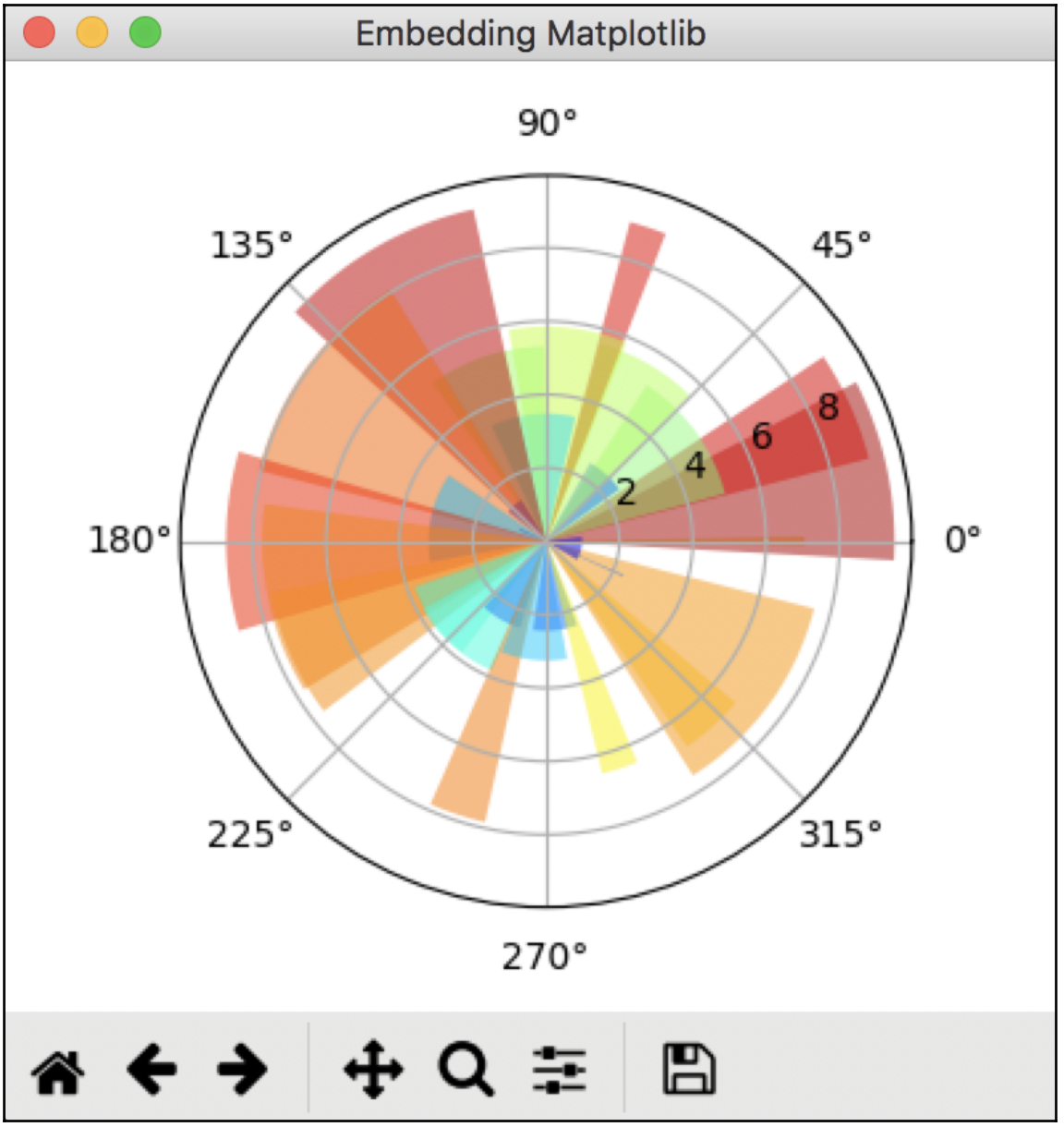
	FIPS	ISO2	ISO3	UN	NAME	AREA	POP2005	REGION	SUBREGION	LON	LAT	geometry
0	AC	AG	ATG	28	Antigua and Barbuda	44	83039	19	29	-61.783	17.078	(POLYGON ((-61.68666800000003 17.0244410000001...
1	AG	DZ	DZA	12	Algeria	238174	32854159	2	15	2.632	28.163	POLYGON ((2.963610000000017 36.802216, 4.78583...
2	AJ	AZ	AZE	31	Azerbaijan	8260	8352021	142	145	47.395	40.430	(POLYGON ((45.08332252502441 39.76804542541504...
3	AL	AL	ALB	8	Albania	2740	3153731	150	39	20.068	41.143	POLYGON ((19.43621399999998 41.02106500000001,...
4	AM	AM	ARM	51	Armenia	2820	3017661	142	145	44.563	40.534	POLYGON ((45.15387153625488 41.1986026763916, ...

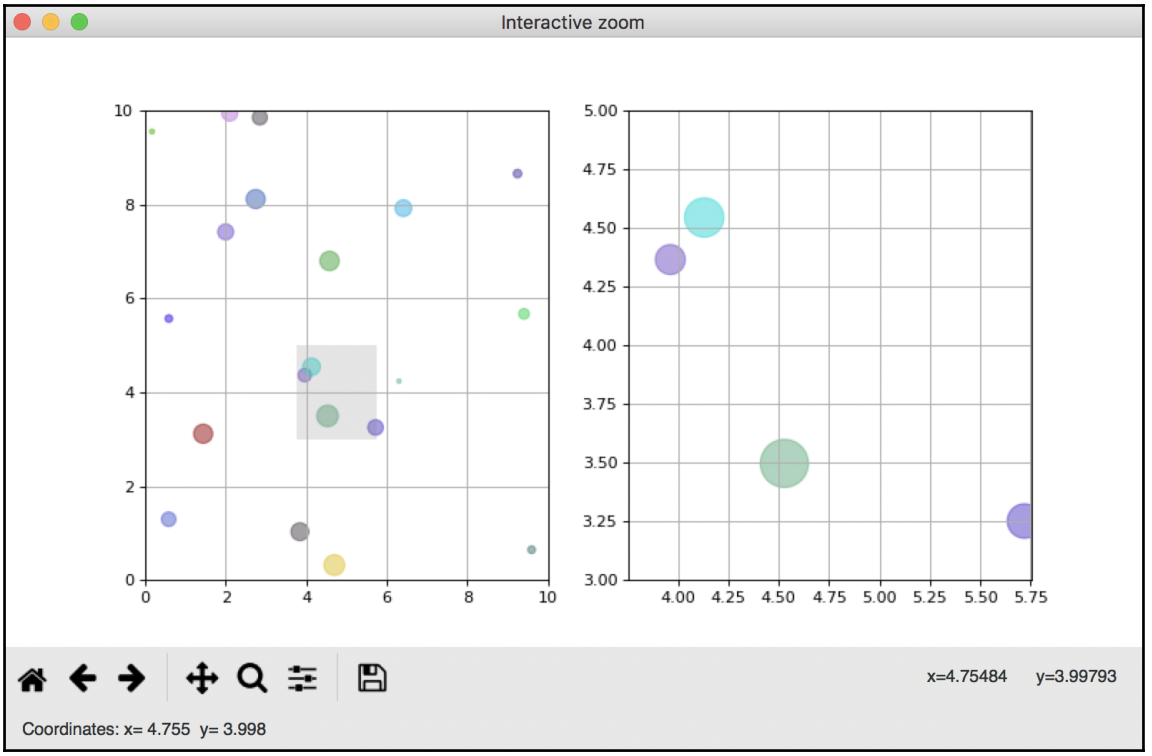


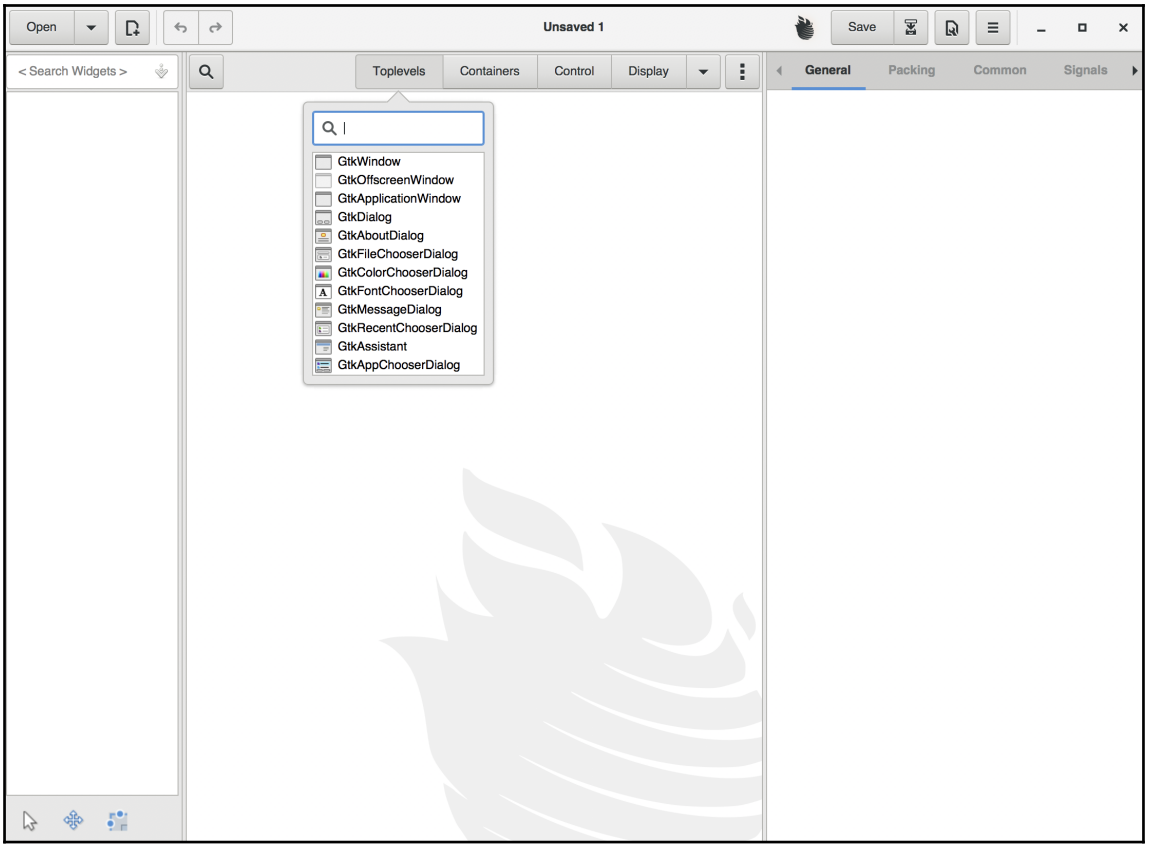
Chapter 5: Embedding Matplotlib in GTK+3

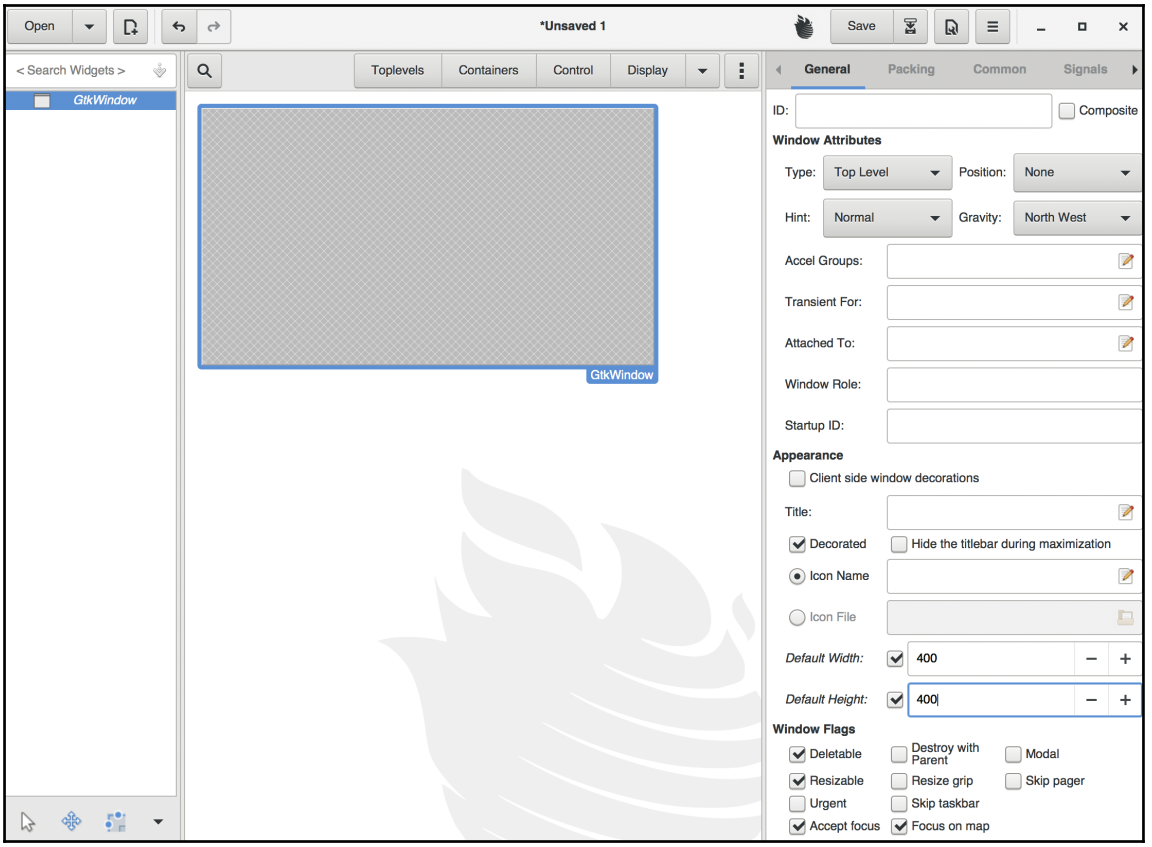


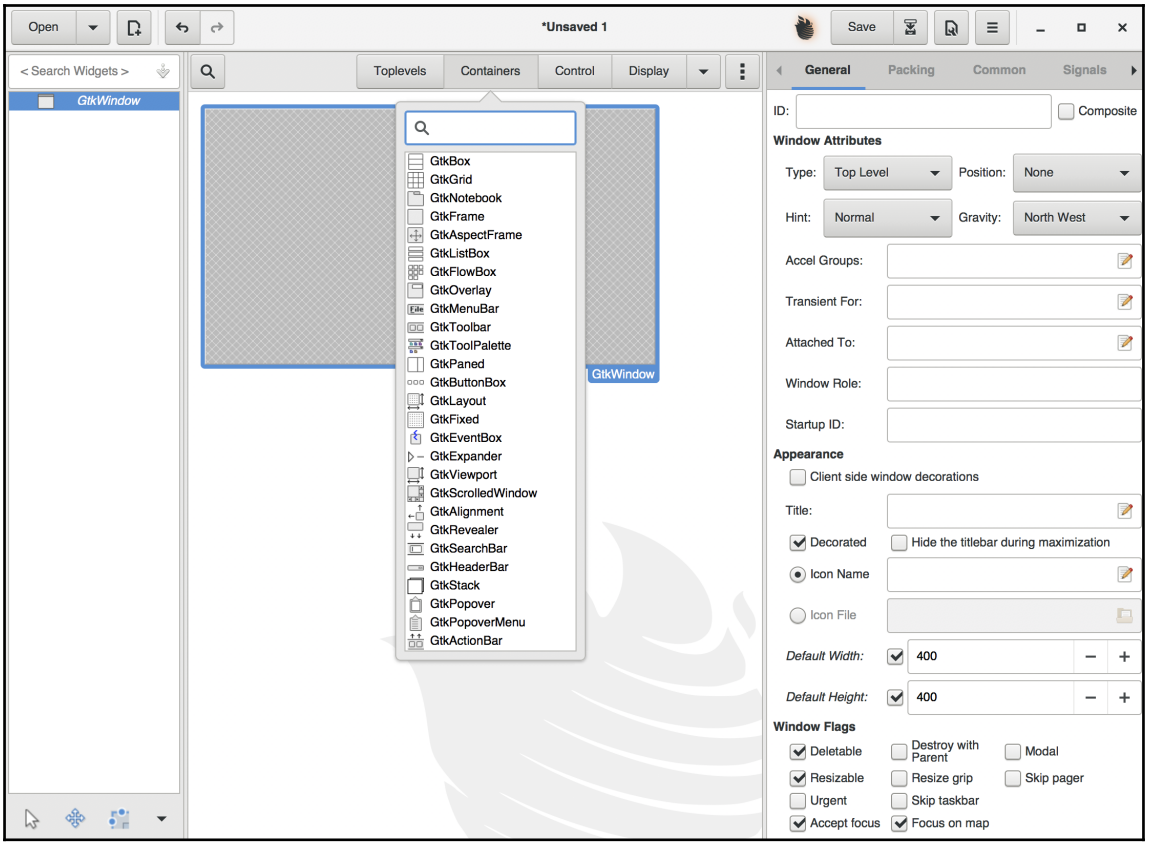


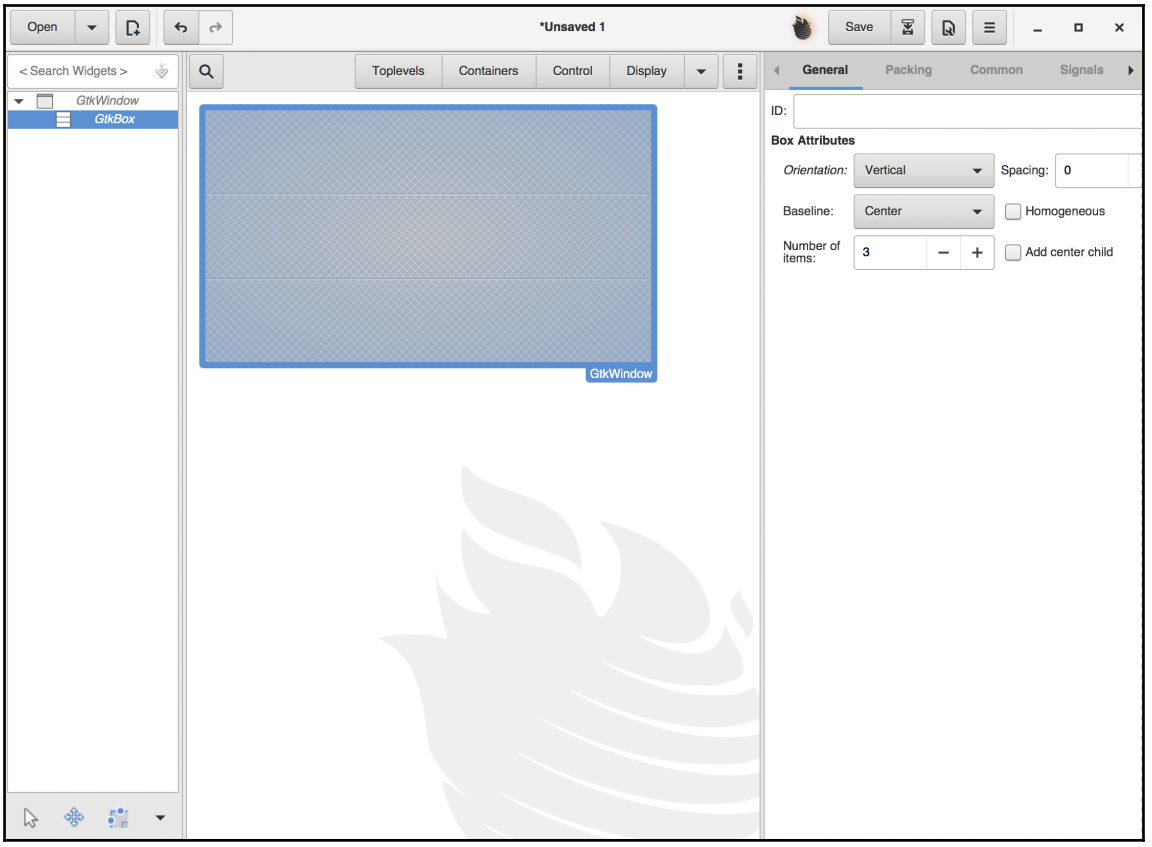

Embedding Matplotlib
90°
45°
0°
315°
270°
225°
180°
135°
2
4
6
8

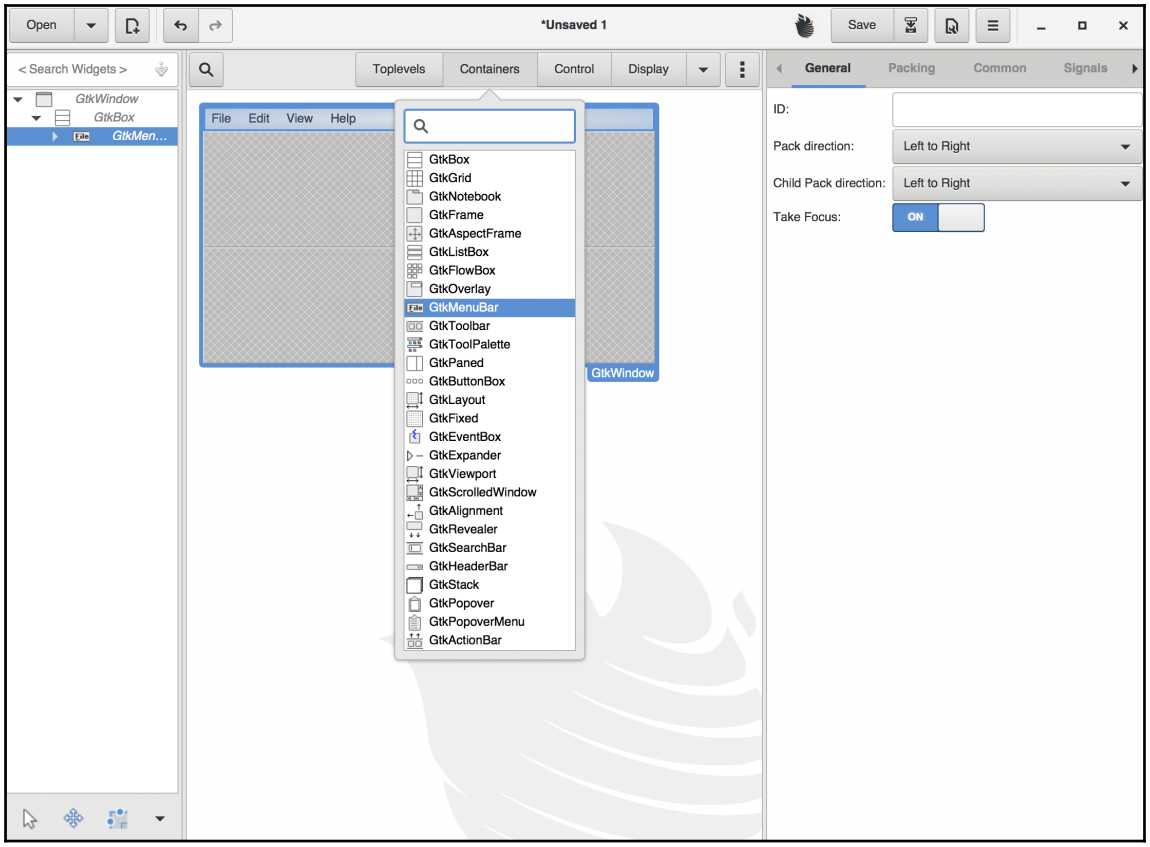

Interactive zoom
10
8
6
4
2
0
0
2
4
6
8
10
5.00
4.75
4.50
4.25
4.00
3.75
3.50
3.25
3.00
4.00
4.25
4.50
4.75
5.00
5.25
5.50
5.75
x=4.75484
y=3.99793
Coordinates: x= 4.755 y= 3.998

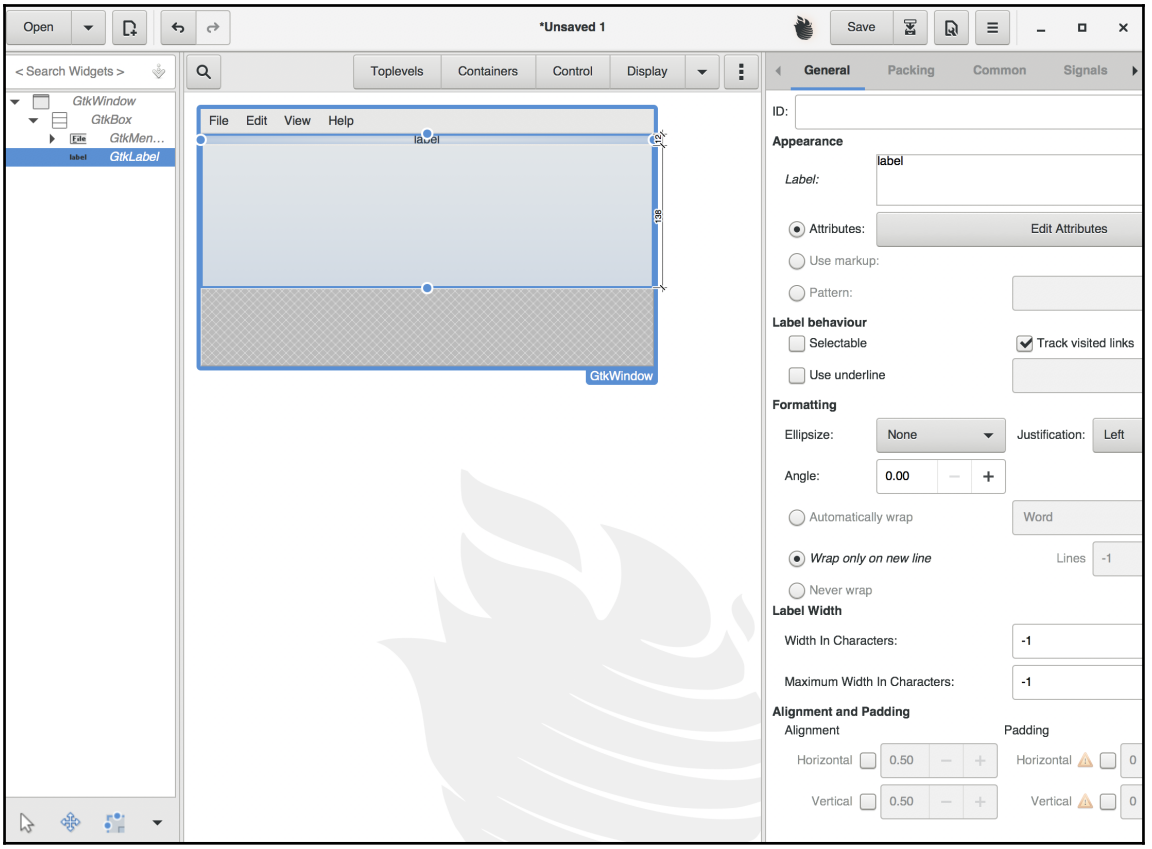

Open
Unsaved 1
Save
< Search Widgets >
Toplevels
Containers
Control
Display
General
Packing
Common
Signals
GtkWindow
GtkOffscreenWindow
GtkApplicationWindow
GtkDialog
GtkAboutDialog
GtkFileChooserDialog
GtkColorChooserDialog
GtkFontChooserDialog
GtkMessageDialog
GtkRecentChooserDialog
GtkAssistant
GtkAppChooserDialog

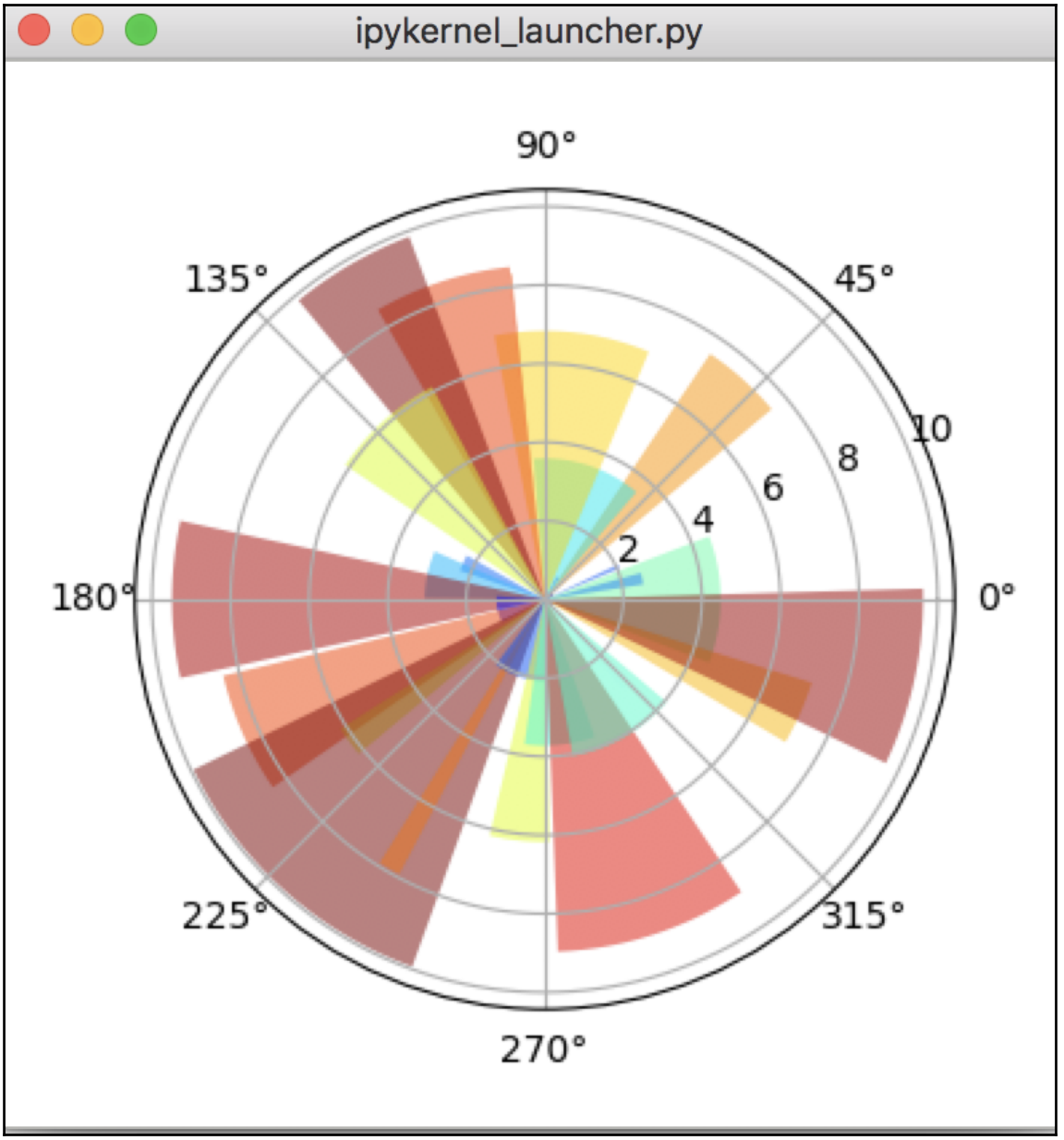

Open
*Unsaved 1
Save
< Search Widgets >
GtkWindow
Toplevels
Containers
Control
Display
GtkWindow
General
Packing
Common
Signals
ID:
Composite
Window Attributes
Type:
Top Level
Position:
None
Hint:
Normal
Gravity:
North West
Accel Groups:
Transient For:
Attached To:
Window Role:
Startup ID:
Appearance
Client side window decorations
Title:
Decorated
Hide the titlebar during maximization
Icon Name
Icon File
Default Width:
400
Default Height:
400
Window Flags
Deletable
Destroy with Parent
Modal
Resizable
Resize grip
Skip pager
Urgent
Skip taskbar
Accept focus
Focus on map


Open
*Unsaved 1
Save
< Search Widgets >
GtkWindow
Toplevels
Containers
Control
Display
GtkBox
GtkGrid
GtkNotebook
GtkFrame
GtkAspectFrame
GtkListBox
GtkFlowBox
GtkOverlay
GtkMenuBar
GtkToolbar
GtkToolPalette
GtkPaned
GtkButtonBox
GtkLayout
GtkFixed
GtkEventBox
GtkExpander
GtkViewport
GtkScrolledWindow
GtkAlignment
GtkRevealer
GtkSearchBar
GtkHeaderBar
GtkStack
GtkPopover
GtkPopoverMenu
GtkActionBar
GtkWindow
General
Packing
Common
Signals
ID:
Composite
Window Attributes
Type:
Top Level
Position:
None
Hint:
Normal
Gravity:
North West
Accel Groups:
Transient For:
Attached To:
Window Role:
Startup ID:
Appearance
Client side window decorations
Title:
Decorated
Hide the titlebar during maximization
Icon Name
Icon File
Default Width:
400
Default Height:
400
Window Flags
Deletable
Destroy with Parent
Modal
Resizable
Resize grip
Skip pager
Urgent
Skip taskbar
Accept focus
Focus on map

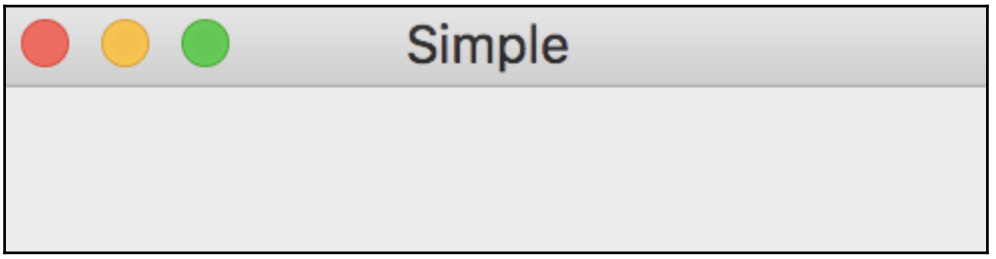

Open
*Unsaved 1
Save
< Search Widgets >
Toplevels
Containers
Control
Display
General
Packing
Common
Signals
GtkWindow
GtkBox
ID:
Box Attributes
Orientation:
Vertical
Spacing:
0
Baseline:
Center
Homogeneous
Number of items:
3
Add center child
GtkWindow

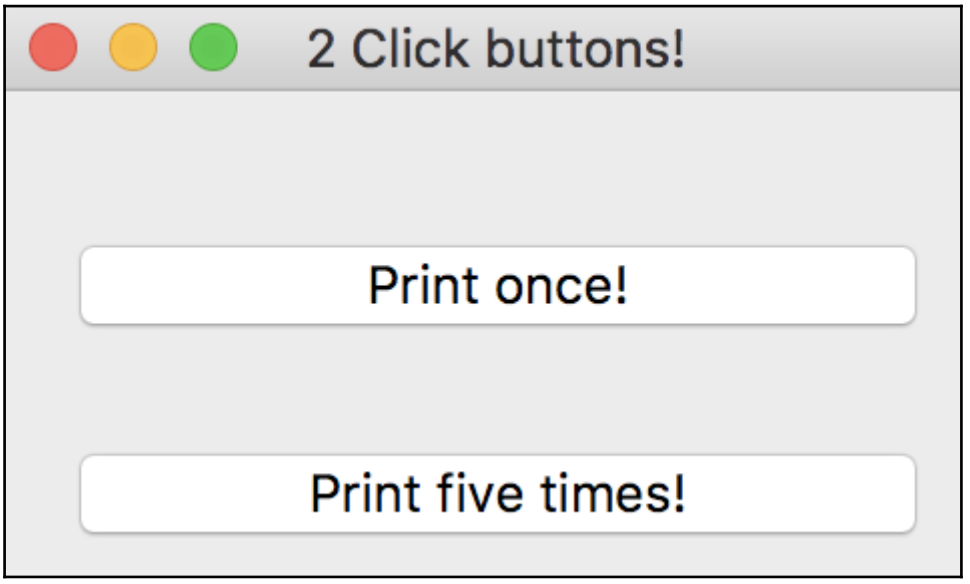

Open
*Unsaved 1
Save
< Search Widgets >
GtkWindow
GtkBox
GtkMen...
Toplevels
Containers
Control
Display
File
Edit
View
Help
GtkBox
GtkGrid
GtkNotebook
GtkFrame
GtkAspectFrame
GtkListBox
GtkFlowBox
GtkOverlay
GtkMenuBar
GtkToolbar
GtkToolPalette
GtkPaned
GtkButtonBox
GtkLayout
GtkFixed
GtkEventBox
GtkExpander
GtkViewport
GtkScrolledWindow
GtkAlignment
GtkRevealer
GtkSearchBar
GtkHeaderBar
GtkStack
GtkPopover
GtkPopoverMenu
GtkActionBar
GtkWindow
General
Packing
Common
Signals
ID:
Pack direction:
Left to Right
Child Pack direction:
Left to Right
Take Focus:
ON

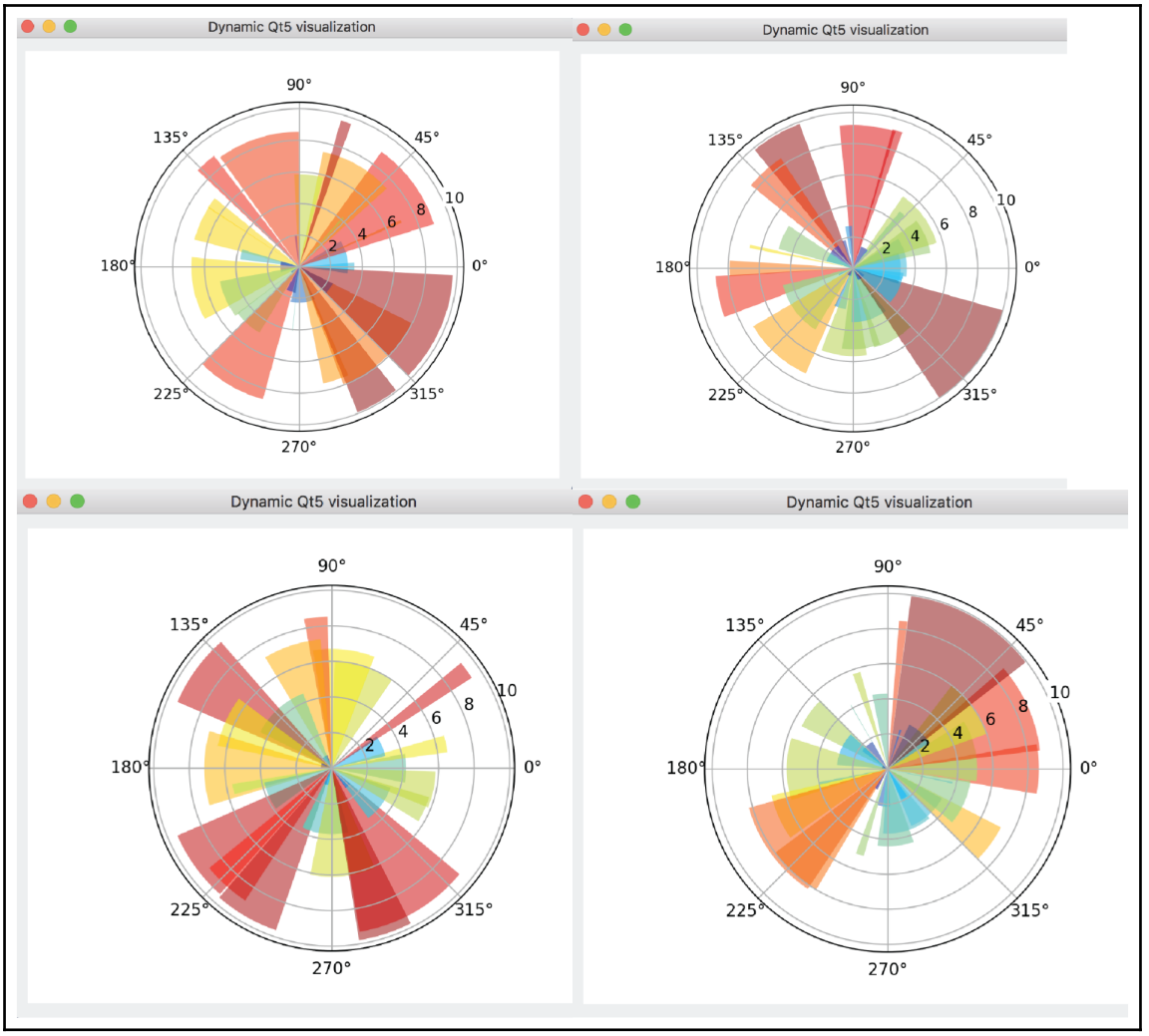

Open
*Unsaved 1
Save
< Search Widgets >
Toplevels
Containers
Control
Display
General
Packing
Common
Signals
GtkWindow
GtkBox
GtkMen…
GtkLabel
File
Edit
View
Help
label
GtkWindow
ID:
Appearance
Label:
label
Attributes:
Edit Attributes
Use markup:
Pattern:
Label behaviour
Selectable
Track visited links
Use underline
Formatting
Ellipsize:
None
Justification:
Left
Angle:
0.00
Automatically wrap
Word
Wrap only on new line
Lines
-1
Never wrap
Label Width
Width In Characters:
-1
Maximum Width In Characters:
-1
Alignment and Padding
Alignment
Padding
Horizontal
0.50
Vertical
0.50
Horizontal
Vertical

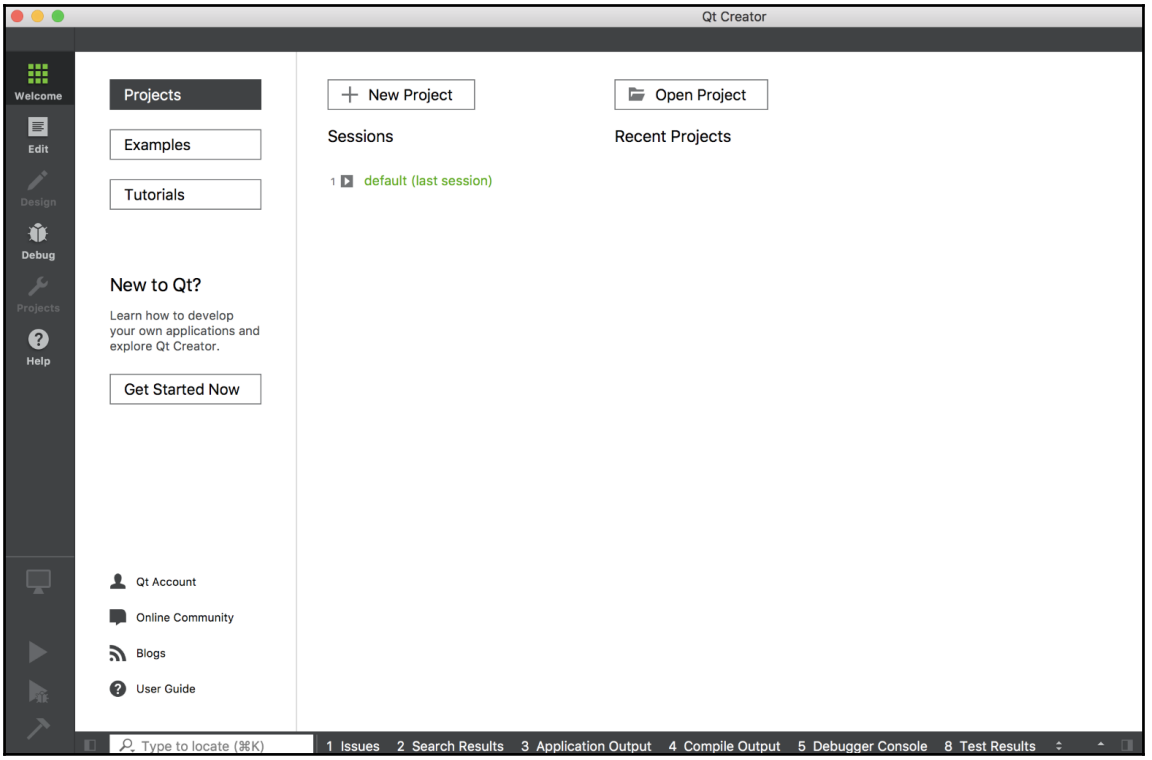

ipykernel_launcher.py
90°
45°
135°
180°
0°
225°
315°
270°
2
4
6
8
10

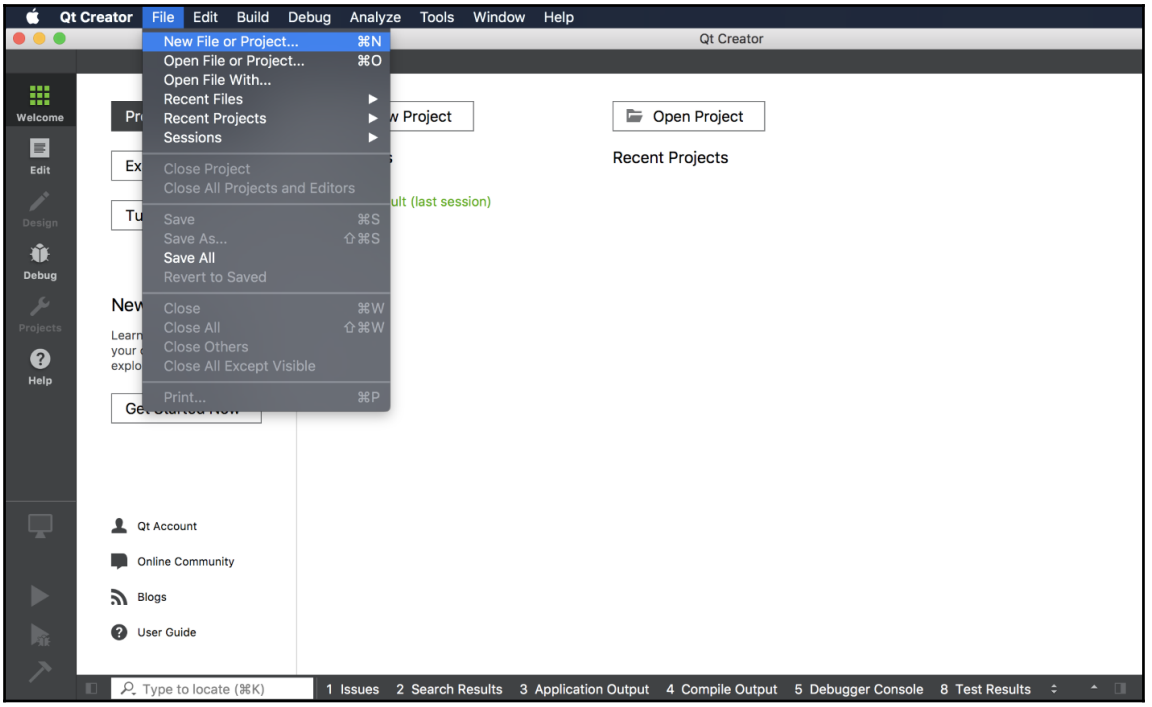
Chapter 6: Embedding Matplotlib in Qt 5






Dynamic Qt5 visualization
90°
45°
135°
180°
0°
225°
315°
270°
2
4
6
8
10
Dynamic Qt5 visualization
90°
45°
135°
180°
0°
225°
315°
270°
2
4
6
8
10
Dynamic Qt5 visualization
90°
45°
135°
180°
0°
225°
315°
270°
2
4
6
8
10
Dynamic Qt5 visualization
90°
45°
135°
180°
0°
225°
315°
270°
2
4
6
8
10


Qt Creator
Welcome
Edit
Design
Debug
Projects
Help
Projects
Examples
Tutorials
New to Qt?
Learn how to develop your own applications and explore Qt Creator.
Get Started Now
Qt Account
Online Community
Blogs
User Guide
New Project
Open Project
Sessions
Recent Projects
1 default (last session)
Type to locate (⌘K)
1 Issues
2 Search Results
3 Application Output
4 Compile Output
5 Debugger Console
8 Test Results


Qt Creator
File
Edit
Build
Debug
Analyze
Tools
Window
Help
Qt Creator
New File or Project... ⌘N
Open File or Project... ⌘O
Open File With...
Recent Files
Recent Projects
Sessions
Close Project
Close All Projects and Editors
Save ⌘S
Save As... ⇧⌘S
Save All
Revert to Saved
Close ⌘W
Close All ⇧⌘W
Close Others
Close All Except Visible
Print... ⌘P
Welcome
Edit
Design
Debug
Projects
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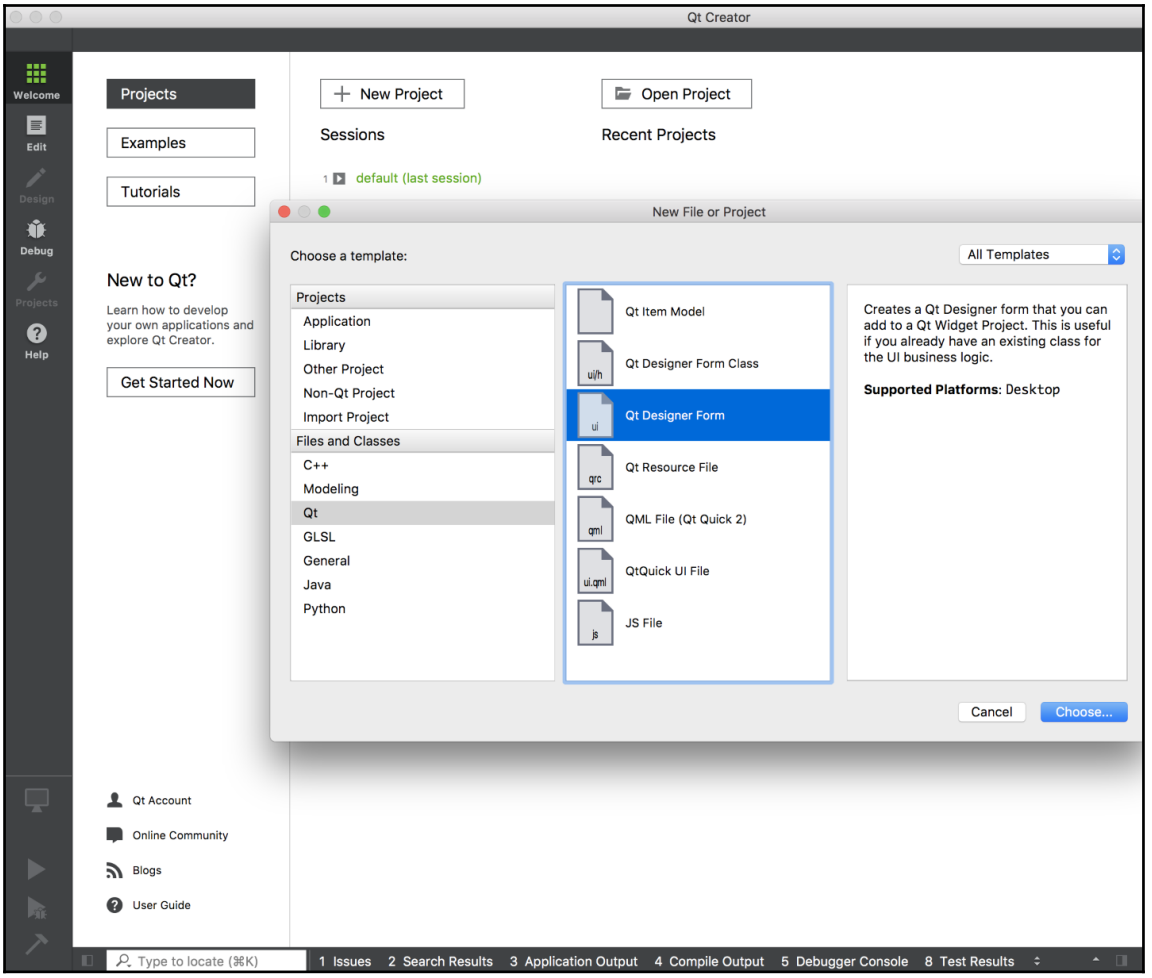
Recent Projects
Qt Account
Online Community
Blogs
User Guide
Type to locate (⌘K)
1 Issues
2 Search Results
3 Application Output
4 Compile Output
5 Debugger Console
8 Test Results


Qt Creator
Welcome
Edit
Design
Debug
Projects
Help
Projects
Examples
Tutorials
New Project
Open Project
Sessions
Recent Projects
1 default (last session)
New to Qt?
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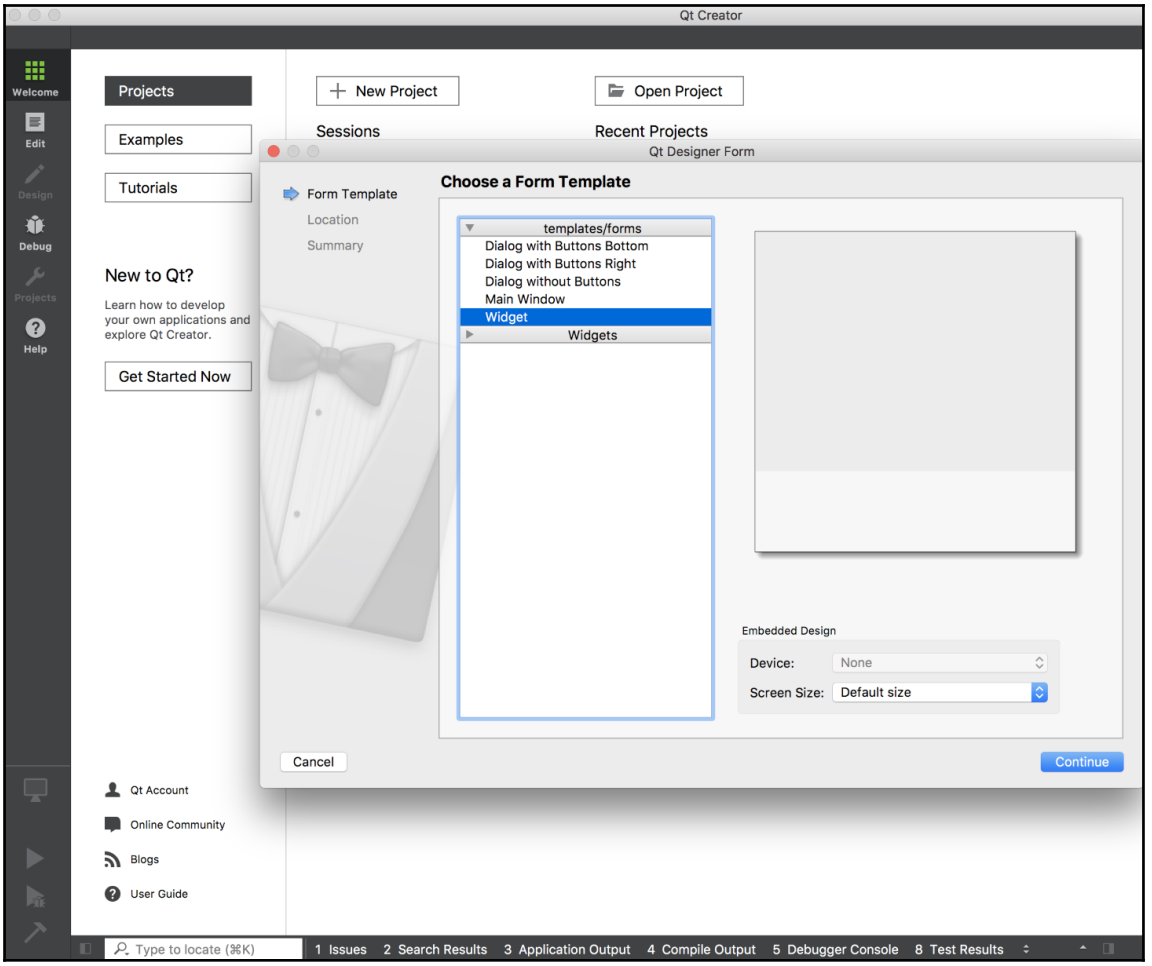
User Guide
New File or Project
Choose a template:
All Templates
Projects
Application
Library
Other Project
Non-Qt Project
Import Project
Files and Classes
C++
Modeling
Qt
GLSL
General
Java
Python
Qt Item Model
Qt Designer Form Class
Qt Designer Form
Qt Resource File
QML File (Qt Quick 2)
QtQuick UI File
JS File
Creates a Qt Designer form that you can add to a Qt Widget Project. This is useful if you already have an existing class for the UI business logic.
Supported Platforms: Desktop
Cancel
Choose...
Type to locate (⌘K)
1 Issues
2 Search Results
3 Application Output
4 Compile Output
5 Debugger Console
8 Test Results


Qt Creator
Welcome
Edit
Design
Debug
Projects
Help
Projects
Examples
Tutorials
New Project
Open Project
Sessions
Recent Projects
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Learn how to develop your own applications and explore Qt Creator.
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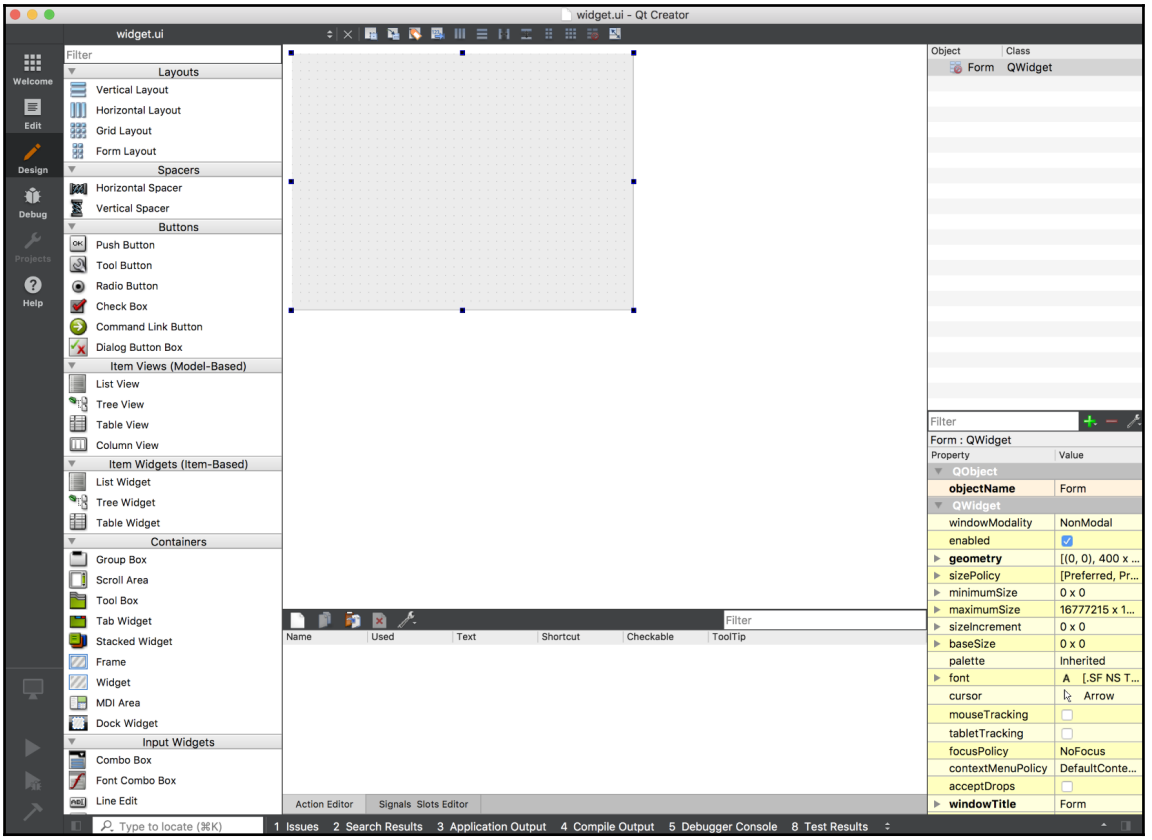
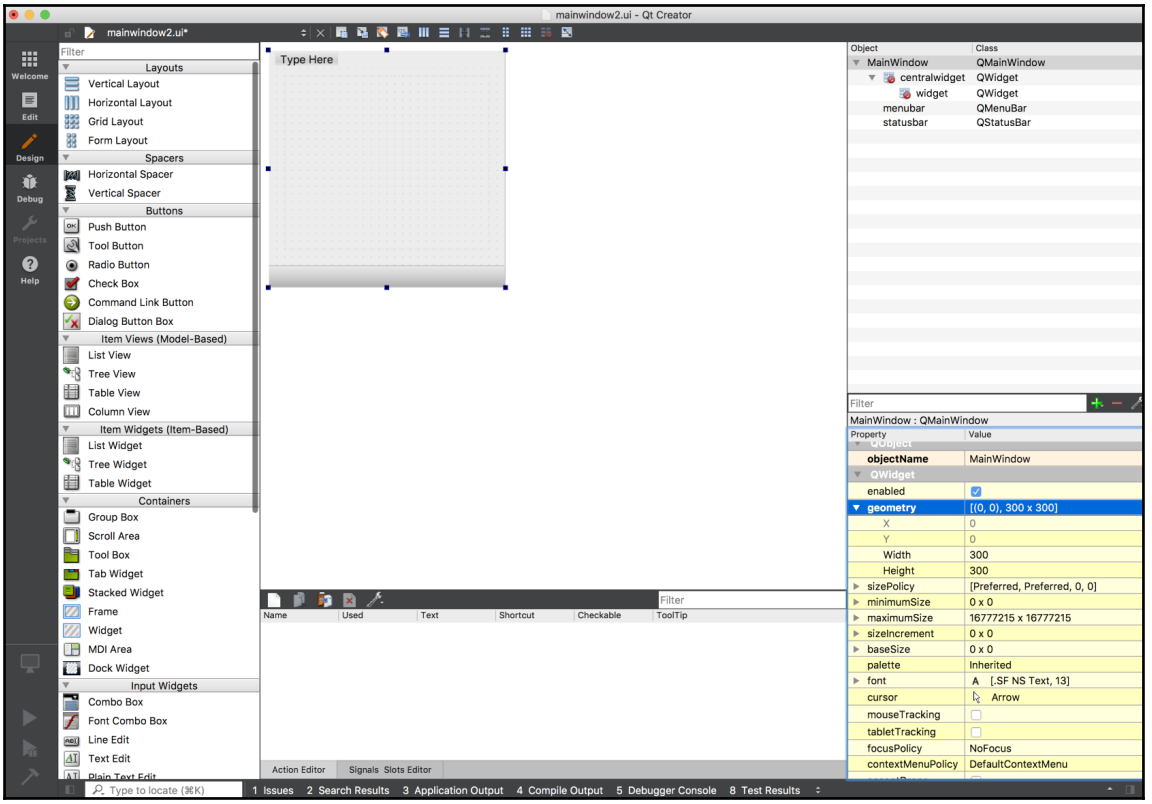
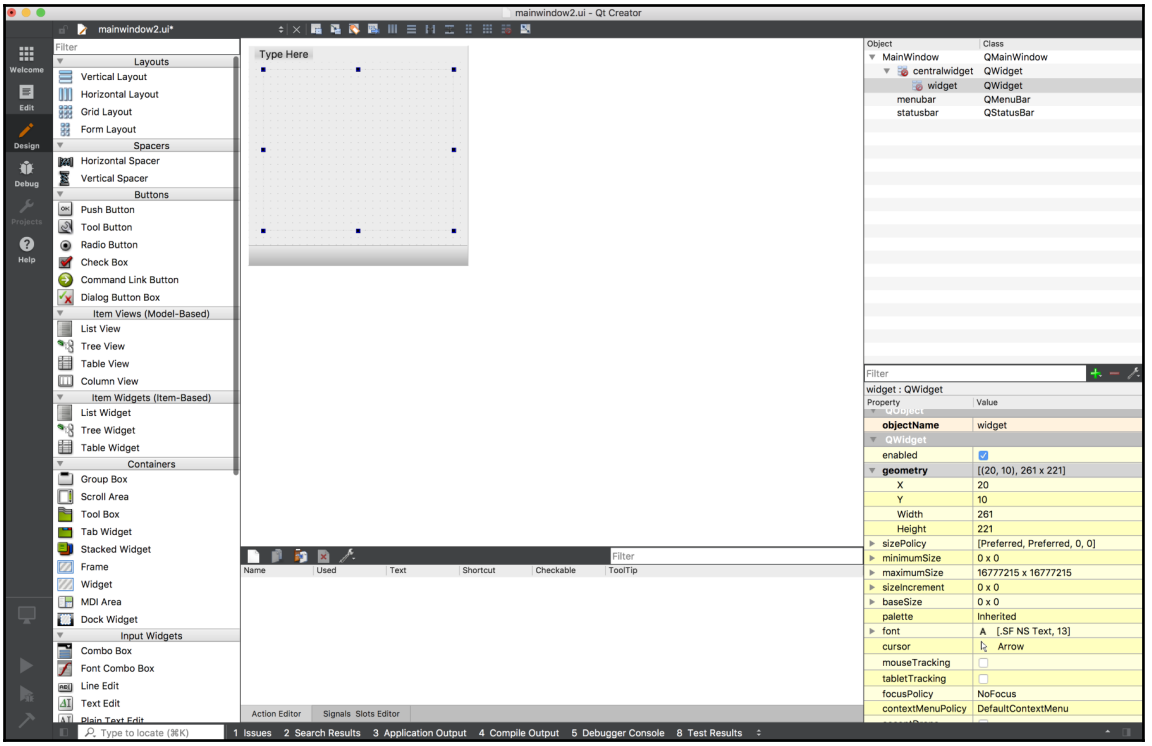
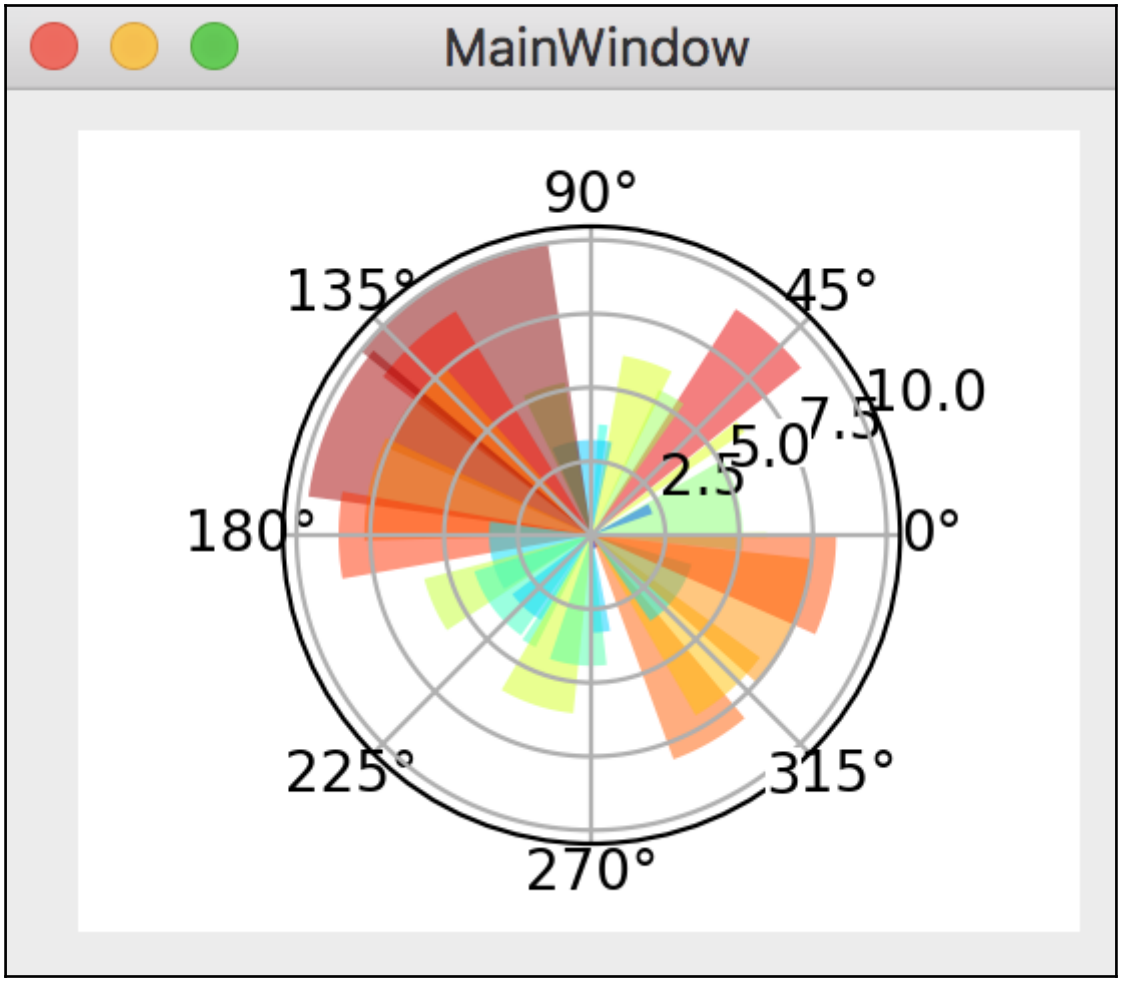
User Guide
Qt Designer Form
Form Template
Location
Summary
Choose a Form Template
templates/forms
Dialog with Buttons Bottom
Dialog with Buttons Right
Dialog without Buttons
Main Window
Widget
Widgets
Embedded Design
Device:
None
Screen Size:
Default size
Cancel
Continue
Type to locate (⌘K)
1 Issues
2 Search Results
3 Application Output
4 Compile Output
5 Debugger Console
8 Test Results

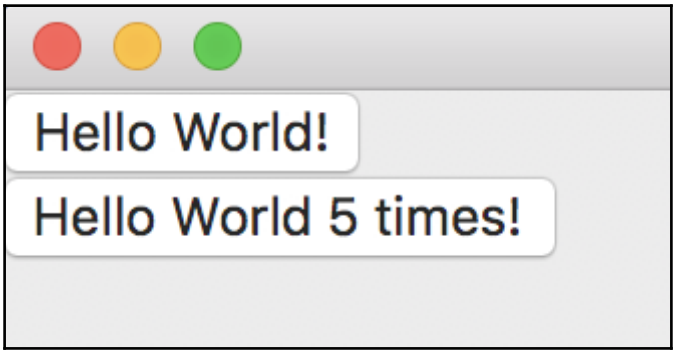

widget.ui - Qt Creator
widget.ui
Welcome
Edit
Design
Debug
Projects
Help
Filter
Layouts
Vertical Layout
Horizontal Layout
Grid Layout
Form Layout
Spacers
Horizontal Spacer
Vertical Spacer
Buttons
Push Button
Tool Button
Radio Button
Check Box
Command Link Button
Dialog Button Box
Item Views (Model-Based)
List View
Tree View
Table View
Column View
Item Widgets (Item-Based)
List Widget
Tree Widget
Table Widget
Containers
Group Box
Scroll Area
Tool Box
Tab Widget
Stacked Widget
Frame
Widget
MDI Area
Dock Widget
Input Widgets
Combo Box
Font Combo Box
Line Edit
Object
Class
Form
QWidget
Form : QWidget
Property
Value
QObject
objectName
Form
QWidget
windowModality
NonModal
enabled
geometry
sizePolicy
minimumSize
0 x 0
maximumSize
sizeIncrement
0 x 0
baseSize
0 x 0
palette
Inherited
font
cursor
Arrow
mouseTracking
tabletTracking
focusPolicy
NoFocus
contextMenuPolicy
acceptDrops
windowTitle
Form
Name
Used
Text
Shortcut
Checkable
ToolTip
Action Editor
Signals Slots Editor
Type to locate (⌘K)
1 Issues
2 Search Results
3 Application Output
4 Compile Output
5 Debugger Console
8 Test Results

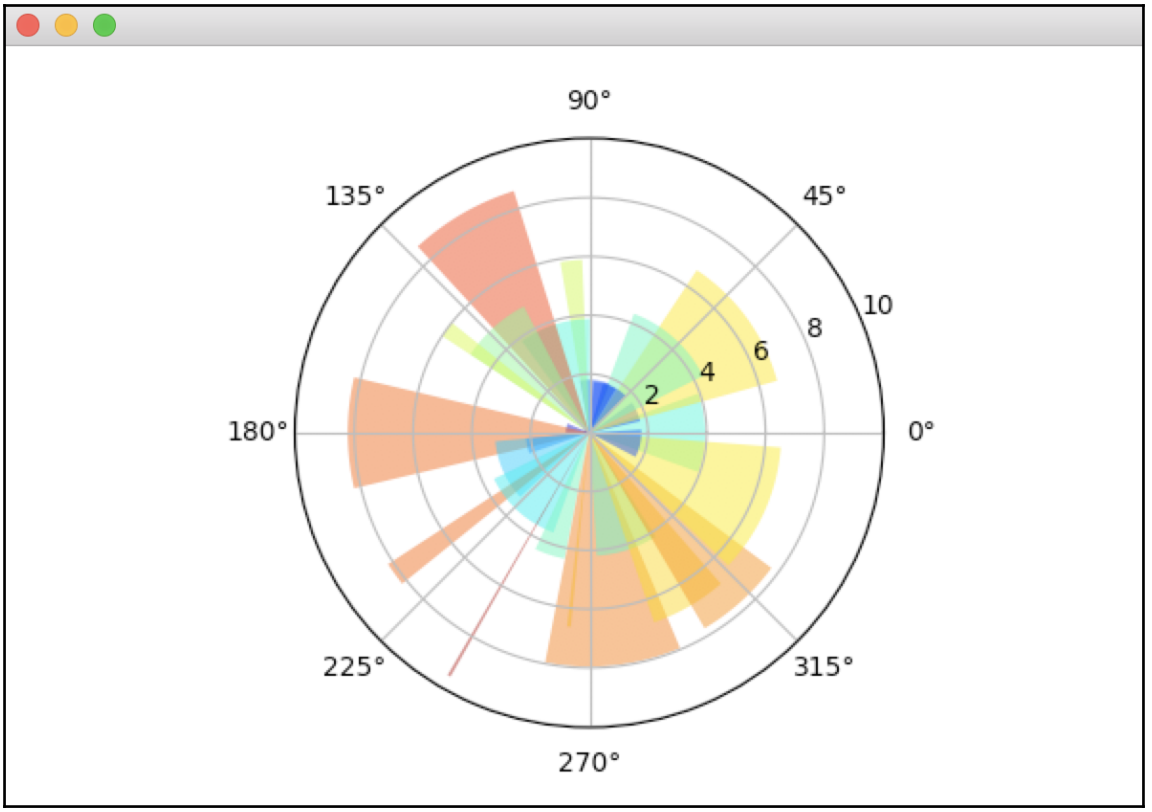

mainwindow2.ui - Qt Creator
mainwindow2.ui*
Welcome
Edit
Design
Debug
Projects
Help
Filter
Layouts
Vertical Layout
Horizontal Layout
Grid Layout
Form Layout
Spacers
Horizontal Spacer
Vertical Spacer
Buttons
Push Button
Tool Button
Radio Button
Check Box
Command Link Button
Dialog Button Box
Item Views (Model-Based)
List View
Tree View
Table View
Column View
Item Widgets (Item-Based)
List Widget
Tree Widget
Table Widget
Containers
Group Box
Scroll Area
Tool Box
Tab Widget
Stacked Widget
Frame
Widget
MDI Area
Dock Widget
Input Widgets
Combo Box
Font Combo Box
Line Edit
Text Edit
Type Here
Object
Class
MainWindow
QMainWindow
centralwidget
QWidget
widget
QWidget
menubar
QMenuBar
statusbar
QStatusBar
MainWindow : QMainWindow
Property
Value
objectName
MainWindow
QWidget
enabled
geometry
[(0, 0), 300 x 300]
X
0
Y
0
Width
300
Height
300
sizePolicy
[Preferred, Preferred, 0, 0]
minimumSize
0 x 0
maximumSize
16777215 x 16777215
sizeIncrement
0 x 0
baseSize
0 x 0
palette
Inherited
font
[.SF NS Text, 13]
cursor
Arrow
mouseTracking
tabletTracking
focusPolicy
NoFocus
contextMenuPolicy
DefaultContextMenu
Name
Used
Text
Shortcut
Checkable
ToolTip
Action Editor
Signals Slots Editor
Type to locate (⌘K)
1 Issues
2 Search Results
3 Application Output
4 Compile Output
5 Debugger Console
8 Test Results

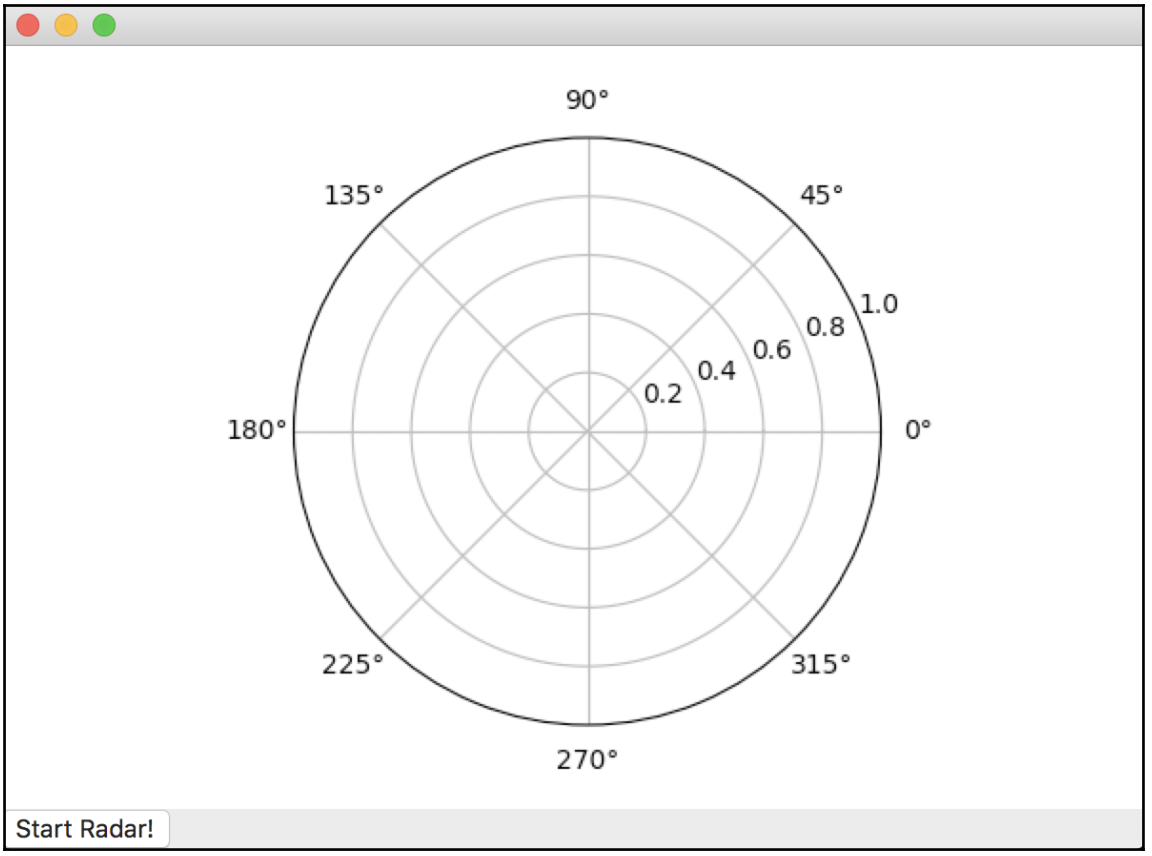

mainwindow2.ui - Qt Creator
mainwindow2.ui*
Welcome
Edit
Design
Debug
Projects
Help
Filter
Layouts
Vertical Layout
Horizontal Layout
Grid Layout
Form Layout
Spacers
Horizontal Spacer
Vertical Spacer
Buttons
Push Button
Tool Button
Radio Button
Check Box
Command Link Button
Dialog Button Box
Item Views (Model-Based)
List View
Tree View
Table View
Column View
Item Widgets (Item-Based)
List Widget
Tree Widget
Table Widget
Containers
Group Box
Scroll Area
Tool Box
Tab Widget
Stacked Widget
Frame
Widget
MDI Area
Dock Widget
Input Widgets
Combo Box
Font Combo Box
Line Edit
Text Edit
Type Here
Object
Class
MainWindow
QMainWindow
centralwidget
QWidget
widget
QWidget
menubar
QMenuBar
statusbar
QStatusBar
widget : QWidget
Property
Value
objectName
widget
QWidget
enabled
geometry
[(20, 10), 261 x 221]
X
20
Y
10
Width
261
Height
221
sizePolicy
[Preferred, Preferred, 0, 0]
minimumSize
0 x 0
maximumSize
16777215 x 16777215
sizeIncrement
0 x 0
baseSize
0 x 0
palette
Inherited
font
[.SF NS Text, 13]
cursor
Arrow
mouseTracking
tabletTracking
focusPolicy
NoFocus
contextMenuPolicy
DefaultContextMenu
Name
Used
Text
Shortcut
Checkable
ToolTip
Action Editor
Signals Slots Editor
Type to locate (⌘K)
1 Issues
2 Search Results
3 Application Output
4 Compile Output
5 Debugger Console
8 Test Results

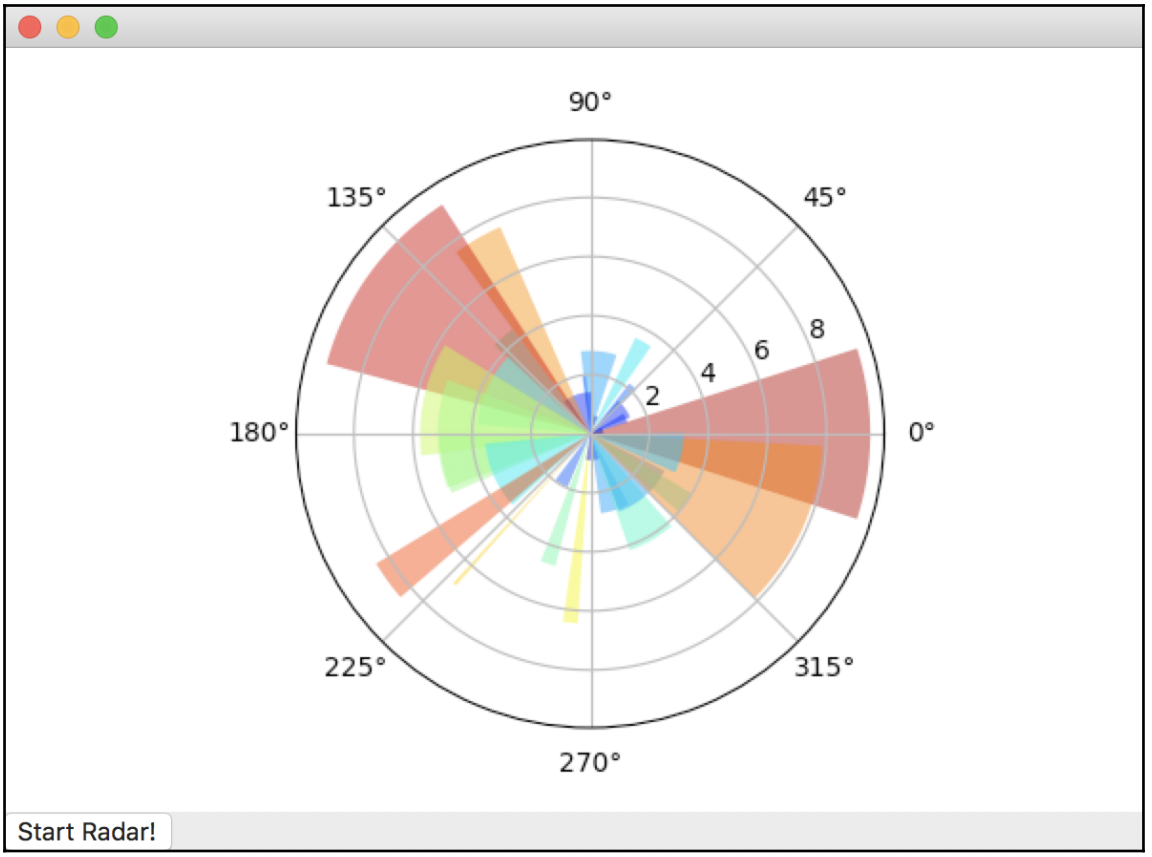

MainWindow
90°
45°
135°
180°
0°
225°
315°
270°
2.5
5.0
7.5
10.0

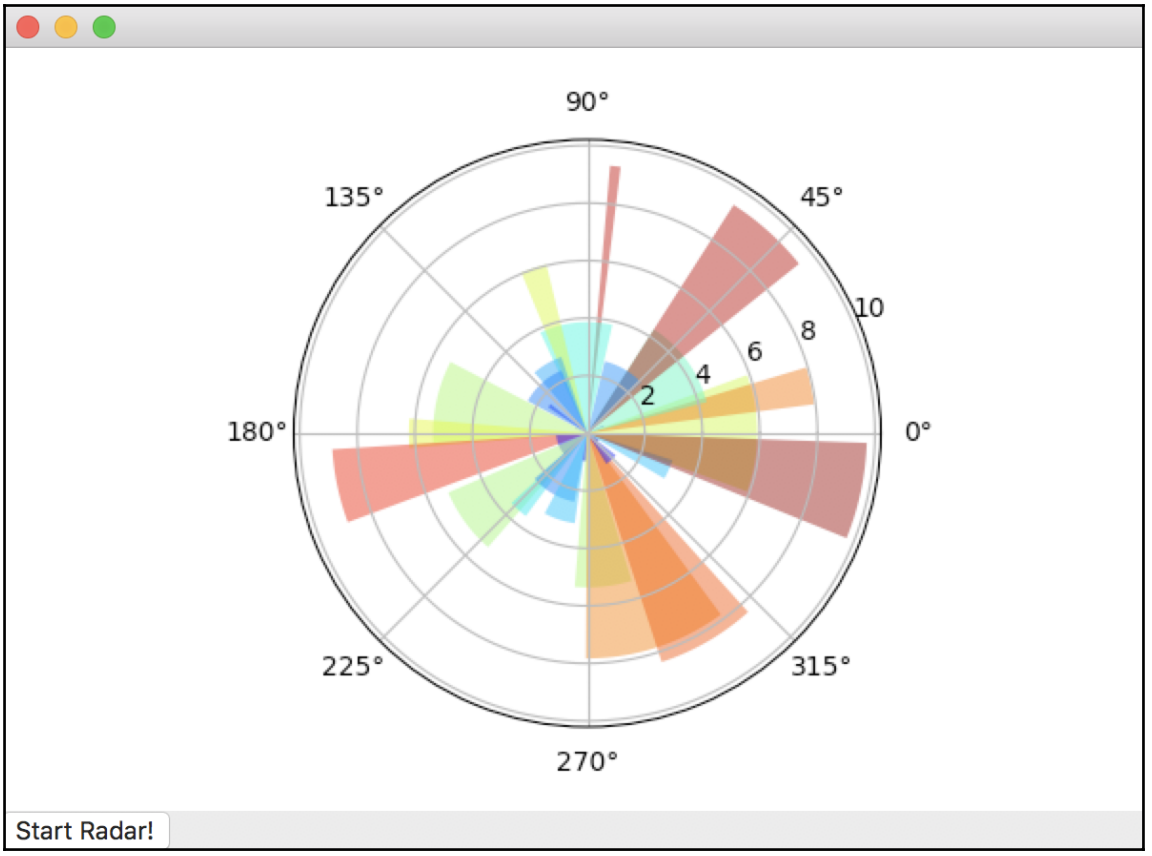
Chapter 7: Embedding Matplotlib in wxWidgets Using wxPython

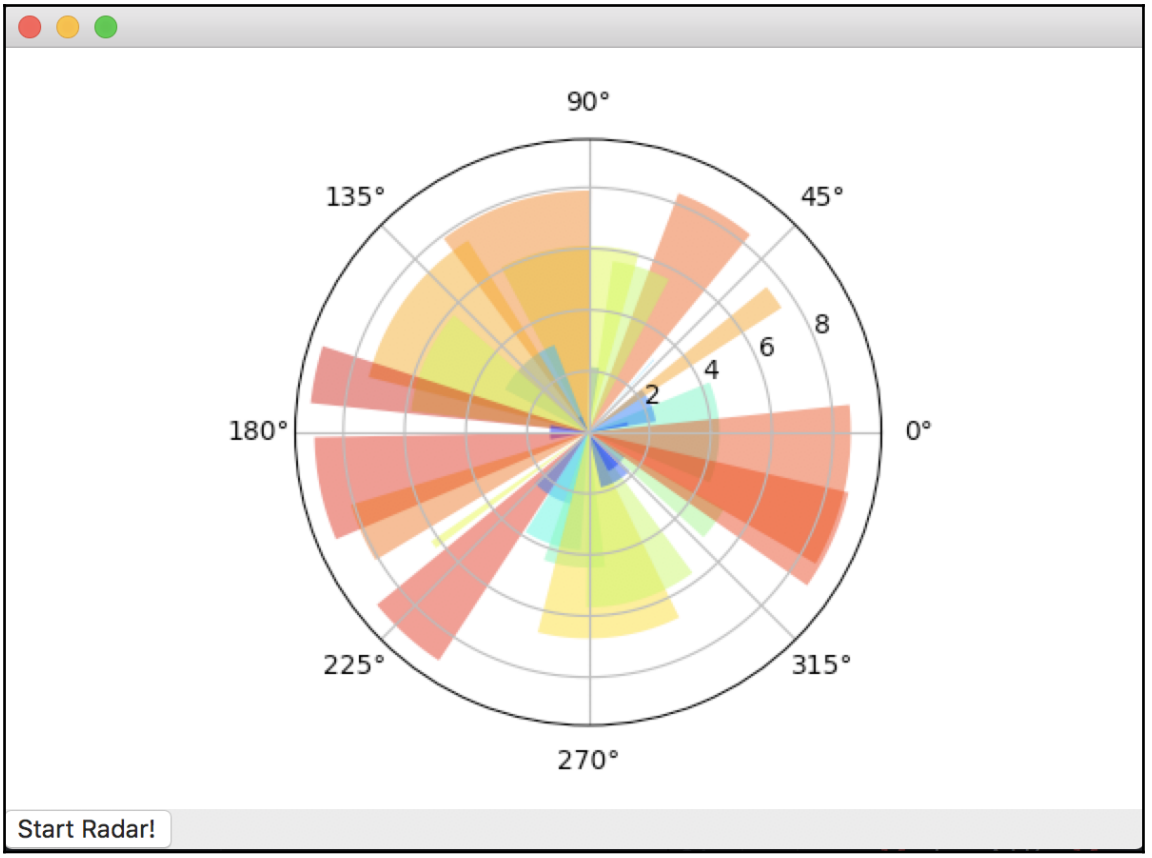


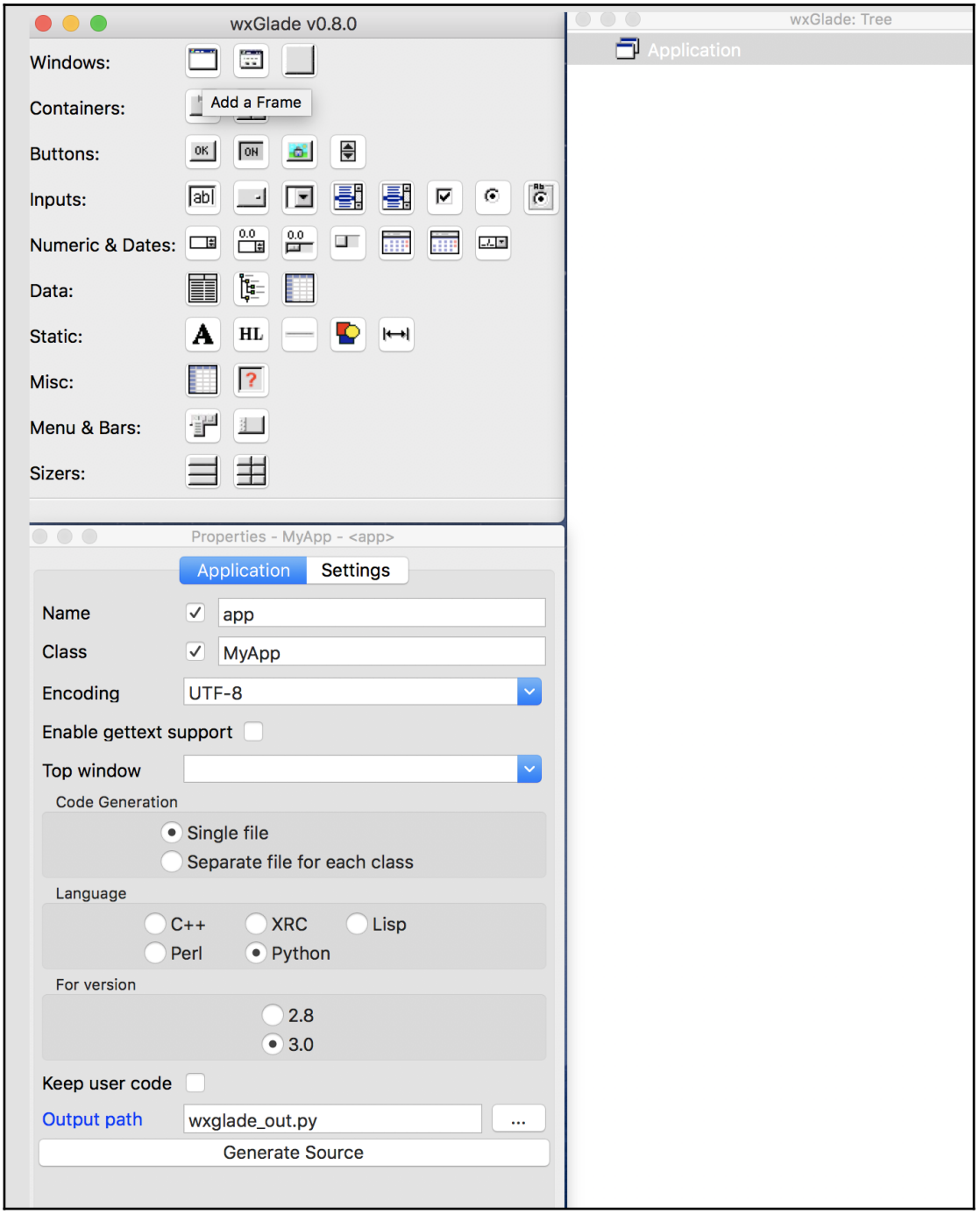

90°
45°
135°
180°
0°
225°
315°
270°
2
4
6
8
10

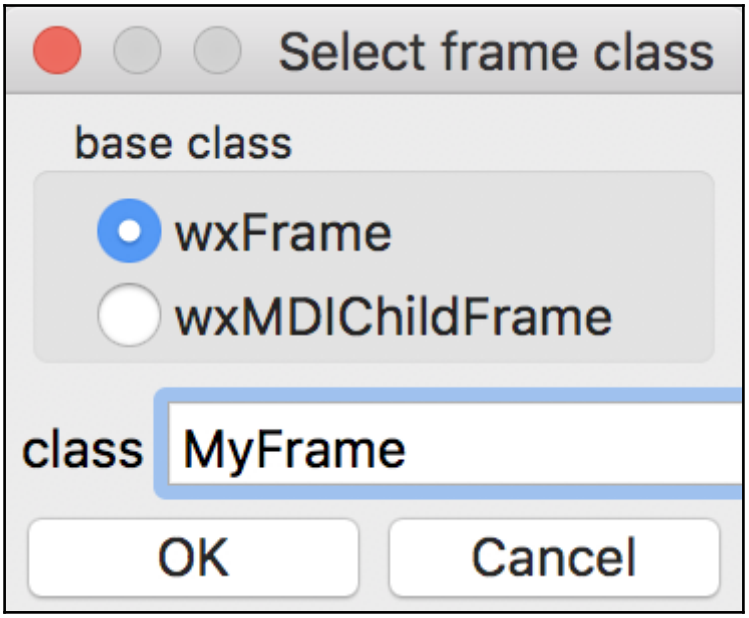

90°
135°
45°
1.0
0.8
0.6
0.4
0.2
180°
0°
225°
315°
270°
Start Radar!

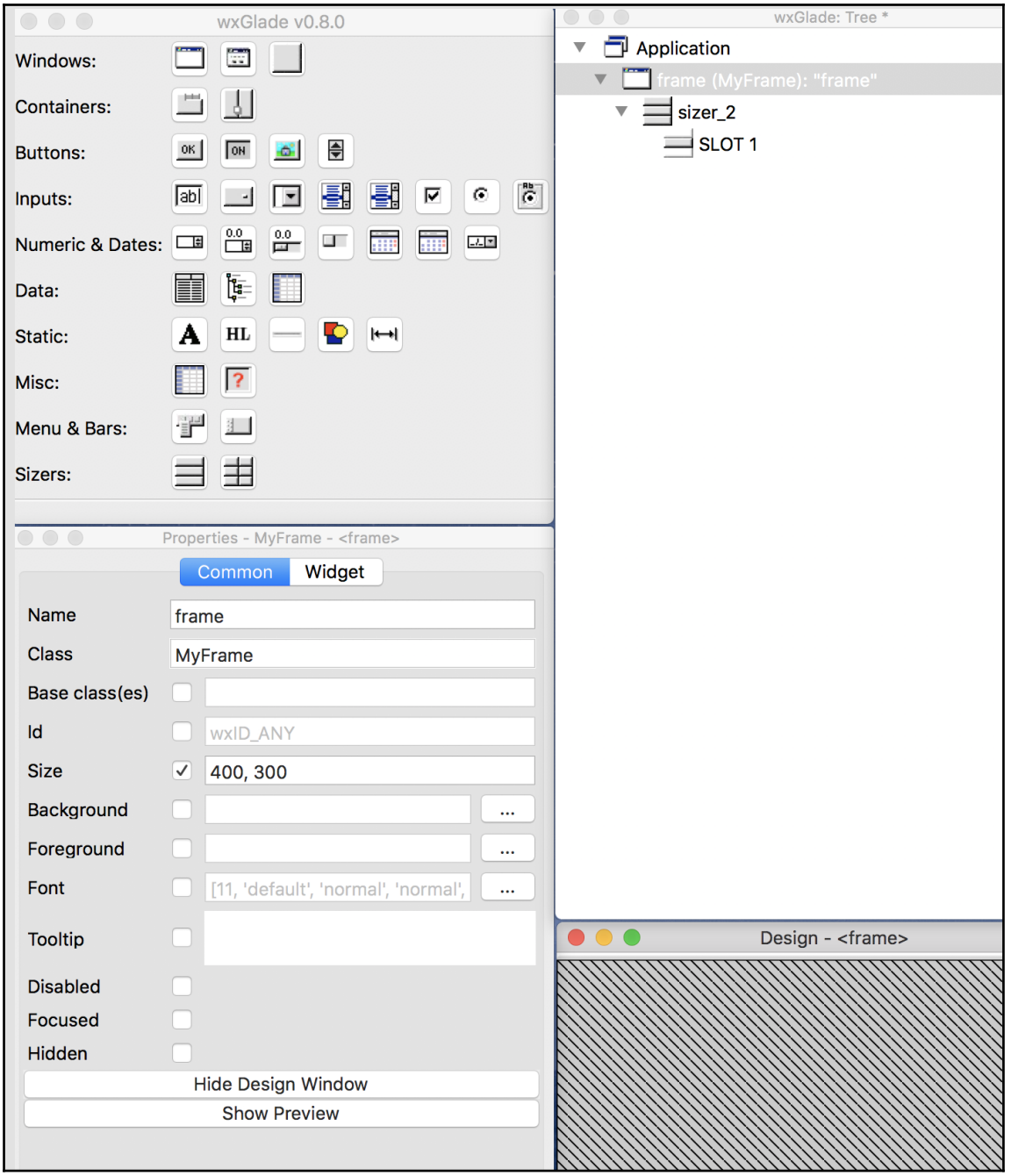

90°
45°
135°
180°
0°
225°
315°
270°
2
4
6
8
Start Radar!

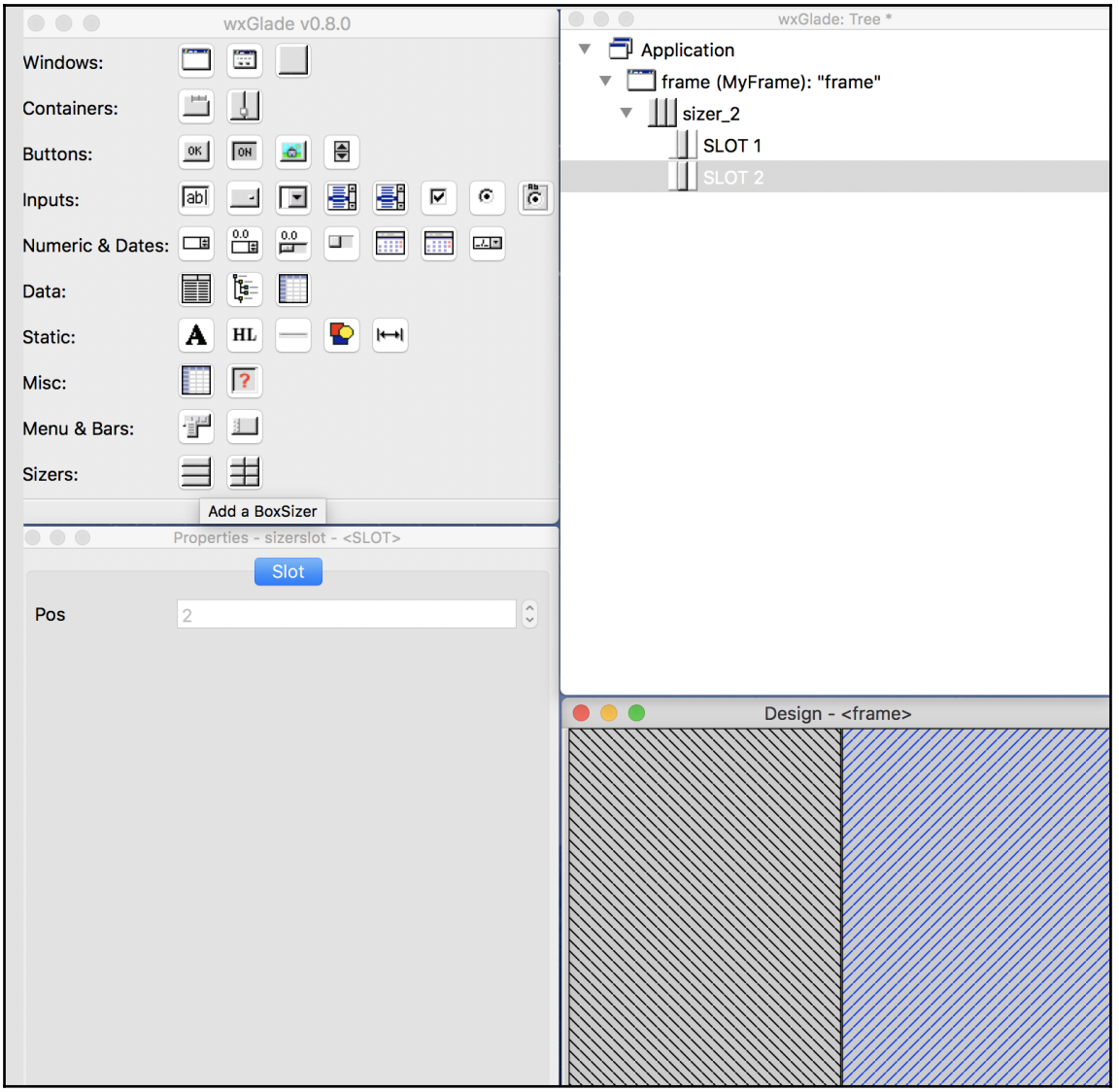

90°
45°
135°
180°
0°
225°
315°
270°
2
4
6
8
10
Start Radar!

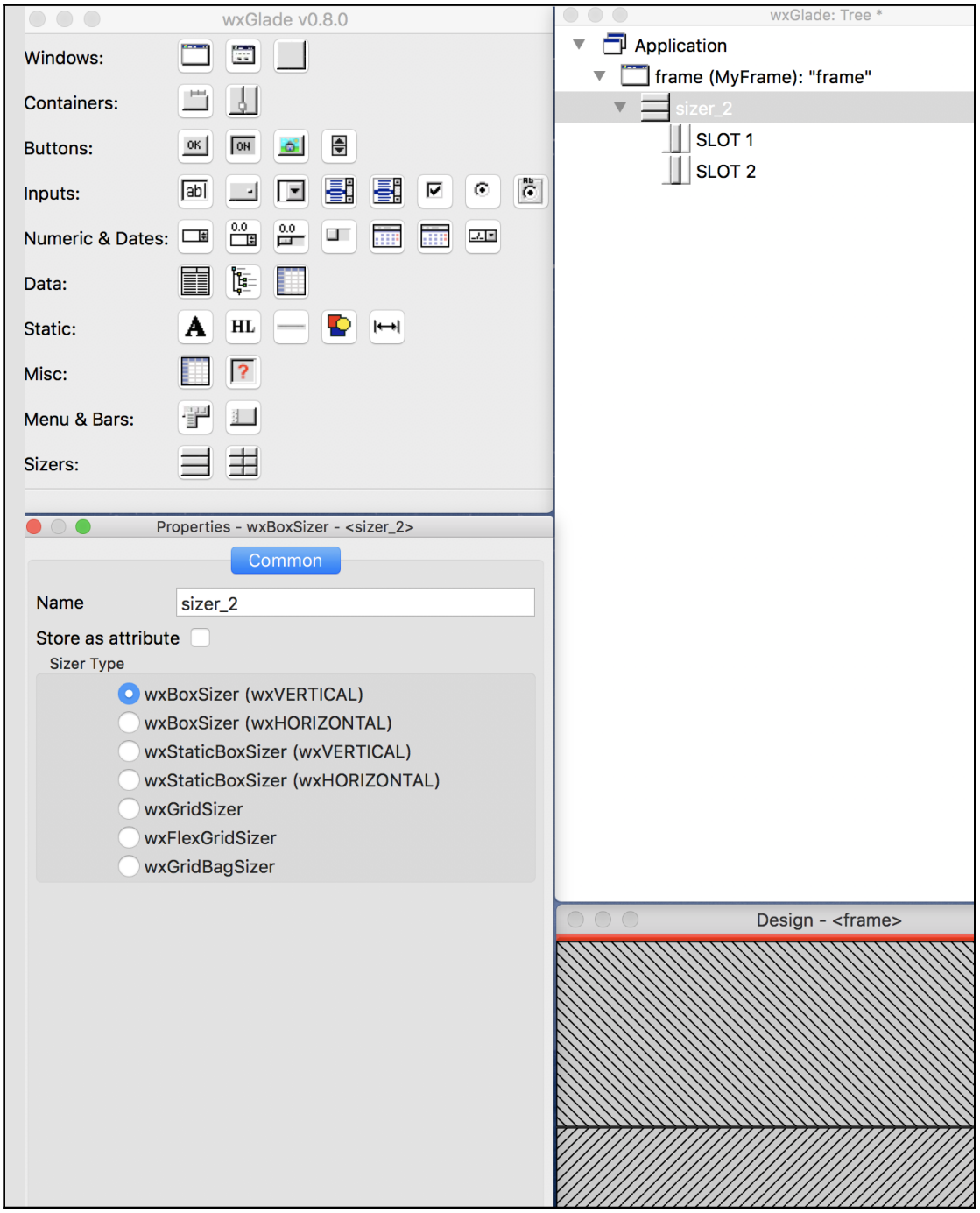

90°
45°
135°
180°
0°
225°
315°
270°
2
4
6
8
Start Radar!

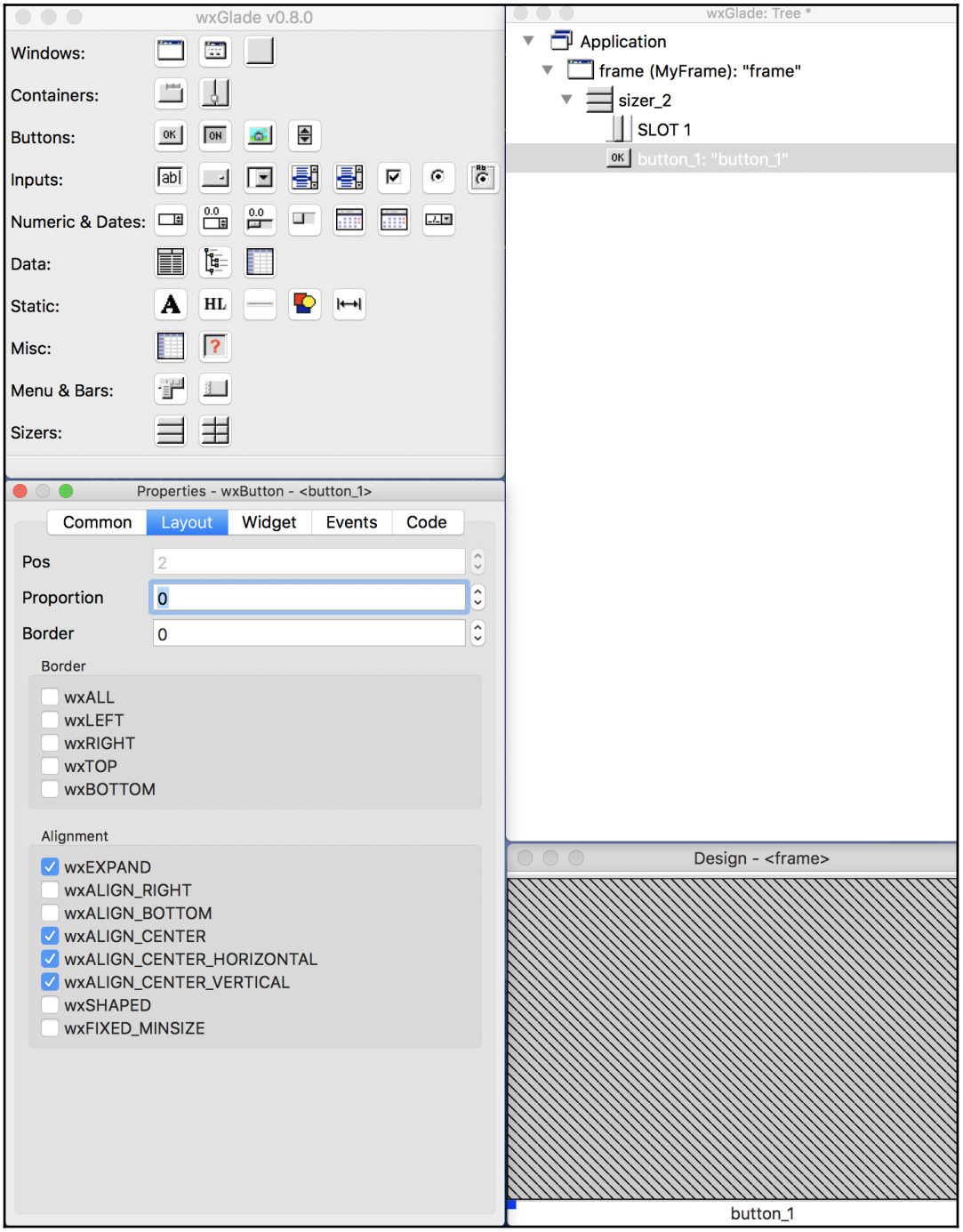

wxGlade v0.8.0
Windows:
Containers:
Add a Frame
Buttons:
Inputs:
Numeric & Dates:
Data:
Static:
Misc:
Menu & Bars:
Sizers:
wxGlade: Tree
Application
Properties - MyApp - <app>
Application
Settings
Name
app
Class
MyApp
Encoding
UTF-8
Enable gettext support
Top window
Code Generation
Single file
Separate file for each class
Language
C++
XRC
Lisp
Perl
Python
For version
2.8
3.0
Keep user code
Output path
wxglade_out.py
...
Generate Source

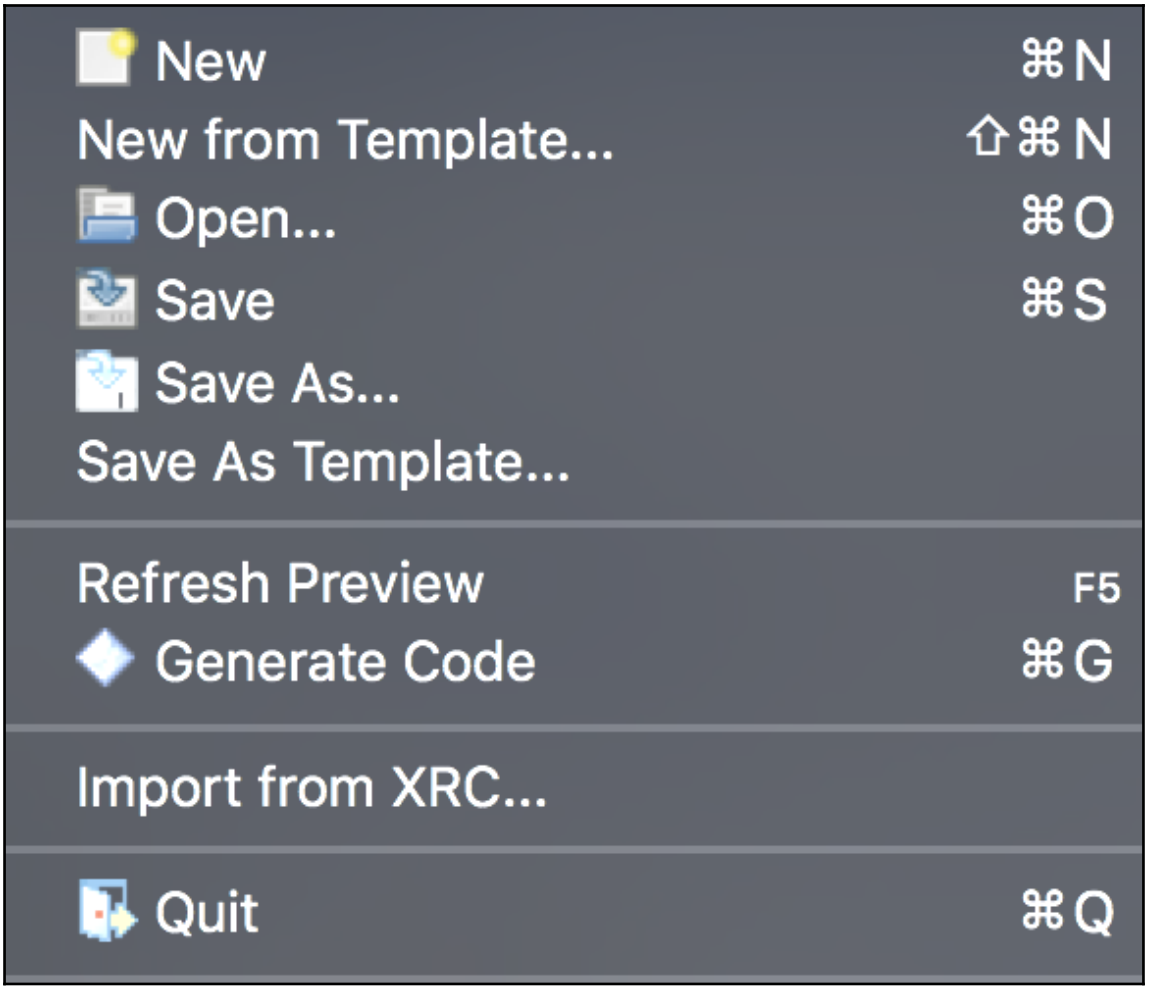

Select frame class
base class
wxFrame
wxMDIChildFrame
class
MyFrame
OK
Cancel


wxGlade v0.8.0
Windows:
Containers:
Buttons:
Inputs:
Numeric & Dates:
Data:
Static:
Misc:
Menu & Bars:
Sizers:
wxGlade: Tree *
Application
frame (MyFrame): "frame"
sizer_2
SLOT 1
Properties - MyFrame - <frame>
Common
Widget
Name
frame
Class
MyFrame
Base class(es)
Id
wxID_ANY
Size
400, 300
Background
Foreground
Font
[11, 'default', 'normal', 'normal',
Tooltip
Disabled
Focused
Hidden
Hide Design Window
Show Preview
Design - <frame>

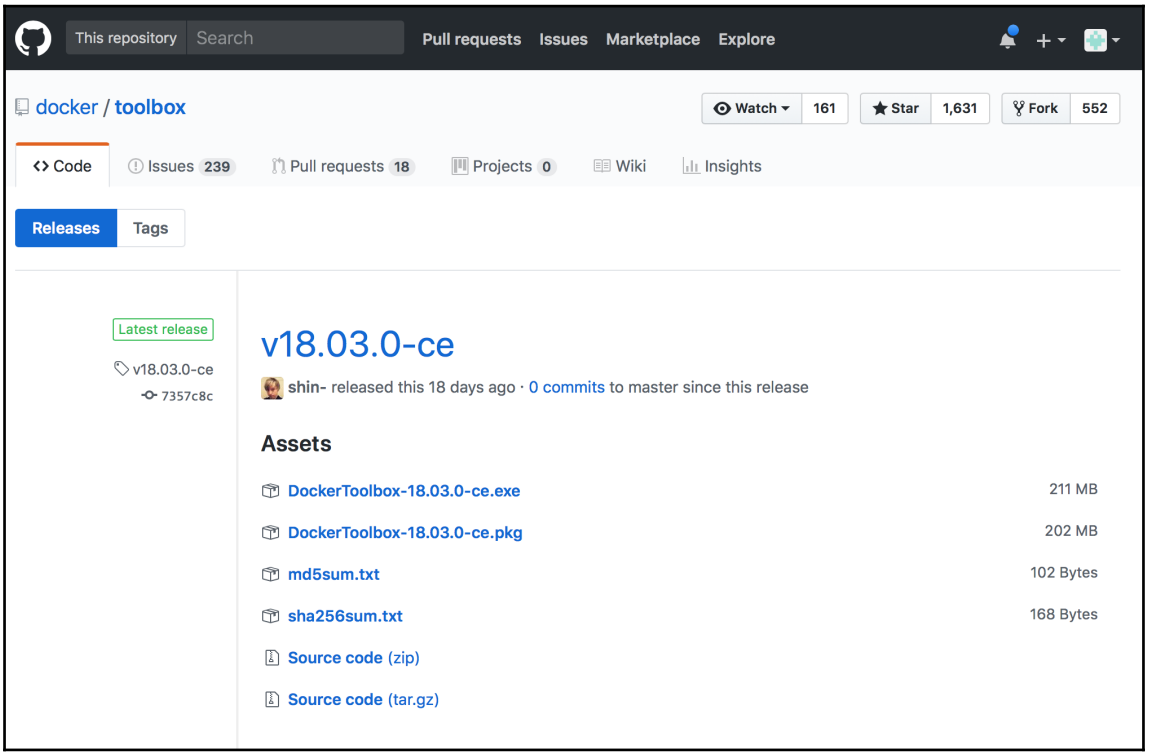

wxGlade v0.8.0
Windows:
Containers:
Buttons:
Inputs:
Numeric & Dates:
Data:
Static:
Misc:
Menu & Bars:
Sizers:
Add a BoxSizer
Properties - sizerslot - <SLOT>
Slot
Pos
2
wxGlade: Tree *
Application
frame (MyFrame): "frame"
sizer_2
SLOT 1
SLOT 2
Design - <frame>


wxGlade v0.8.0
Windows:
Containers:
Buttons:
Inputs:
Numeric & Dates:
Data:
Static:
Misc:
Menu & Bars:
Sizers:
wxGlade: Tree *
Application
frame (MyFrame): "frame"
sizer_2
SLOT 1
SLOT 2
Properties - wxBoxSizer - <sizer_2>
Common
Name
sizer_2
Store as attribute
Sizer Type
wxBoxSizer (wxVERTICAL)
wxBoxSizer (wxHORIZONTAL)
wxStaticBoxSizer (wxVERTICAL)
wxStaticBoxSizer (wxHORIZONTAL)
wxGridSizer
wxFlexGridSizer
wxGridBagSizer
Design - <frame>

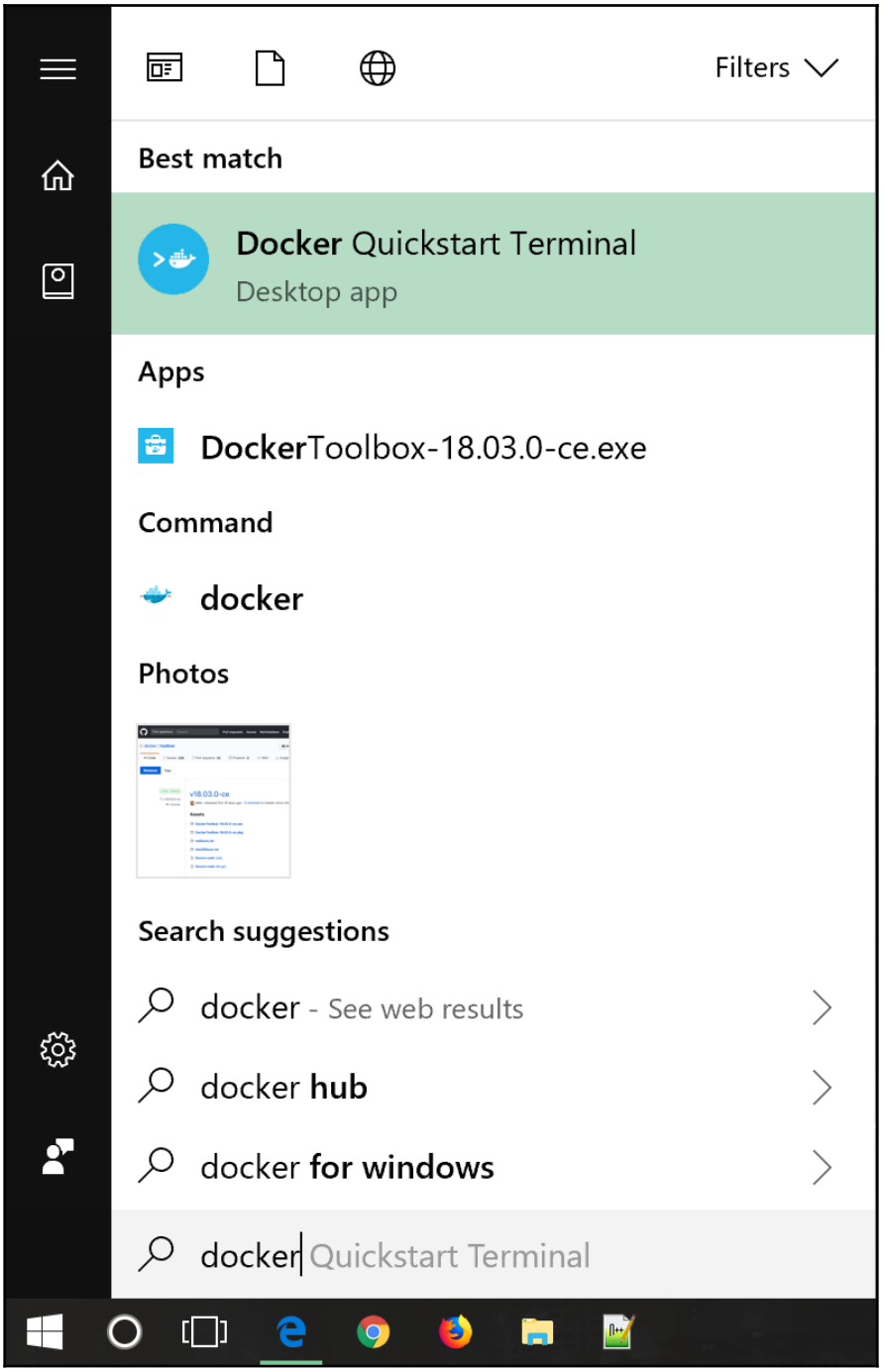

wxGlade v0.8.0
Windows:
Containers:
Buttons:
Inputs:
Numeric & Dates:
Data:
Static:
Misc:
Menu & Bars:
Sizers:
wxGlade: Tree *
Application
frame (MyFrame): "frame"
sizer_2
SLOT 1
button_1: "button_1"
Properties - wxButton - <button_1>
Common
Layout
Widget
Events
Code
Pos
2
Proportion
0
Border
0
Border
wxALL
wxLEFT
wxRIGHT
wxTOP
wxBOTTOM
Alignment
wxEXPAND
wxALIGN_RIGHT
wxALIGN_BOTTOM
wxALIGN_CENTER
wxALIGN_CENTER_HORIZONTAL
wxALIGN_CENTER_VERTICAL
wxSHAPED
wxFIXED_MINSIZE
Design - <frame>
button_1


New ⌘N
New from Template... ⇧⌘N
Open... ⌘O
Save ⌘S
Save As...
Save As Template...
Refresh Preview F5
Generate Code ⌘G
Import from XRC...
Quit ⌘Q

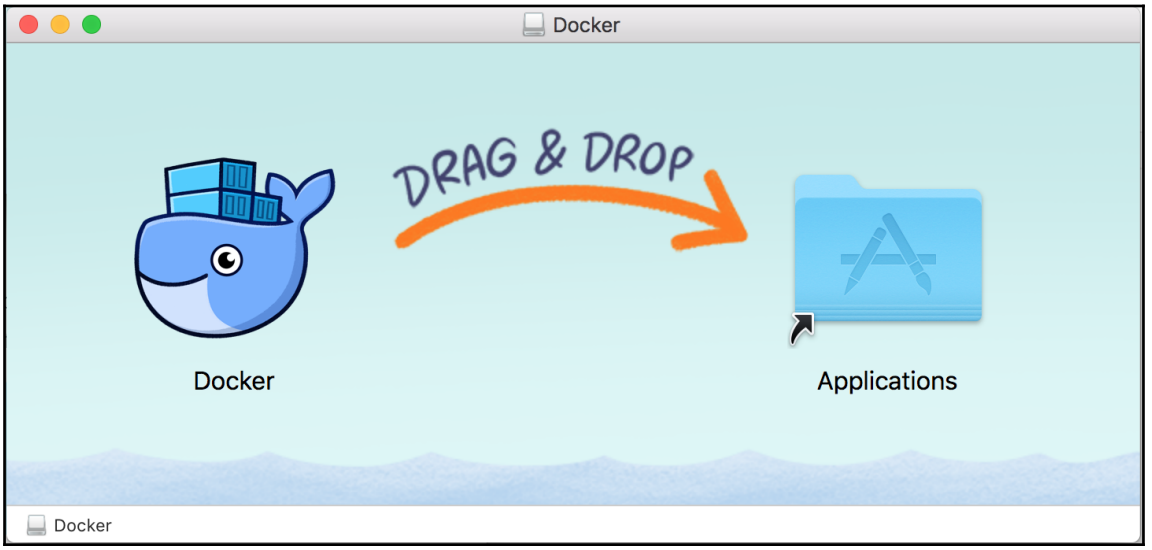
Chapter 8: Integrating Matplotlib with Web Applications

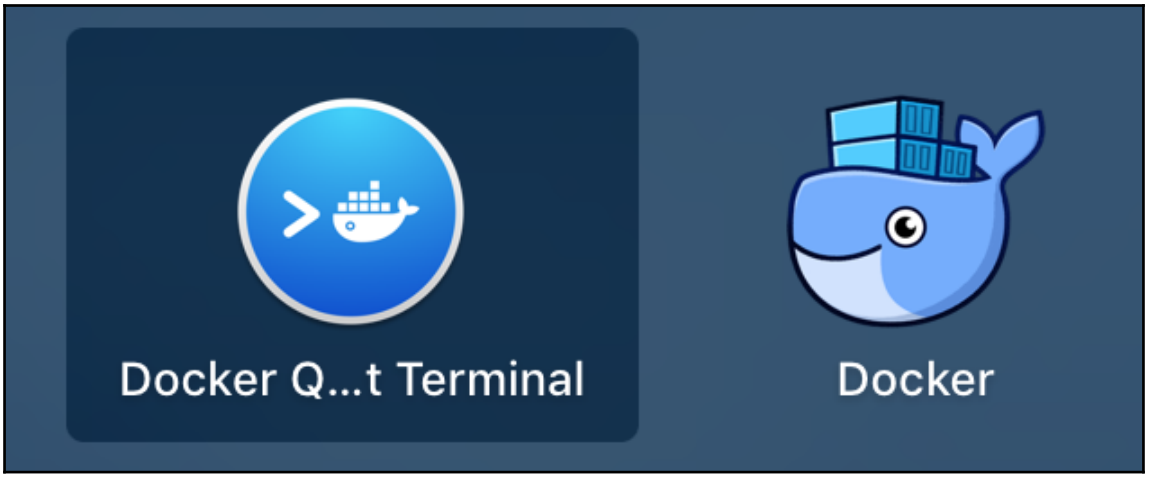


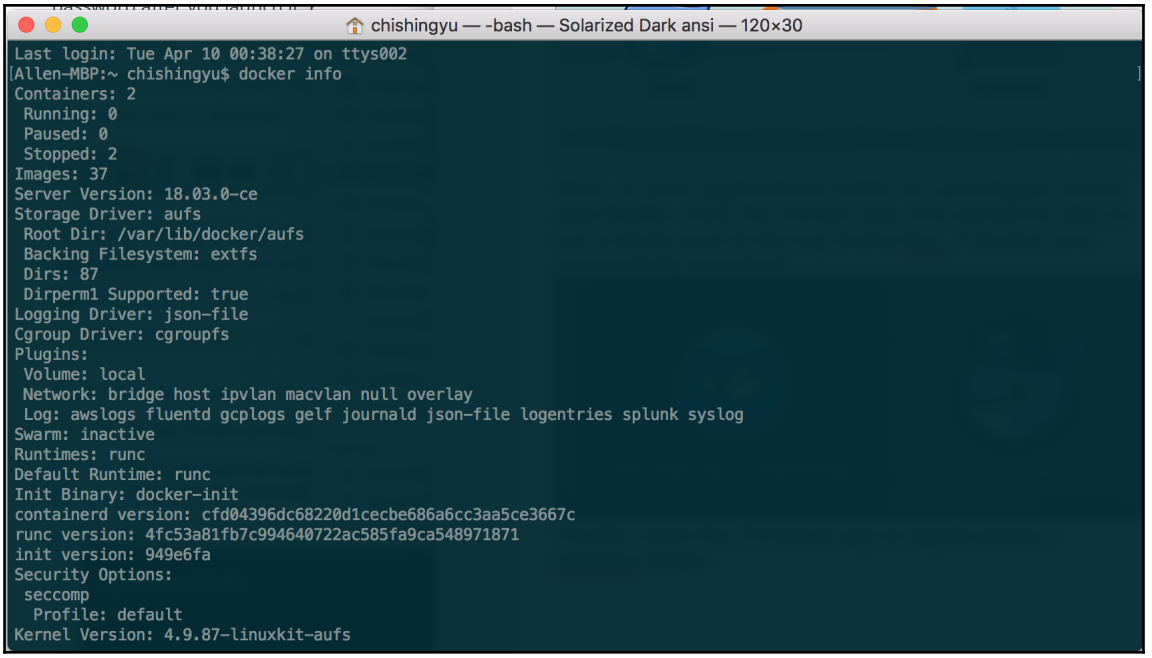

Setup - Docker Toolbox
Welcome to the Docker Toolbox Setup Wizard
This will install Docker Toolbox version 18.03.0-ce on your computer.
It is recommended that you close all other applications before continuing.
Click Next to continue, or Cancel to exit Setup.
Help Docker improve Toolbox.
This collects anonymous data to help us detect installation problems and improve the overall experience. We only use it to aggregate statistics and will never share it with third parties.
Next >
Cancel


Filters
Best match
Docker Quickstart Terminal
Desktop app
Apps
DockerToolbox-18.03.0-ce.exe
Command
docker
Photos
Search suggestions
docker - See web results
docker hub
docker for windows
docker Quickstart Terminal


MINGW64:/c/Users/Allen Yu
docker is configured to use the default machine with IP 192.168.99.100
For help getting started, check out the docs at https://docs.docker.com
Start interactive shell
Allen Yu@Surface MINGW64 ~
$


Docker
DRAG & DROP
Docker
Applications
Docker


Docker Q...t Terminal
Docker

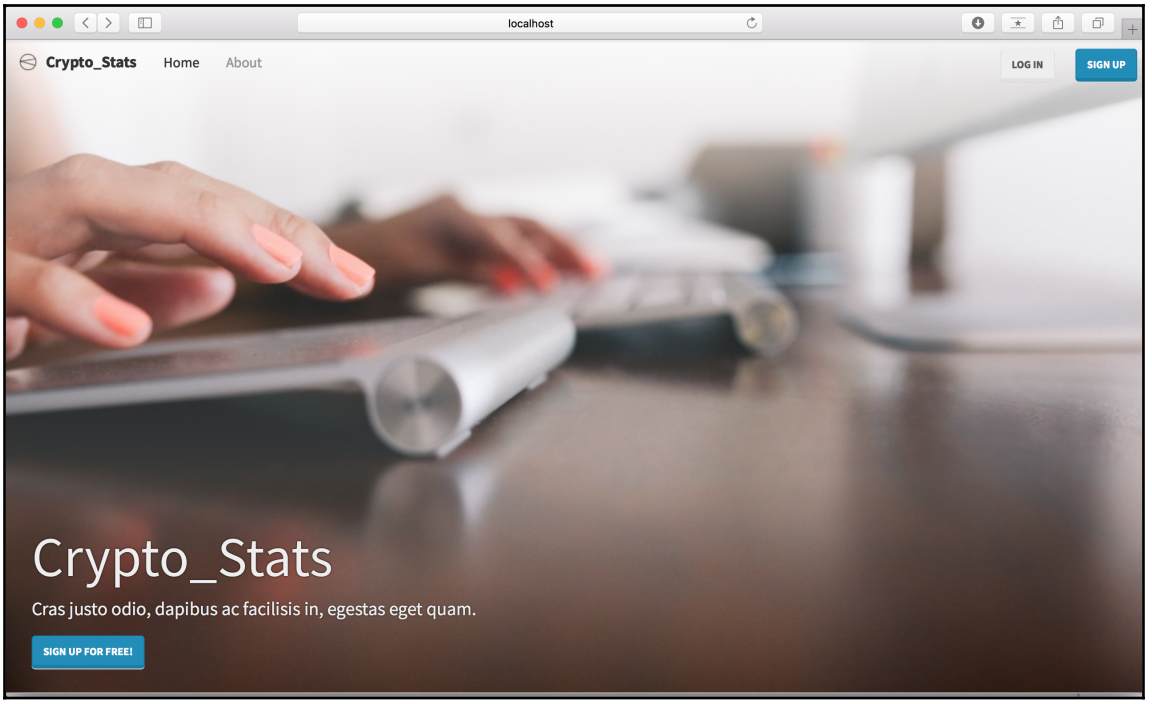

chishingyu — -bash — Solarized Dark ansi — 120×30
Last login: Tue Apr 10 00:38:27 on ttys002
Allen-MBP:~ chishingyu$ docker info
Containers: 2
Running: 0
Paused: 0
Stopped: 2
Images: 37
Server Version: 18.03.0-ce
Storage Driver: aufs
Root Dir: /var/lib/docker/aufs
Backing Filesystem: extfs
Dirs: 87
Dirperm1 Supported: true
Logging Driver: json-file
Cgroup Driver: cgroupfs
Plugins:
Volume: local
Network: bridge host ipvlan macvlan null overlay
Log: awslogs fluentd gcplogs gelf journald json-file logentries splunk syslog
Swarm: inactive
Runtimes: runc
Default Runtime: runc
Init Binary: docker-init
containerd version: cfd04396dc68220d1cecbe686a6cc3aa5ce3667c
runc version: 4fc53a81fb7c994640722ac585fa9ca548971871
init version: 949e6fa
Security Options:
seccomp
Profile: default
Kernel Version: 4.9.87-linuxkit-aufs

```
Allen-MBP:Django chishingyu$ docker build -t django .
Sending build context to Docker daemon  3.072kB
Step 1/6 : FROM python:3.6.5-slim
3.6.5-slim: Pulling from library/python
b0568b191983: Pull complete
2092fcb29521: Pull complete
c78f86fad884: Pull complete
d9888dfa4bc6: Pull complete
4a08cead57f4: Pull complete
Digest: sha256:2eb5910e86479d3e2dc1bb06411b4c039e31f5634bc3046e0ea505e4c8b434f2
Status: Downloaded newer image for python:3.6.5-slim
 ---> e7455bcafa38
Step 2/6 : ENV PYTHONUNBUFFERED 1
 ---> Running in 2fdbe143f820
Removing intermediate container 2fdbe143f820
 ---> 6695432580f9
Step 3/6 : RUN mkdir /app
 ---> Running in 85e5e04d6ab4
Removing intermediate container 85e5e04d6ab4
 ---> acab71d04980
Step 4/6 : WORKDIR /app
Removing intermediate container 9978565a7d83
 ---> 8fecc1b66602
Step 5/6 : ADD . /app/
 ---> 511963892172
Step 6/6 : RUN pip install -r requirements.txt
 ---> Running in d1421595f7f9
Collecting Django==2.0.4 (from -r requirements.txt (line 1))
  Downloading Django-2.0.4-py3-none-any.whl (7.1MB)
Collecting Matplotlib==2.2.2 (from -r requirements.txt (line 2))
  Downloading matplotlib-2.2.2-cp36-cp36m-manylinux1_x86_64.whl (12.6MB)
Collecting stockstats==0.2.0 (from -r requirements.txt (line 3))
  Downloading stockstats-0.2.0-py2.py3-none-any.whl
Collecting seaborn==0.8.1 (from -r requirements.txt (line 4))
  Downloading seaborn-0.8.1.tar.gz (178kB)
Collecting pytz (from Django==2.0.4->-r requirements.txt (line 1))
  Downloading pytz-2018.3-py2.py3-none-any.whl (509kB)
```

```
crypto_stats — -bash — Solarized Dark ansi — 120×28
Allen-MBP:Django chishingyu$ docker run -v "$(pwd)":/app django django-admin startproject --template=https://github.com/
arocks/edge/archive/master.zip --extens
ion=py,md,html,env crypto_stats
Allen-MBP:Django chishingyu$ ll
total 16
-rw-r--r--@  1 chishingyu  staff  389 Apr 10 01:05 Dockerfile
drwxr-xr-x@ 13 chishingyu  staff  416 Apr 16 21:39 crypto_stats
-rw-r--r--@  1 chishingyu  staff   65 Apr 10 01:14 requirements.txt
Allen-MBP:Django chishingyu$ cd crypto_stats/
Allen-MBP:crypto_stats chishingyu$ ll
total 56
-rw-r--r--@ 1 chishingyu  staff  1058 Apr 16 21:39 LICENSE.txt
-rw-r--r--@ 1 chishingyu  staff   365 Apr 16 21:39 Pipfile
-rw-r--r--@ 1 chishingyu  staff  9886 Apr 16 21:39 Pipfile.lock
-rw-r--r--@ 1 chishingyu  staff   726 Apr 16 21:39 README.md
drwxr-xr-x@ 3 chishingyu  staff    96 Apr 16 21:39 docs
drwxr-xr-x@ 3 chishingyu  staff    96 Apr 16 21:39 logs
drwxr-xr-x@ 5 chishingyu  staff   160 Apr 16 21:39 requirements
-rw-r--r--@ 1 chishingyu  staff    32 Apr 16 21:39 requirements.txt
drwxr-xr-x@ 9 chishingyu  staff   288 Apr 16 21:39 src
Allen-MBP:crypto_stats chishingyu$
```

```
Django — docker run -v ~/Dropbox/Matplotlib for Developer/Jupyter notebook/ch08/Django:/app -it django bash — Solarized...
[root@ca97a5c9e073:/app# cd crypto_stats                                                                                 ]
[root@ca97a5c9e073:/app/crypto_stats# pip install -r requirements.txt                                                    ]
Requirement already satisfied: django==2.0.4 in /usr/local/lib/python3.6/site-packages (from -r requirements/base.txt (l
ine 1))
Collecting django-authtools==1.6.0 (from -r requirements/base.txt (line 2))
  Downloading https://files.pythonhosted.org/packages/0f/ae/2a13ac543340777908da3823e1df751b1c07f89553ae28a16988935fb93b
/django-authtools-1.6.0.tar.gz (43kB)
    100% |████████████████████████████████| 51kB 4.4MB/s
Collecting django-braces==1.12.0 (from -r requirements/base.txt (line 3))
  Downloading https://files.pythonhosted.org/packages/be/80/c381f2bc40607ec9c6a4bfec54445b2fe13f8850d16ca4c1b32da3fd539b
/django_braces-1.12.0-py2.py3-none-any.whl
Collecting django-crispy-forms==1.7.2 (from -r requirements/base.txt (line 4))
  Downloading https://files.pythonhosted.org/packages/9a/05/6bad05742d185ec2fabfa4deab05cafde286eb3f383fba24b3674340aca2
/django_crispy_forms-1.7.2-py2.py3-none-any.whl (105kB)
    100% |████████████████████████████████| 112kB 5.9MB/s
Collecting django-environ==0.4.4 (from -r requirements/base.txt (line 5))
  Downloading https://files.pythonhosted.org/packages/0e/04/8a2b9d21ed73761b8e12201aa0531c0b0971fe8a832c9311cb3c2529fa98
/django_environ-0.4.4-py2.py3-none-any.whl
Collecting easy-thumbnails==2.5 (from -r requirements/base.txt (line 6))
  Downloading https://files.pythonhosted.org/packages/5a/50/15211bfae0096feced4b97c69e76f01758c6ceac802ee468f7d478d43c5d
/easy-thumbnails-2.5.tar.gz (67kB)
    100% |████████████████████████████████| 71kB 7.2MB/s
Collecting pillow==5.1.0 (from -r requirements/base.txt (line 7))
  Downloading https://files.pythonhosted.org/packages/5f/4b/8b54ab9d37b93998c81b364557dff9f61972c0f650efa0ceaf470b392740
/Pillow-5.1.0-cp36-cp36m-manylinux1_x86_64.whl (2.0MB)
    100% |████████████████████████████████| 2.0MB 777kB/s
Requirement already satisfied: pytz==2018.3 in /usr/local/lib/python3.6/site-packages (from -r requirements/base.txt (li
ne 8))
Requirement already satisfied: six==1.11.0 in /usr/local/lib/python3.6/site-packages (from -r requirements/base.txt (lin
e 9))
Collecting django-debug-toolbar==1.9.1 (from -r requirements/development.txt (line 3))
  Downloading https://files.pythonhosted.org/packages/b2/ff/eb95539d31b3f3c12803c8f18cefe7f9e6f7281b059a36dbc9ee9b52c558
/django_debug_toolbar-1.9.1-py2.py3-none-any.whl (206kB)
    100% |████████████████████████████████| 215kB 4.8MB/s
Collecting sqlparse==0.2.4 (from -r requirements/development.txt (line 5))
  Downloading https://files.pythonhosted.org/packages/65/85/20bdd72f4537cf2c4d5d005368d502b2f464ede22982e724a82c86268eda
/sqlparse-0.2.4-py2.py3-none-any.whl
Collecting werkzeug==0.14.1 (from -r requirements/development.txt (line 6))
  Downloading https://files.pythonhosted.org/packages/20/c4/12e3e56473e52375aa29c4764e70d1b8f3efa6682bef8d0aae04fe335243
/Werkzeug-0.14.1-py2.py3-none-any.whl (322kB)
    100% |████████████████████████████████| 327kB 3.4MB/s
Building wheels for collected packages: django-authtools, easy-thumbnails
  Running setup.py bdist_wheel for django-authtools ... done
  Stored in directory: /root/.cache/pip/wheels/72/63/99/d502e4960831dece04fbb26d623ae38b35ca8a5dcd4b184eee
  Running setup.py bdist_wheel for easy-thumbnails ... done
  Stored in directory: /root/.cache/pip/wheels/63/61/15/7b2e4c823212f6e88efc4bb20898a6a9661686bb5029f72900
Successfully built django-authtools easy-thumbnails
Installing collected packages: django-authtools, django-braces, django-crispy-forms, django-environ, pillow, easy-thumbn
ails, sqlparse, django-debug-toolbar, werkzeug
```

```
Django — docker run -v ~/Dropbox/Matplotlib for Developer/Jupyter notebook/ch08/Django:/app -it django bash — Solarized...
root@ca97a5c9e073:/app/crypto_stats/src# python manage.py migrate
Operations to perform:
  Apply all migrations: admin, auth, authtools, contenttypes, easy_thumbnails, profiles, sessions
Running migrations:
  Applying contenttypes.0001_initial... OK
  Applying auth.0001_initial... OK
  Applying authtools.0001_initial... OK
  Applying admin.0001_initial... OK
  Applying admin.0002_logentry_remove_auto_add... OK
  Applying contenttypes.0002_remove_content_type_name... OK
  Applying auth.0002_alter_permission_name_max_length... OK
  Applying auth.0003_alter_user_email_max_length... OK
  Applying auth.0004_alter_user_username_opts... OK
  Applying auth.0005_alter_user_last_login_null... OK
  Applying auth.0006_require_contenttypes_0002... OK
  Applying auth.0007_alter_validators_add_error_messages... OK
  Applying auth.0008_alter_user_username_max_length... OK
  Applying auth.0009_alter_user_last_name_max_length... OK
  Applying authtools.0002_django18... OK
  Applying authtools.0003_auto_20160128_0912... OK
  Applying easy_thumbnails.0001_initial... OK
  Applying easy_thumbnails.0002_thumbnaildimensions... OK
  Applying profiles.0001_initial... OK
  Applying sessions.0001_initial... OK
root@ca97a5c9e073:/app/crypto_stats/src# python manage.py createsuperuser
Email address: test@test.com
Name: Allen
Password:
Password (again):
Superuser created successfully.
root@ca97a5c9e073:/app/crypto_stats/src#
```

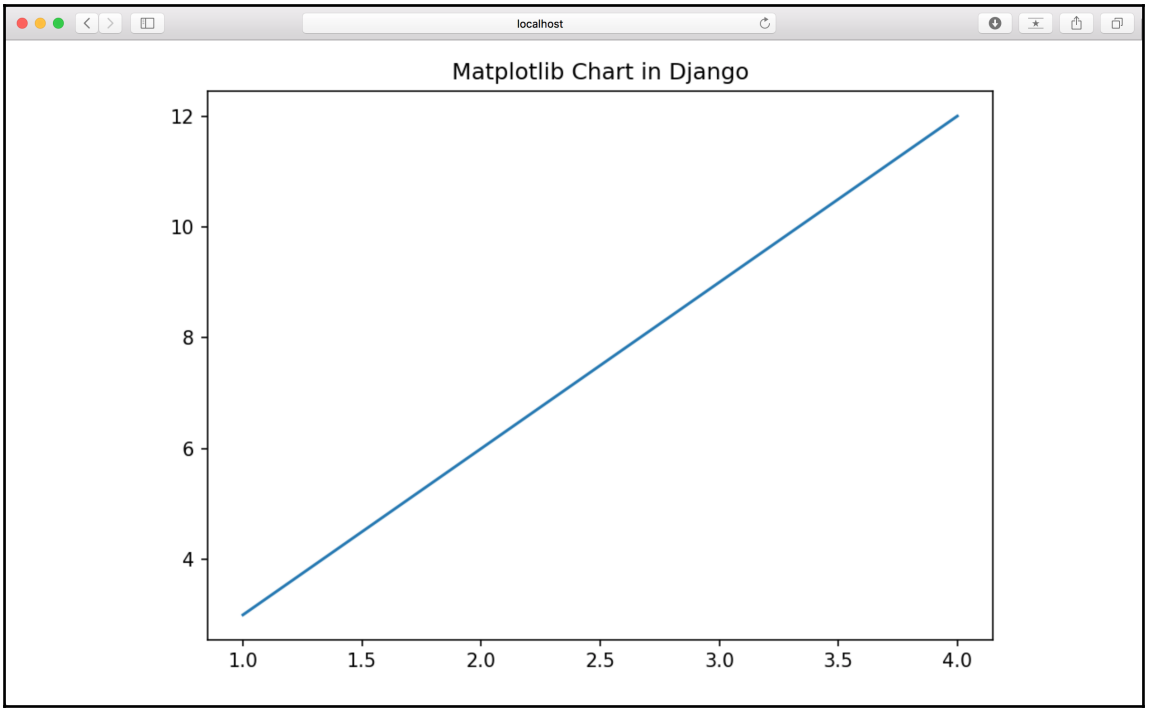

localhost
Crypto_Stats
Home
About
LOG IN
SIGN UP
Crypto_Stats
Cras justo odio, dapibus ac facilisis in, egestas eget quam.
SIGN UP FOR FREE!

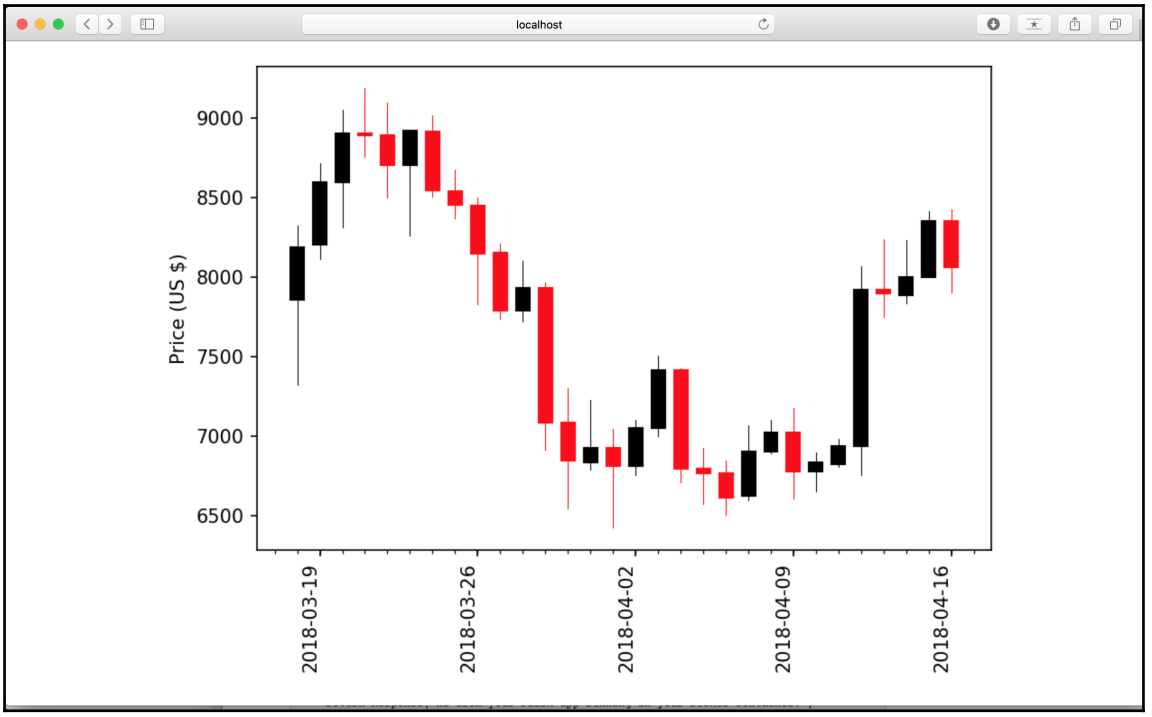
```
Django — docker run -v ~/Dropbox/Matplotlib for Developer/Jupyter notebook/ch08/Django:/app -it django bash — Solarized...
root@ca97a5c9e073:/app/crypto_stats/src# python manage.py migrate
Operations to perform:
  Apply all migrations: admin, auth, authtools, contenttypes, easy_thumbnails, profiles, sessions
Running migrations:
  Applying contenttypes.0001_initial... OK
  Applying auth.0001_initial... OK
  Applying authtools.0001_initial... OK
  Applying admin.0001_initial... OK
  Applying admin.0002_logentry_remove_auto_add... OK
  Applying contenttypes.0002_remove_content_type_name... OK
  Applying auth.0002_alter_permission_name_max_length... OK
  Applying auth.0003_alter_user_email_max_length... OK
  Applying auth.0004_alter_user_username_opts... OK
  Applying auth.0005_alter_user_last_login_null... OK
  Applying auth.0006_require_contenttypes_0002... OK
  Applying auth.0007_alter_validators_add_error_messages... OK
  Applying auth.0008_alter_user_username_max_length... OK
  Applying auth.0009_alter_user_last_name_max_length... OK
  Applying authtools.0002_django18... OK
  Applying authtools.0003_auto_20160128_0912... OK
  Applying easy_thumbnails.0001_initial... OK
  Applying easy_thumbnails.0002_thumbnaildimensions... OK
  Applying profiles.0001_initial... OK
  Applying sessions.0001_initial... OK
root@ca97a5c9e073:/app/crypto_stats/src# python manage.py createsuperuser
Email address: test@test.com
Name: Allen
Password:
Password (again):
Superuser created successfully.
root@ca97a5c9e073:/app/crypto_stats/src#
```

Container ID

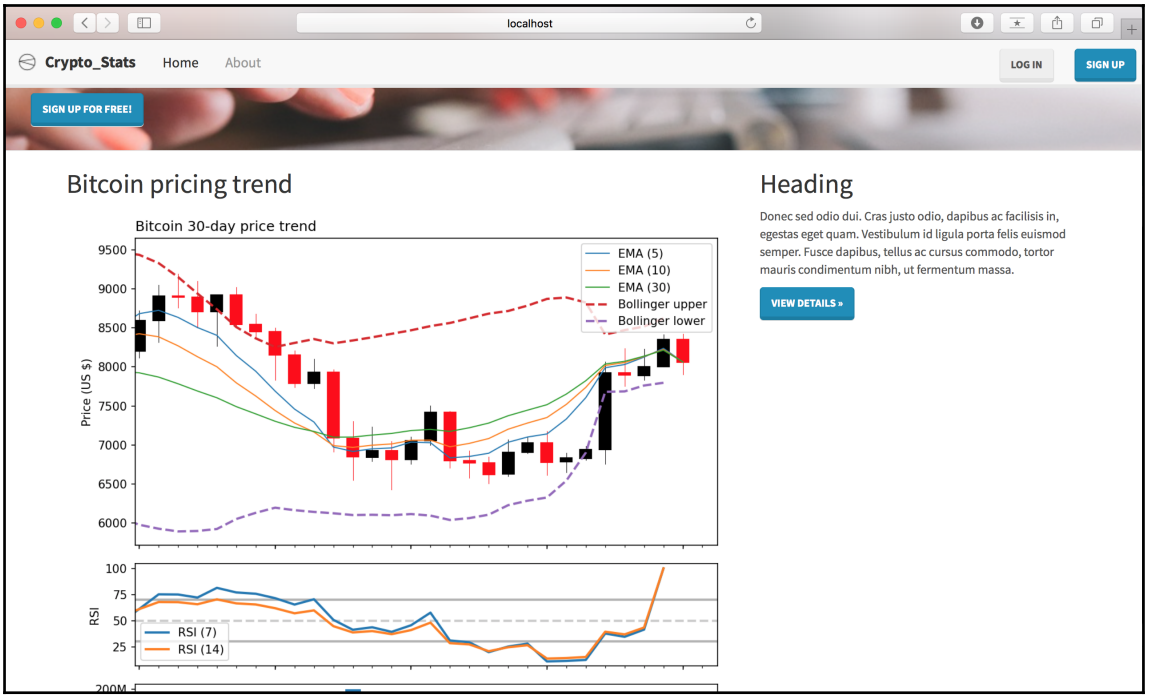
Django

Name	Date Modified	Size	Kind
crypto_stats	Today at 1:11 AM	--	Folder
docs	Yesterday at 9:39 PM	--	Folder
LICENSE.txt	Yesterday at 9:39 PM	1 KB	Plain Text
logs	Yesterday at 10:19 PM	--	Folder
Pipfile	Yesterday at 9:39 PM	365 bytes	TextEdit
Pipfile.lock	Yesterday at 9:39 PM	10 KB	Document
README.md	Yesterday at 9:39 PM	726 bytes	Markdo...ument
requirements	Yesterday at 9:39 PM	--	Folder
requirements.txt	Yesterday at 9:39 PM	32 bytes	Plain Text
src	Today at 1:11 AM	--	Folder
accounts	Yesterday at 10:19 PM	--	Folder
bitcoin	Today at 2:11 AM	--	Folder
__init__.py	Today at 1:10 AM	Zero bytes	Python Source
__pycache__	Today at 2:11 AM	--	Folder
admin.py	Today at 1:10 AM	63 bytes	Python Source
apps.py	Today at 1:10 AM	89 bytes	Python Source
migrations	Today at 1:10 AM	--	Folder
models.py	Today at 1:10 AM	57 bytes	Python Source
tests.py	Today at 1:10 AM	60 bytes	Python Source

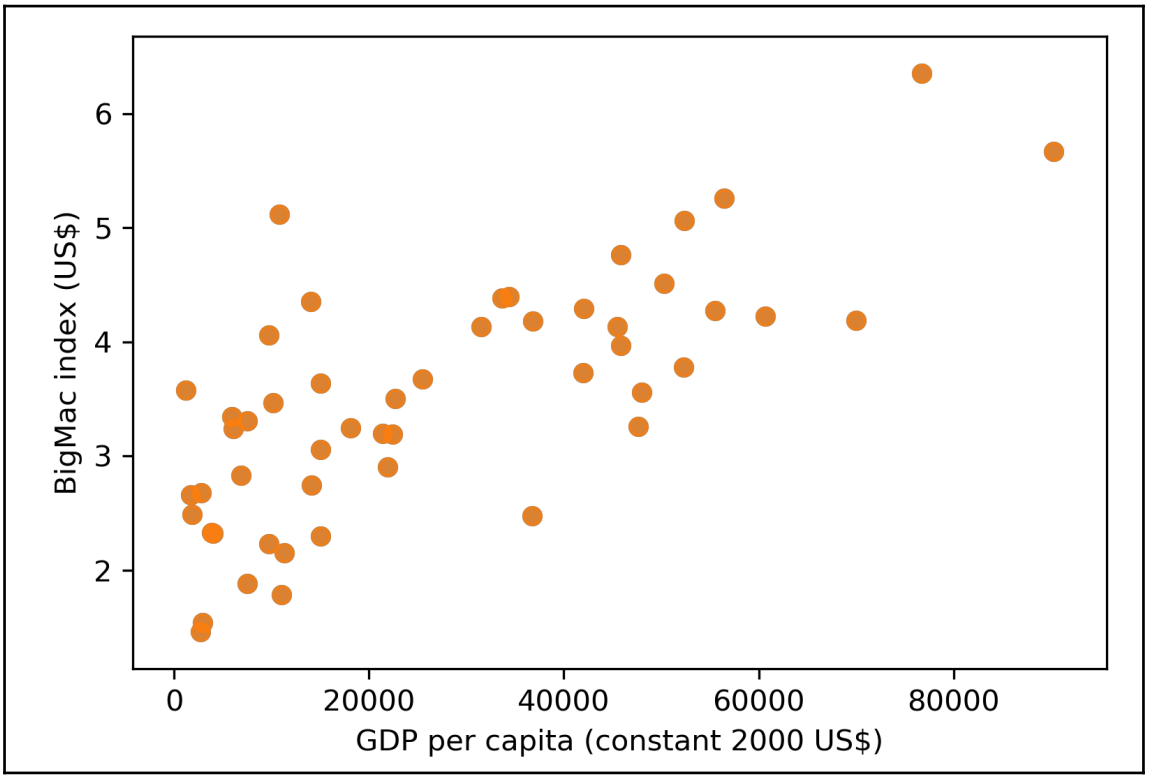

localhost
Matplotlib Chart in Django
12
10
8
6
4
1.0
1.5
2.0
2.5
3.0
3.5
4.0

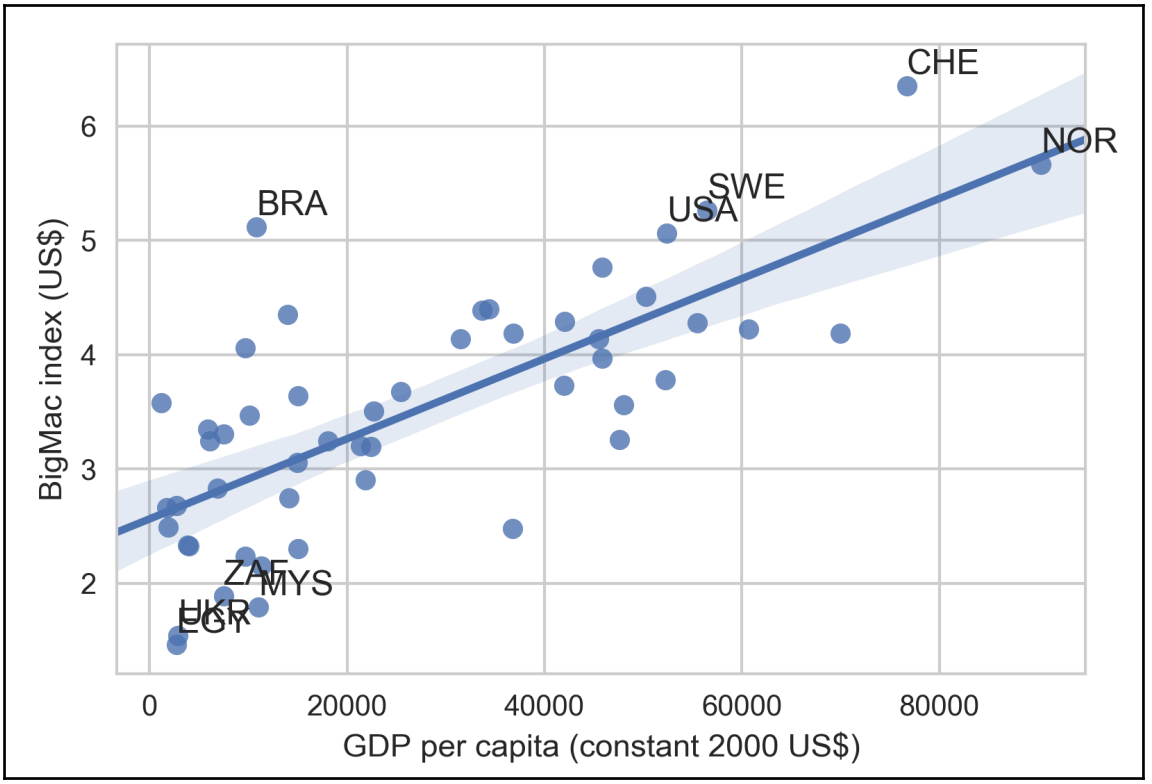

localhost
Price (US $)
9000
8500
8000
7500
7000
6500
2018-03-19
2018-03-26
2018-04-02
2018-04-09
2018-04-16

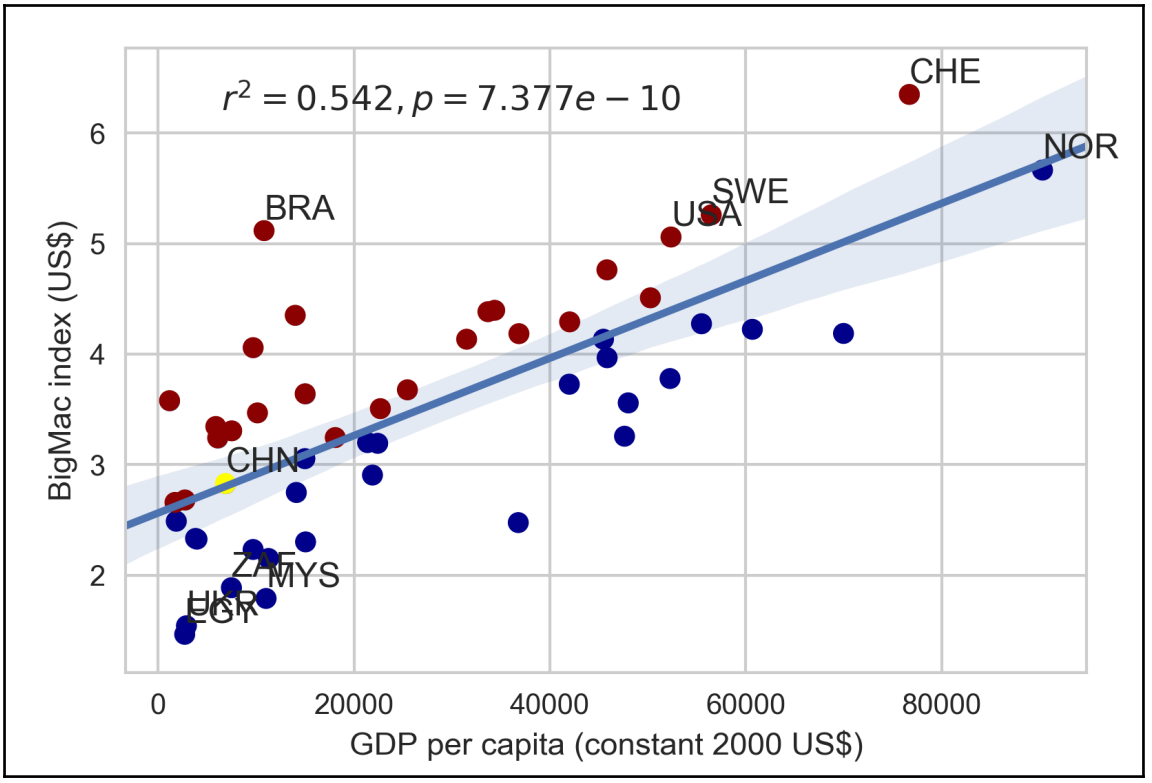

localhost
Bitcoin 30-day price trend
EMA (5)
EMA (10)
EMA (30)
Bollinger upper
Bollinger lower
Price (US $)
9500
9000
8500
8000
7500
7000
6500
6000
RSI
100
75
50
25
RSI (7)
RSI (14)
Volume (US $)
200M
100M
0M
2018-03-19
2018-03-26
2018-04-02
2018-04-09
2018-04-16

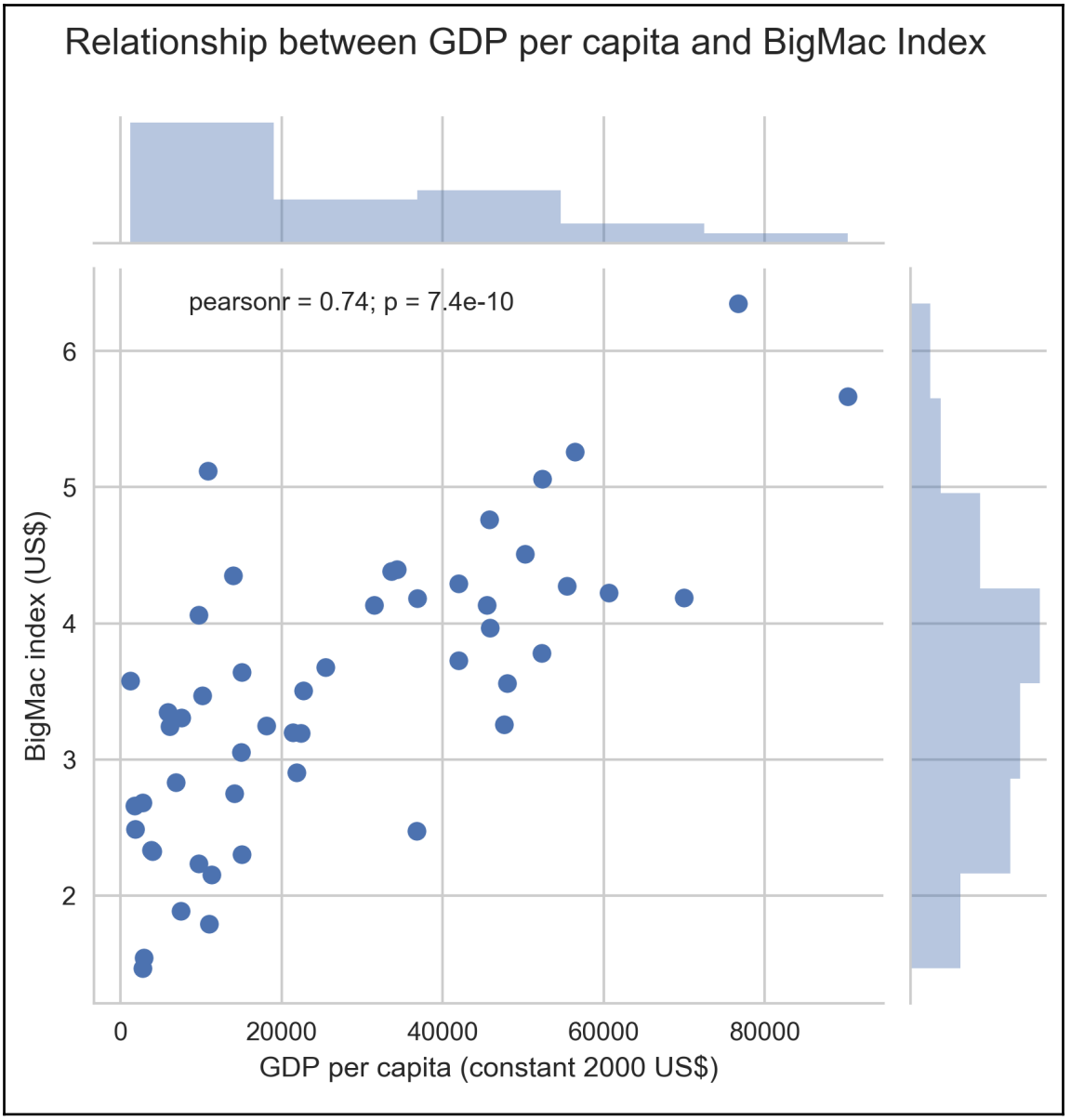

localhost
Crypto_Stats
Home
About
LOG IN
SIGN UP
SIGN UP FOR FREE!
Bitcoin pricing trend
Bitcoin 30-day price trend
Price (US $)
EMA (5)
EMA (10)
EMA (30)
Bollinger upper
Bollinger lower
RSI
RSI (7)
RSI (14)
Heading
Donec sed odio dui. Cras justo odio, dapibus ac facilisis in, egestas eget quam. Vestibulum id ligula porta felis euismod semper. Fusce dapibus, tellus ac cursus commodo, tortor mauris condimentum nibh, ut fermentum massa.
VIEW DETAILS »

Chapter 9: Matplotlib in the Real World




CHE
NOR
SWE
USA
BRA
ZAF
MYS
UKR
EGY
6
5
4
3
2
BigMac index (US$)
0
20000
40000
60000
80000
GDP per capita (constant 2000 US$)


$r^2 = 0.542, p = 7.377e - 10$
CHE
NOR
SWE
USA
BRA
CHN
ZAF
MYS
UKR
EGY
BigMac index (US$)
GDP per capita (constant 2000 US$)
0
20000
40000
60000
80000
2
3
4
5
6


Relationship between GDP per capita and BigMac Index
pearsonr = 0.74; p = 7.4e-10
BigMac index (US$)
6
5
4
3
2
0
20000
40000
60000
80000
GDP per capita (constant 2000 US$)

Unemployment rates and earni ×

Allen

Secure | https://www.bls.gov/emp/ep_table_001.htm

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INTER-INDUSTRY RELATIONSHIPS (INPUT-OUTPUT, FINAL DEMAND MATRIX)
INDUSTRY OUTPUT AND EMPLOYMENT
OCCUPATIONAL EMPLOYMENT
EDUCATION AND TRAINING
EMPLOYMENT REQUIREMENTS MATRIX
FACTOR ANALYSIS
DOCUMENTATION

Unemployment rates and earnings by educational attainment

Unemployment rates and earnings by educational attainment, 2017

Educational attainment	Unemployment rate (%)	Median usual weekly earnings ($)
Doctoral degree	1.5	1,743
Professional degree	1.5	1,836
Master's degree	2.2	1,401
Bachelor's degree	2.5	1,173
Associate's degree	3.4	836
Some college, no degree	4.0	774
High school diploma	4.6	712
Less than a high school diploma	6.5	520
Total	3.6	907

Note: Data are for persons age 25 and over. Earnings are for full-time wage and salary workers.
Source: Current Population Survey, U.S. Department of Labor, U.S. Bureau of Labor Statistics

These education categories reflect only the highest level of ... raining programs in the form of apprenticeships and other on-the-jo... es. For more information on training, see: https://www.bls.gov/emp...

BLS has some data on the employment status of the civilian ... ent, sex, race, and Hispanic origin online.

The Census Bureau also has some data on educational attai...

Last Modified Date: March 27, 2018

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Cast...
Translate to English
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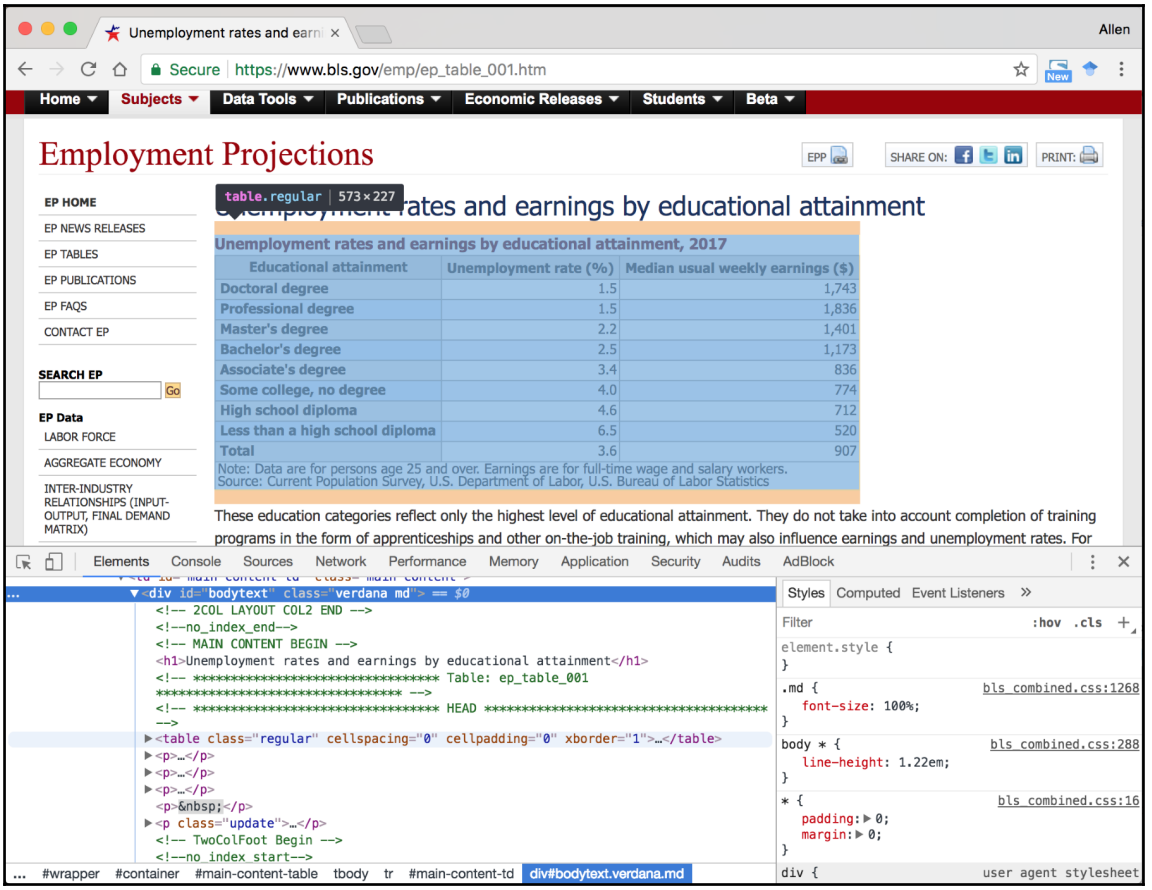
Take Webpage Screenshots Entirely - FireShot
View Page Source
Inspect


Unemployment rates and earni
Allen
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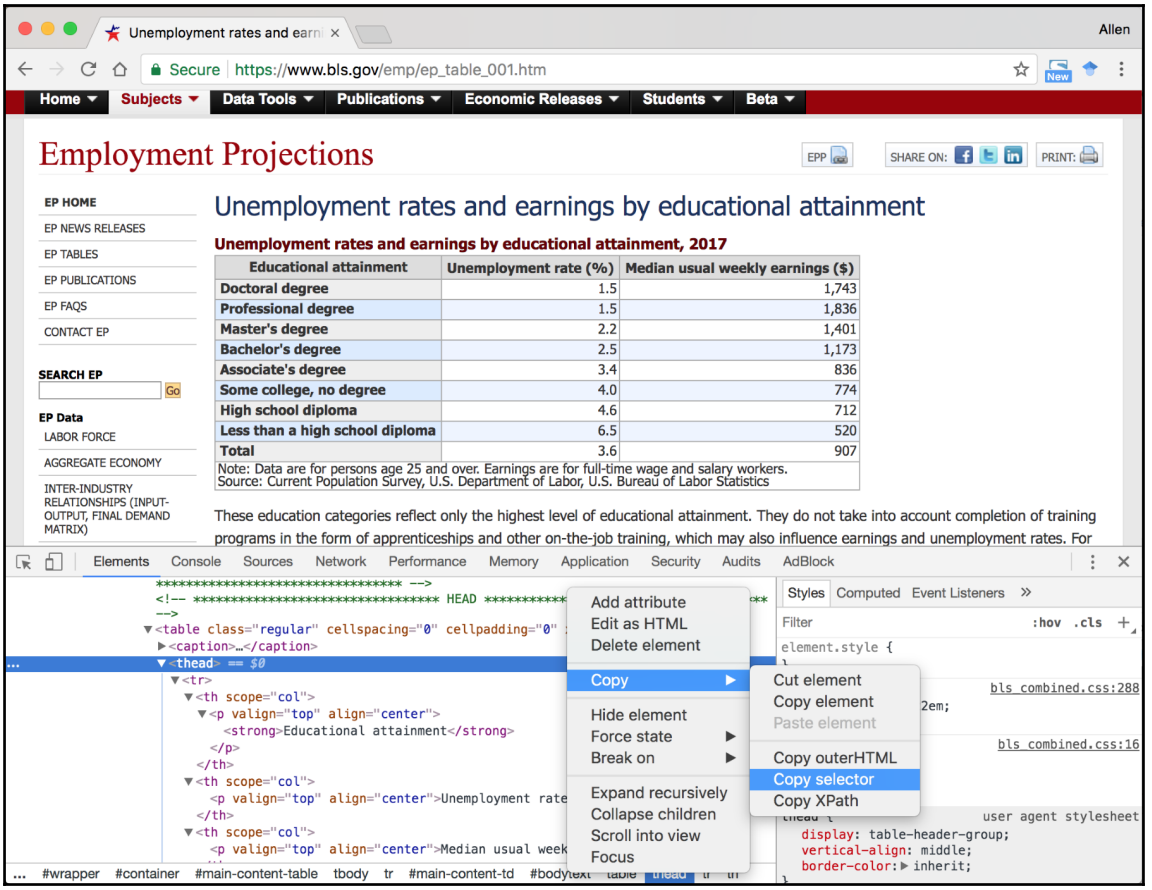
INTER-INDUSTRY RELATIONSHIPS (INPUT-OUTPUT, FINAL DEMAND MATRIX)
table.regular | 573×227
rates and earnings by educational attainment
Unemployment rates and earnings by educational attainment, 2017
Educational attainment | Unemployment rate (%) | Median usual weekly earnings ($)
Doctoral degree | 1.5 | 1,743
Professional degree | 1.5 | 1,836
Master's degree | 2.2 | 1,401
Bachelor's degree | 2.5 | 1,173
Associate's degree | 3.4 | 836
Some college, no degree | 4.0 | 774
High school diploma | 4.6 | 712
Less than a high school diploma | 6.5 | 520
Total | 3.6 | 907
Note: Data are for persons age 25 and over. Earnings are for full-time wage and salary workers.
Source: Current Population Survey, U.S. Department of Labor, U.S. Bureau of Labor Statistics
These education categories reflect only the highest level of educational attainment. They do not take into account completion of training programs in the form of apprenticeships and other on-the-job training, which may also influence earnings and unemployment rates. For
Elements
Console
Sources
Network
Performance
Memory
Application
Security
Audits
AdBlock
 == $0
<!-- 2COL LAYOUT COL2 END -->
<!--no_index_end-->
<!-- MAIN CONTENT BEGIN -->
<h1>Unemployment rates and earnings by educational attainment</h1>
<table class="regular" cellspacing="0" cellpadding="0" xborder="1">…</table>

…
<!-- TwoColFoot Begin -->
<!--no_index_start-->
#wrapper
#container
#main-content-table
tbody
tr
#main-content-td
div#bodytext.verdana.md
Styles
Computed
Event Listeners
Filter
:hov
.cls
element.style {
}
.md {
font-size: 100%;
}
bls_combined.css:1268
body * {
line-height: 1.22em;
}
bls_combined.css:288
* {
padding: 0;
margin: 0;
}
bls_combined.css:16
div {
user agent stylesheet


Unemployment rates and earni
Allen
Secure | https://www.bls.gov/emp/ep_table_001.htm
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Unemployment rates and earnings by educational attainment
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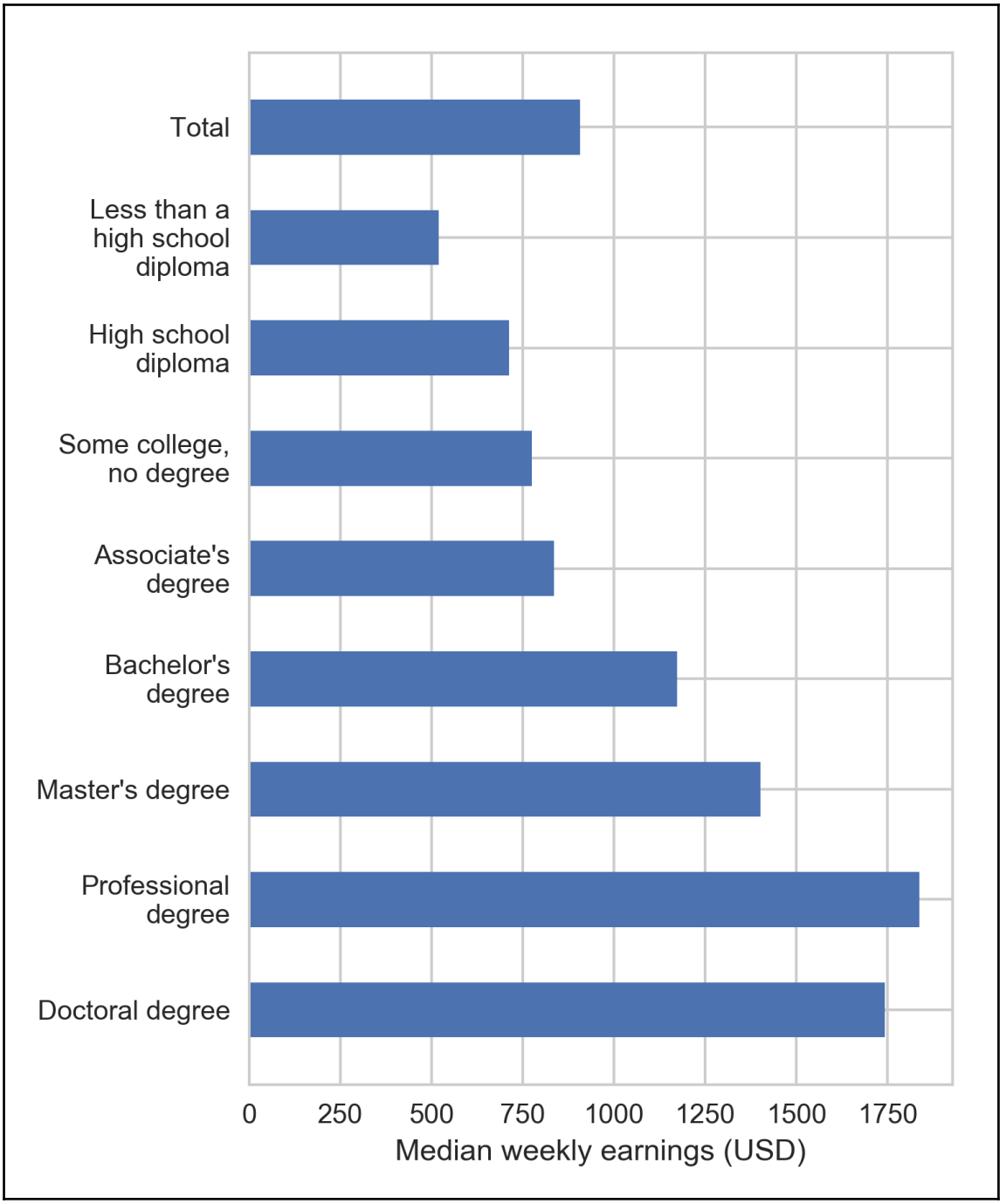
Source: Current Population Survey, U.S. Department of Labor, U.S. Bureau of Labor Statistics
These education categories reflect only the highest level of educational attainment. They do not take into account completion of training programs in the form of apprenticeships and other on-the-job training, which may also influence earnings and unemployment rates. For
Elements
Console
Sources
Network
Performance
Memory
Application
Security
Audits
AdBlock
Add attribute
Edit as HTML
Delete element
Copy
Hide element
Force state
Break on
Expand recursively
Collapse children
Scroll into view
Focus
Cut element
Copy element
Paste element
Copy outerHTML
Copy selector
Copy XPath
Styles
Computed
Event Listeners
Filter
:hov .cls
element.style {
bls_combined.css:288
bls_combined.css:16
user agent stylesheet
display: table-header-group;
vertical-align: middle;
border-color: inherit;
#wrapper
#container
#main-content-table
tbody
tr
#main-content-td


Total
Less than a high school diploma
High school diploma
Some college, no degree
Associate's degree
Bachelor's degree
Master's degree
Professional degree
Doctoral degree
0
250
500
750
1000
1250
1500
1750
Median weekly earnings (USD)

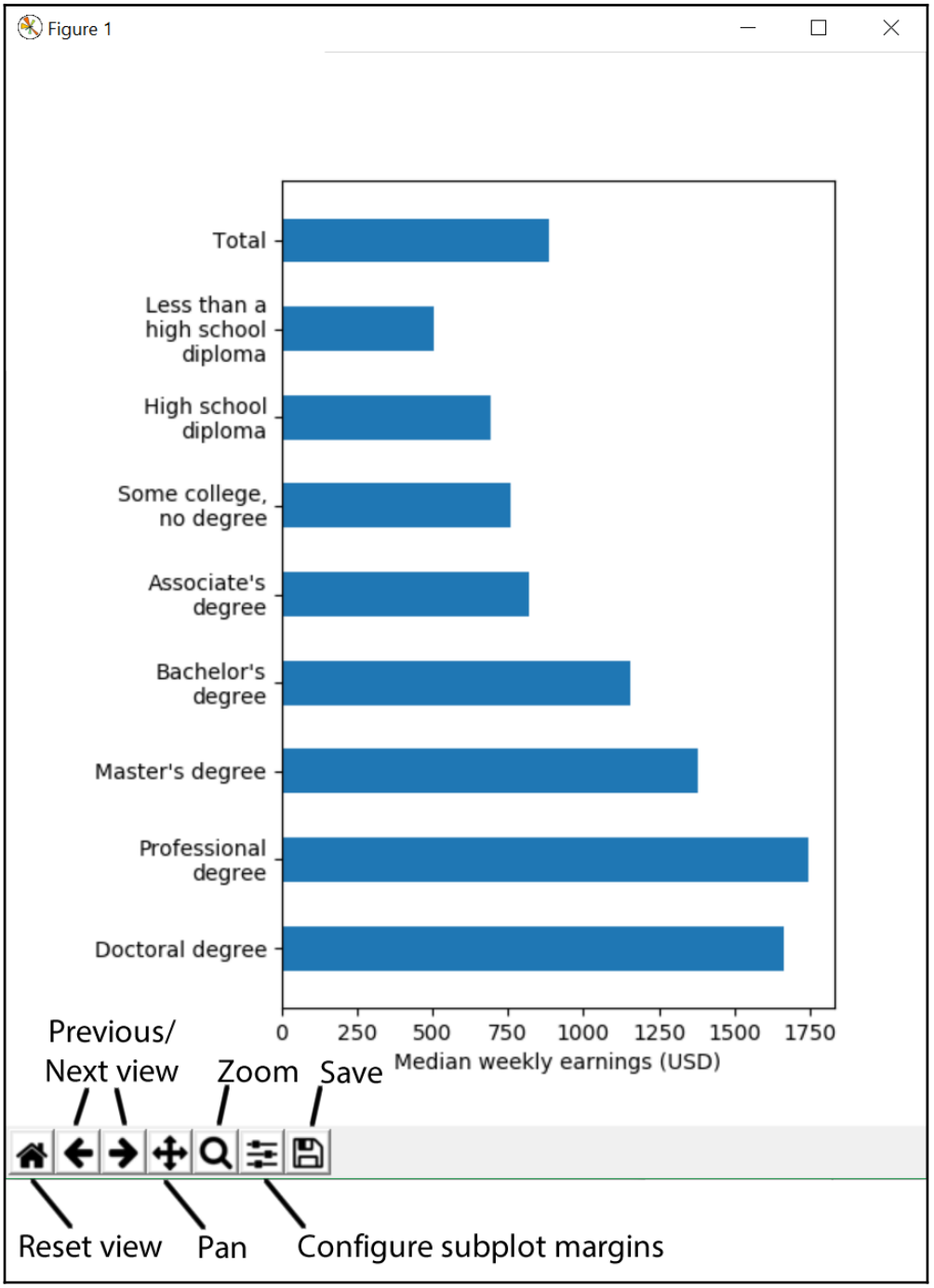


Figure 1
Total
Less than a high school diploma
High school diploma
Some college, no degree
Associate's degree
Bachelor's degree
Master's degree
Professional degree
Doctoral degree
0
250
500
750
1000
1250
1500
1750
Median weekly earnings (USD)
Previous/ Next view
Zoom
Save
Reset view
Pan
Configure subplot margins

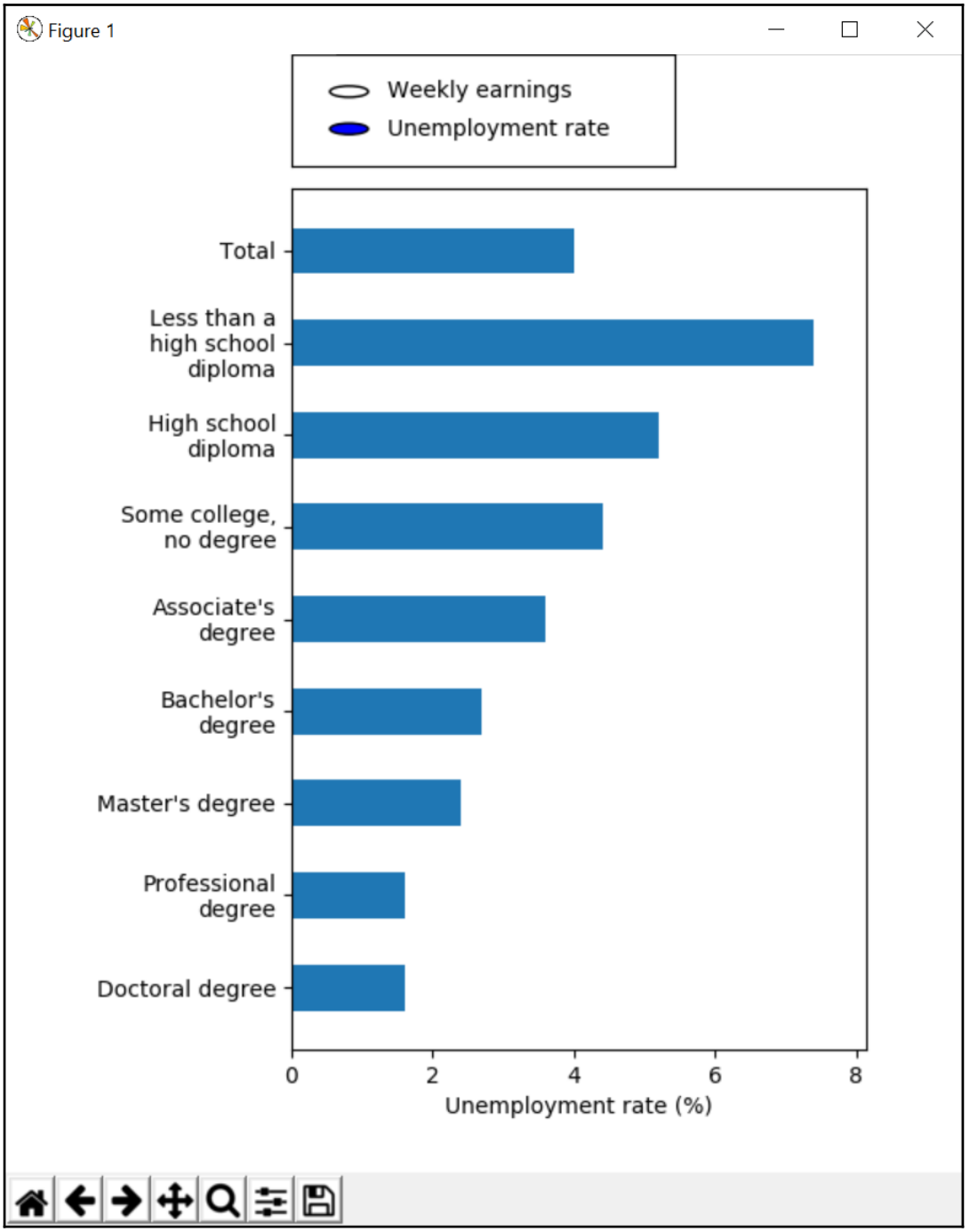


Figure 1
Weekly earnings
Unemployment rate
Total
Less than a high school diploma
High school diploma
Some college, no degree
Associate's degree
Bachelor's degree
Master's degree
Professional degree
Doctoral degree
0
2
4
6
8
Unemployment rate (%)

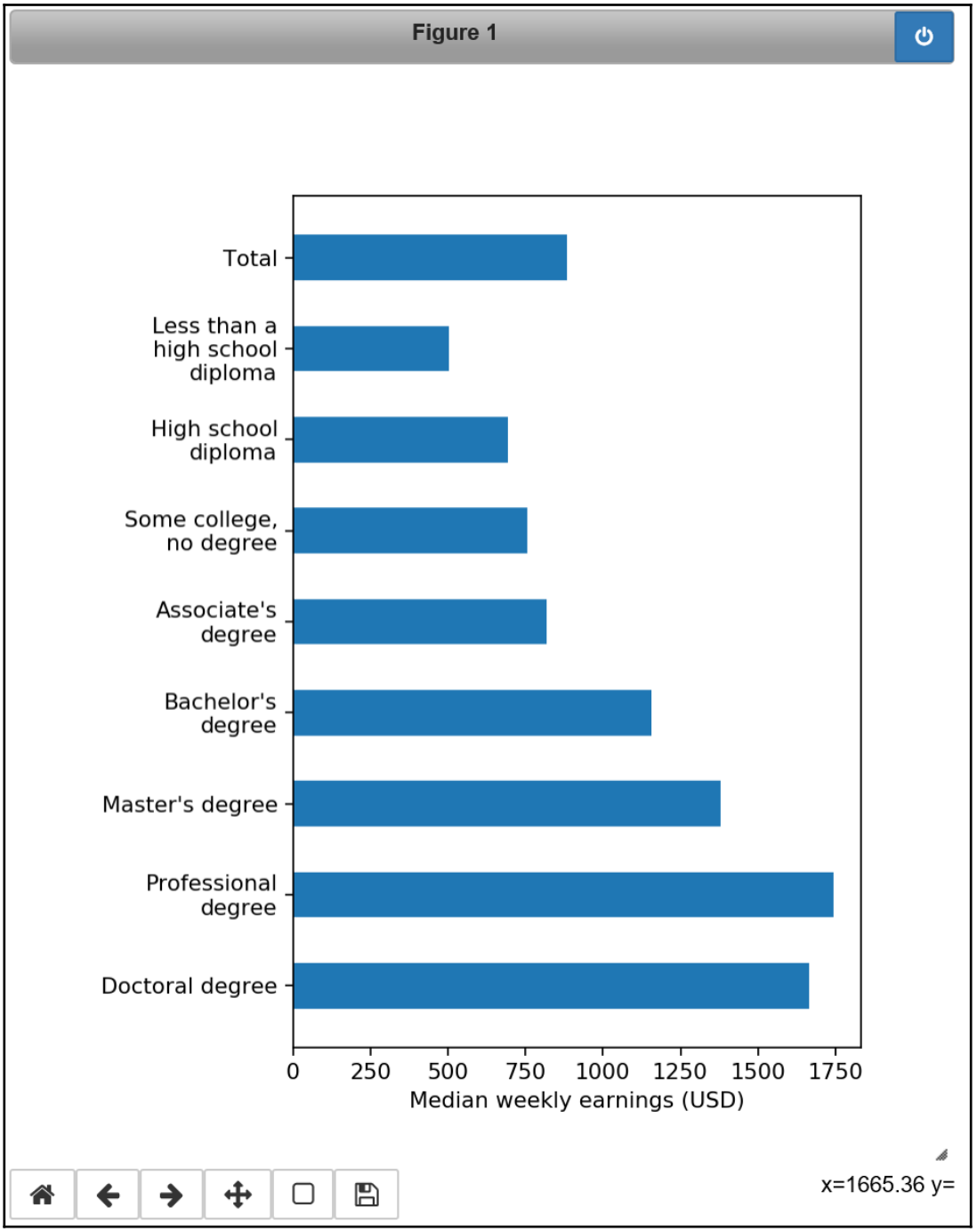


Figure 1
Total
Less than a high school diploma
High school diploma
Some college, no degree
Associate's degree
Bachelor's degree
Master's degree
Professional degree
Doctoral degree
0
250
500
750
1000
1250
1500
1750
Median weekly earnings (USD)
x=1665.36 y=

Chapter 10: Integrating Data Visualization into the Workflow

```
print(digits)
```

```
{'data': array([[ 0.,  0.,  5., ...,  0.,  0.,  0.],
       [ 0.,  0.,  0., ..., 10.,  0.,  0.],
       [ 0.,  0.,  0., ..., 16.,  9.,  0.],
       ...,
       [ 0.,  0.,  1., ...,  6.,  0.,  0.],
       [ 0.,  0.,  2., ..., 12.,  0.,  0.],
       [ 0.,  0., 10., ..., 12.,  1.,  0.]]), 'target': array([0, 1, 2, ..., 8,
9, 8]), 'target_names': array([0, 1, 2, 3, 4, 5, 6, 7, 8, 9]), 'images': array
([[[ 0.,  0.,  5., ...,  1.,  0.,  0.],
        [ 0.,  0., 13., ..., 15.,  5.,  0.],
        [ 0.,  3., 15., ..., 11.,  8.,  0.],
        ...,
        [ 0.,  4., 11., ..., 12.,  7.,  0.],
        [ 0.,  2., 14., ..., 12.,  0.,  0.],
        [ 0.,  0.,  6., ...,  0.,  0.,  0.]],

       [[ 0.,  0.,  0., ...,  5.,  0.,  0.],
        [ 0.,  0.,  0., ...,  9.,  0.,  0.],
        [ 0.,  0.,  3., ...,  6.,  0.,  0.],
        ...,
        [ 0.,  0.,  1., ...,  6.,  0.,  0.],
        [ 0.,  0.,  1., ...,  6.,  0.,  0.],
        [ 0.,  0.,  0., ..., 10.,  0.,  0.]],
```

```
        ...,
        [ 0.,  4., 16., ..., 16.,  6.,  0.],
        [ 0.,  8., 16., ..., 16.,  8.,  0.],
        [ 0.,  1.,  8., ..., 12.,  1.,  0.]]]), 'DESCR': "Optical Recognition of
Handwritten Digits Data Set\n===================================================
\n\nNotes\n-----\nData Set Characteristics:\n    :Number of Instances: 5620\n
:Number of Attributes: 64\n    :Attribute Information: 8x8 image of integer pixel
s in the range 0..16.\n    :Missing Attribute Values: None\n    :Creator: E. Alpa
ydin (alpaydin '@' boun.edu.tr)\n    :Date: July; 1998\n\nThis is a copy of the t
est set of the UCI ML hand-written digits datasets\nhttp://archive.ics.uci.edu/m
l/datasets/Optical+Recognition+of+Handwritten+Digits\n\nThe data set contains ima
ges of hand-written digits: 10 classes where\neach class refers to a digit.\n\nPr
eprocessing programs made available by NIST were used to extract\nnormalized bitm
aps of handwritten digits from a preprinted form. From a\ntotal of 43 people, 30
contributed to the training set and different 13\nto the test set. 32x32 bitmaps
are divided into nonoverlapping blocks of\n4x4 and the number of on pixels are co
unted in each block. This generates\nan input matrix of 8x8 where each element is
an integer in the range\n0..16. This reduces dimensionality and gives invariance
to small\ndistortions.\n\nFor info on NIST preprocessing routines, see M. D. Garr
is, J. L. Blue, G.\nT. Candela, D. L. Dimmick, J. Geist, P. J. Grother, S. A. Jan
et, and C.\nL. Wilson, NIST Form-Based Handprint Recognition System, NISTIR 546
9,\n1994.\n\nReferences\n----------\n  - C. Kaynak (1995) Methods of Combining Mu
ltiple Classifiers and Their\n    Applications to Handwritten Digit Recognition,
MSc Thesis, Institute of\n    Graduate Studies in Science and Engineering, Bogazi
ci University.\n  - E. Alpaydin, C. Kaynak (1998) Cascading Classifiers, Kybernet
ika.\n  - Ken Tang and Ponnuthurai N. Suganthan and Xi Yao and A. Kai Qin.\n    L
inear dimensionalityreduction using relevance weighted LDA. School of\n    Electr
ical and Electronic Engineering Nanyang Technological University.\n    2005.\n  -
Claudio Gentile. A New Approximate Maximal Margin Classification\n    Algorithm.
NIPS. 2000.\n"}
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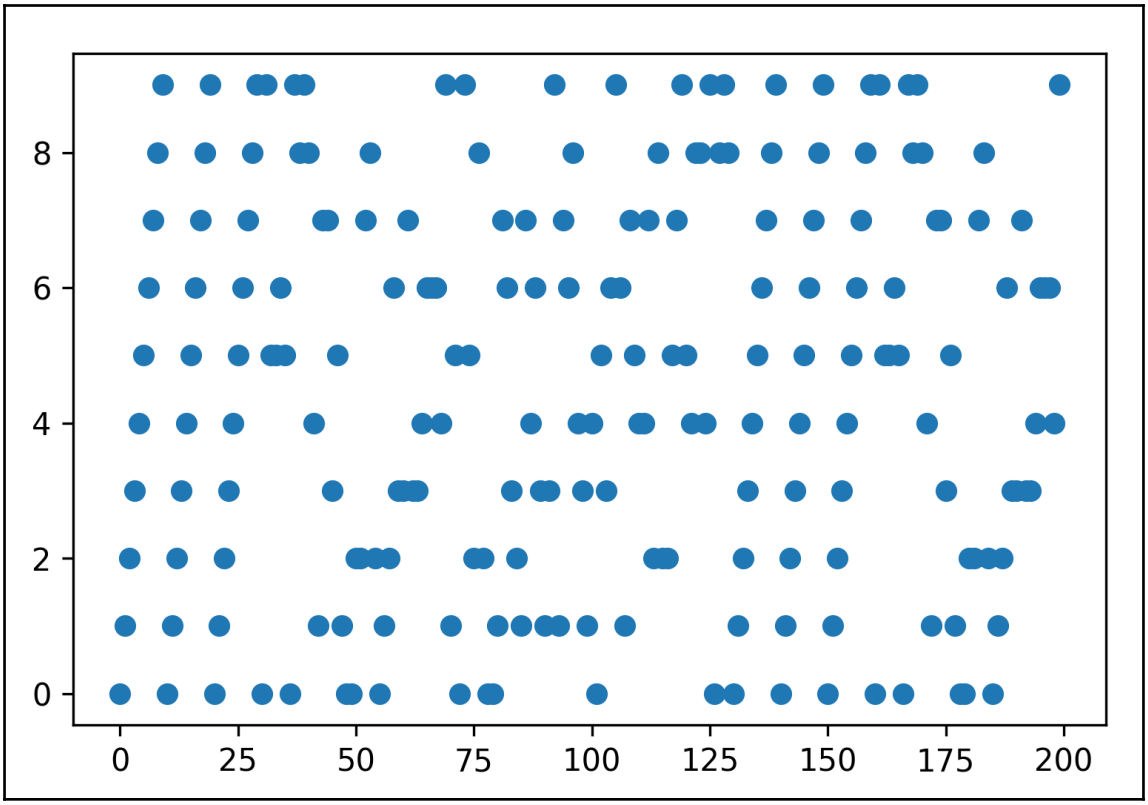
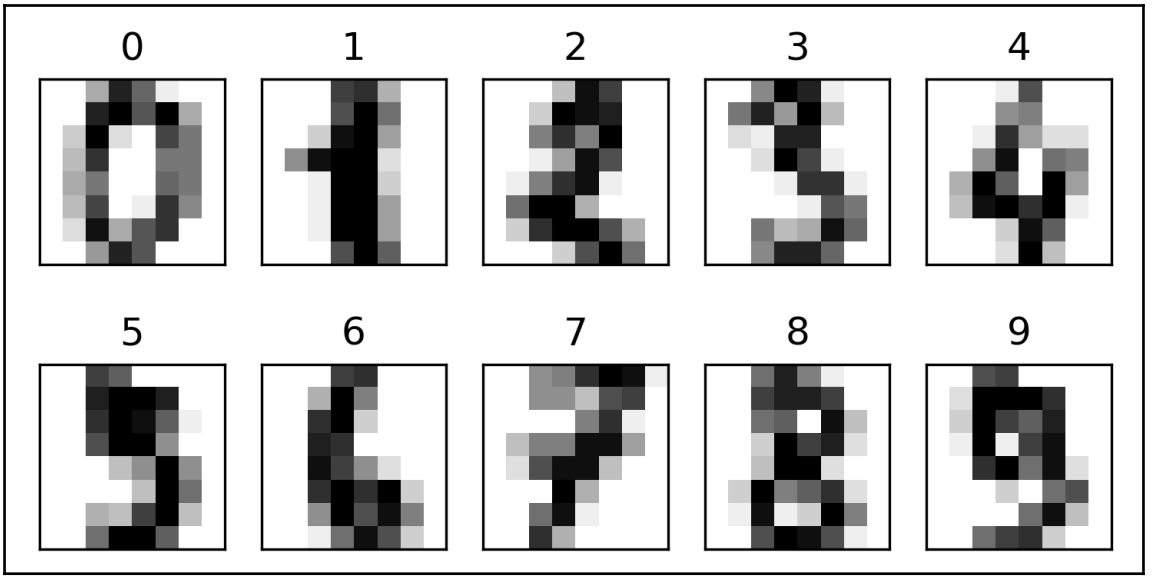
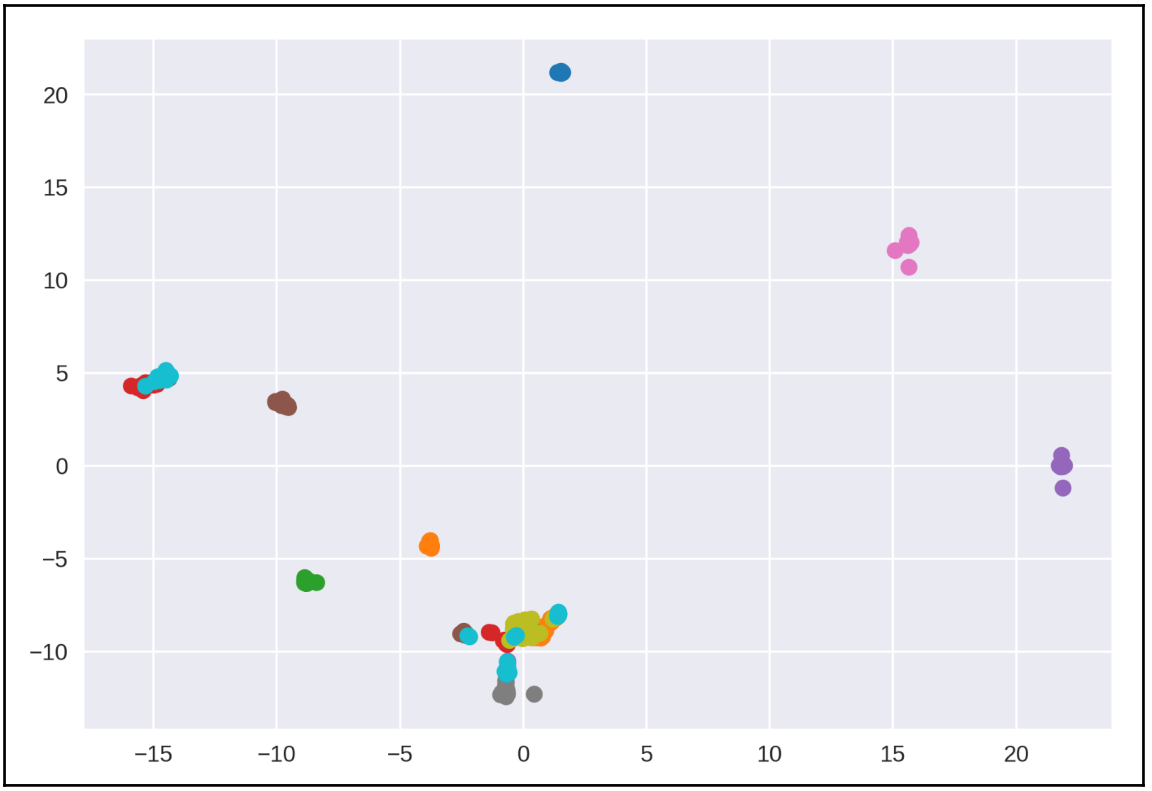
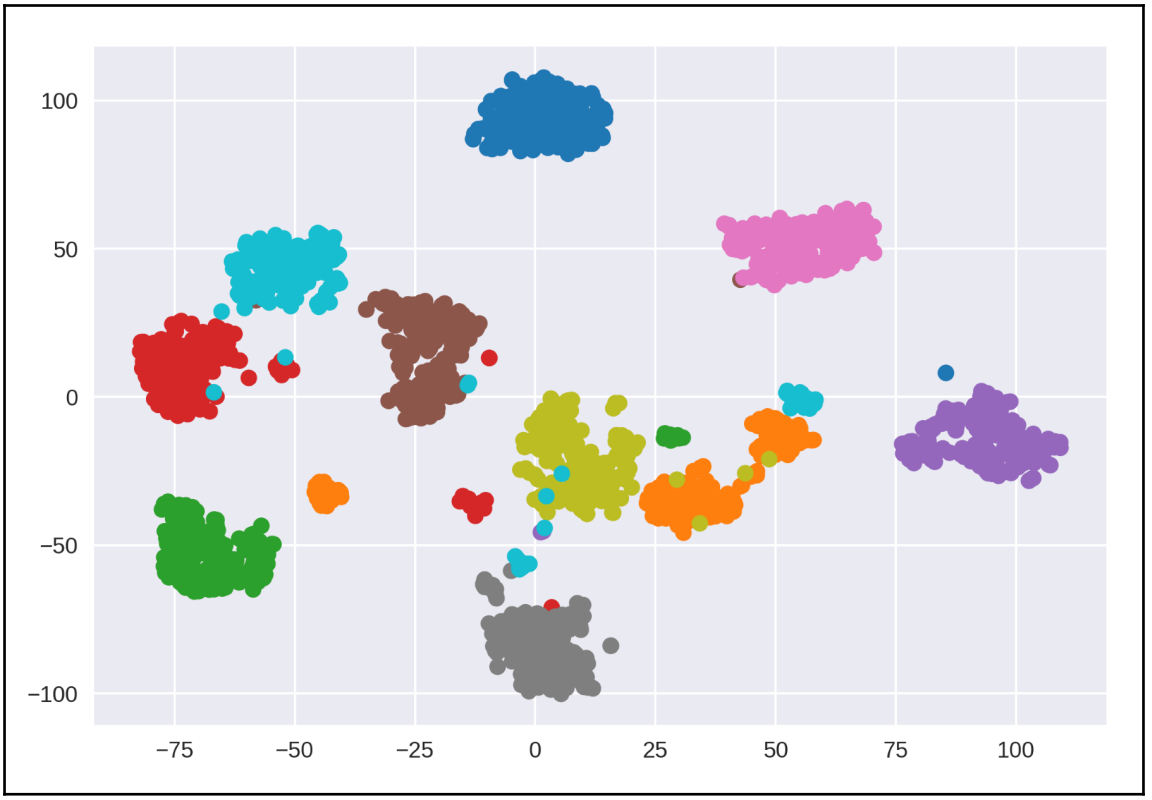
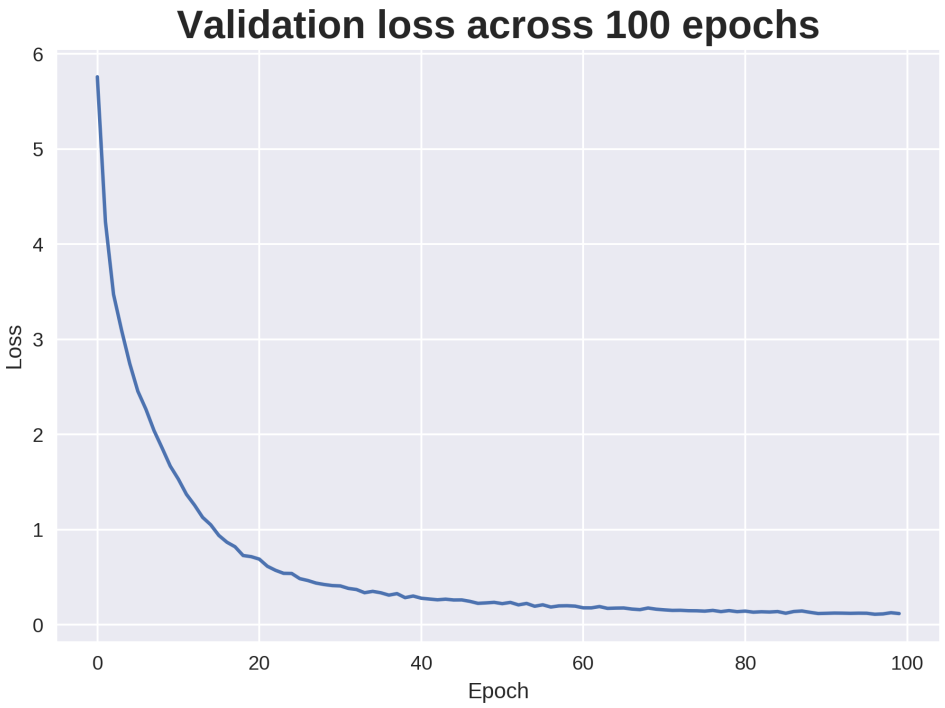

8
6
4
2
0
0
25
50
75
100
125
150
175
200

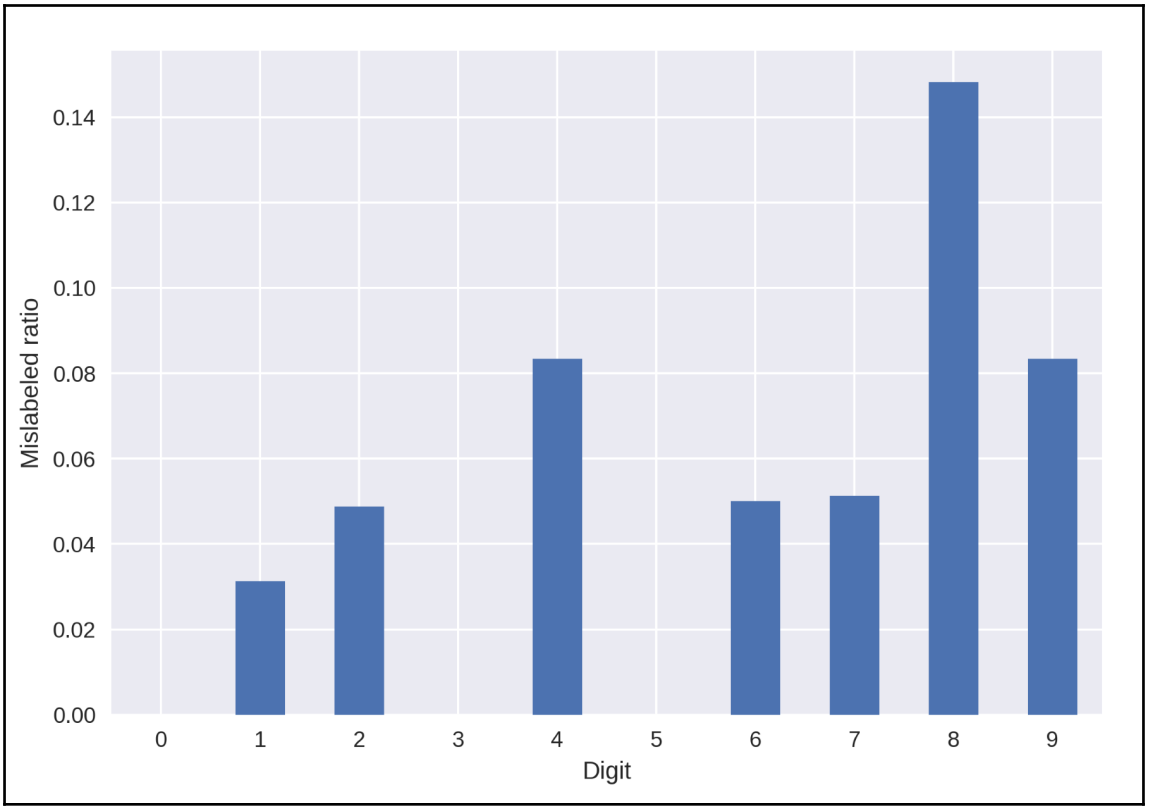

0
1
2
3
4
5
6
7
8
9

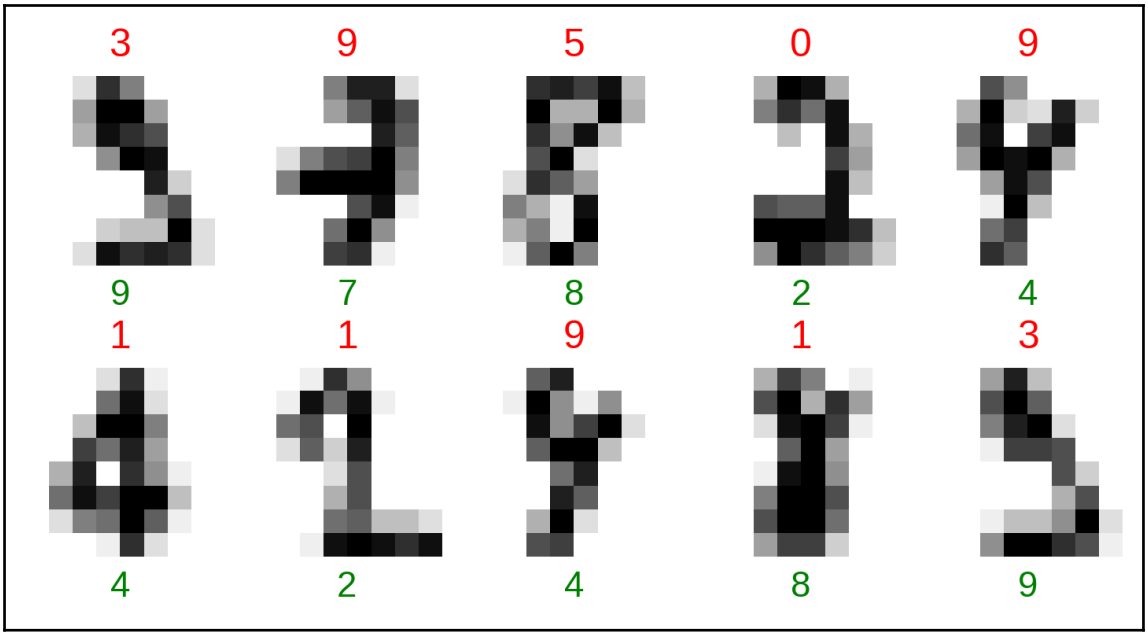

20
15
10
5
0
−5
−10
−15
−10
−5
0
5
10
15
20


100
50
0
−50
−100
−75
−50
−25
0
25
50
75
100


Validation loss across 100 epochs
Loss
Epoch
0
1
2
3
4
5
6
0
20
40
60
80
100


Accuracy loss across 100 epochs
1.0
0.8
0.6
0.4
0.2
Accuracy
0
20
40
60
80
100
Epoch


0.14
0.12
0.10
0.08
0.06
0.04
0.02
0.00
Mislabeled ratio
0
1
2
3
4
5
6
7
8
9
Digit


3
9
5
0
9
9
7
8
2
4
1
1
9
1
3
4
2
4
8
9