Data Viz Crash Course

In [1]:
```
import numpy as np
import pandas as pd
import matplotlib.pyplot as plt
```

For Jupyter Notebooks Only

In [4]:
```
%matplotlib inline
```

For other IDES use plt.show() after your plot commands

In [5]:
```
x = np.arange(0,10)
```

In [6]:
```
y = x**2
```

In [7]:
```
x
```

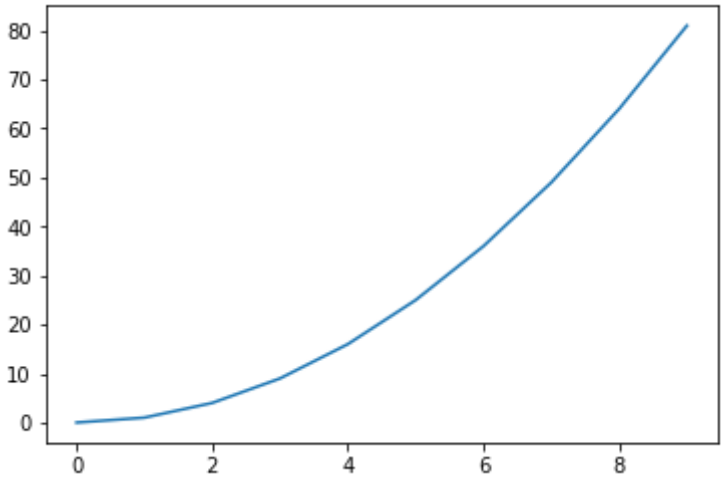
Out[7]:
```
array([0, 1, 2, 3, 4, 5, 6, 7, 8, 9])
```

In [8]:
```
y
```

Out[8]:
```
array([ 0,  1,  4,  9, 16, 25, 36, 49, 64, 81], dtype=int32)
```

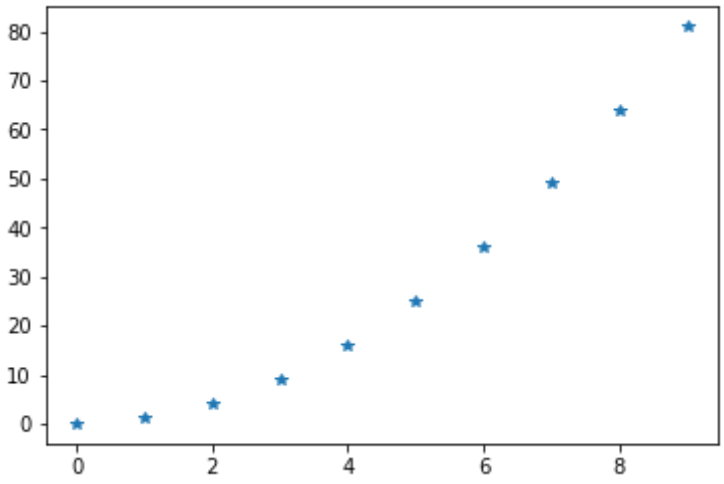
In [9]:
```
plt.plot(x,y)
```

Out[9]:
```
[<matplotlib.lines.Line2D at 0x1c04fae6e48>]
```



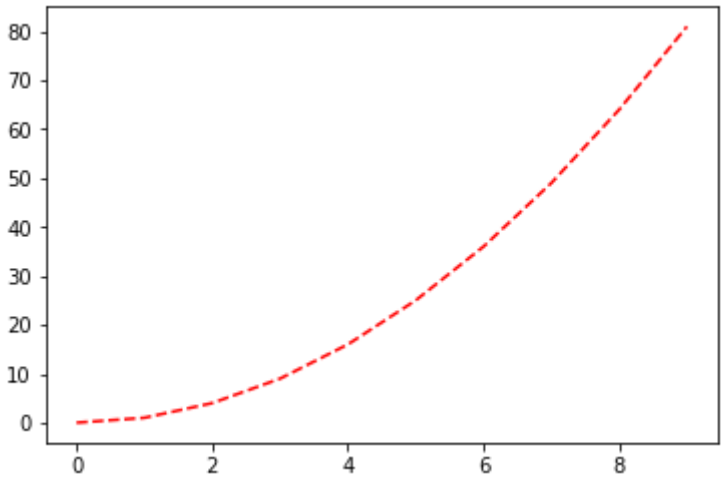
In [10]:
```
plt.plot(x,y,'*')
```

Out[10]:
```
[<matplotlib.lines.Line2D at 0x1c04fb800f0>]
```



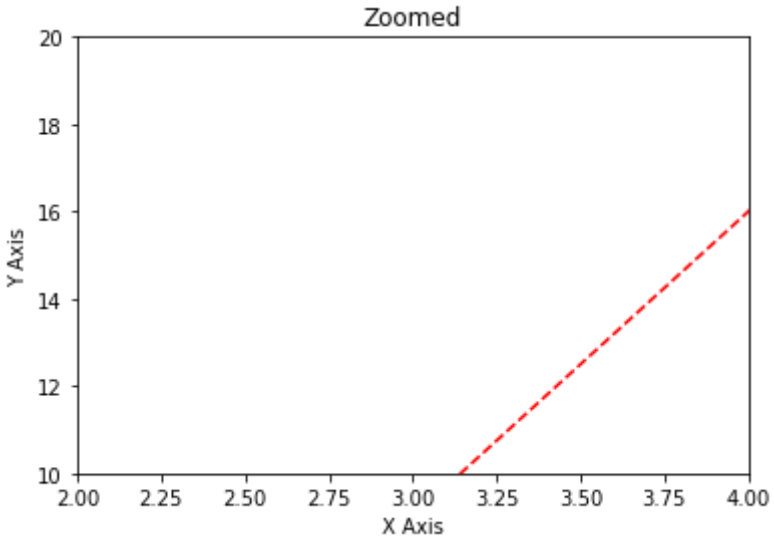
In [30]:
```
plt.plot(x,y,'r--')
```

Out[30]:
```
[<matplotlib.lines.Line2D at 0x1c052b6a898>]
```



In [37]:
```
plt.plot(x,y,'r--')
plt.xlim(2,4)
plt.ylim(10,20)
plt.title("Zoomed")
plt.xlabel("X Axis")
plt.ylabel("Y Axis")
```

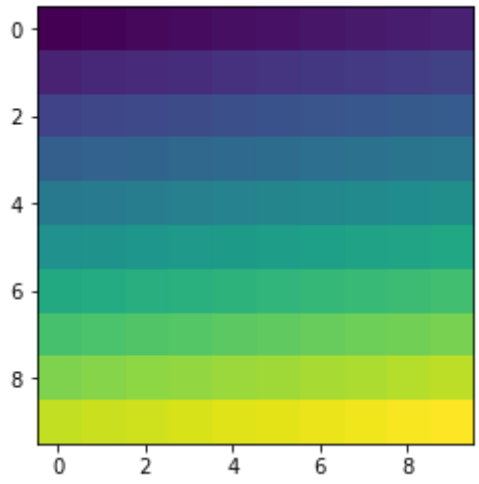
Out[37]: <matplotlib.text.Text at 0x1c052ef2eb8>



In [20]:
```
mat = np.arange(0,100).reshape(10,10)
```

In [22]:
```
plt.imshow(mat)
```

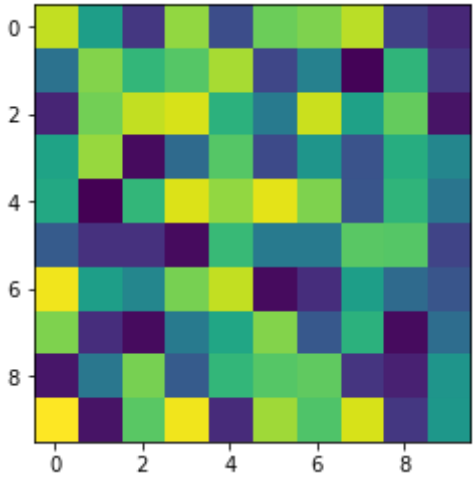
Out[22]: <matplotlib.image.AxesImage at 0x1c05120fb70>



In [23]:
```
mat = np.random.randint(0,100,(10,10))
```

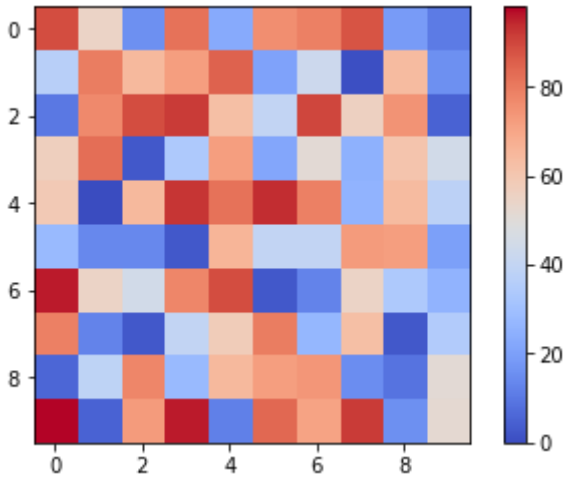
In [27]:
```
plt.imshow(mat)
```

Out[27]: <matplotlib.image.AxesImage at 0x1c05284df28>



In [29]:
```
plt.imshow(mat,cmap='coolwarm')
plt.colorbar()
```

Out[29]: <matplotlib.colorbar.Colorbar at 0x1c052aac198>



In [ ]:
```

```

Pandas Plotting

In [12]:
```
df = pd.read_csv('salaries.csv')
```

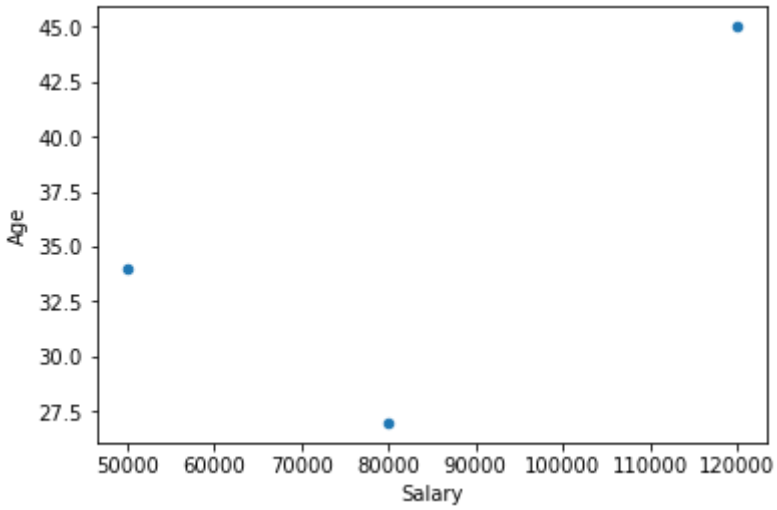
In [13]:
```
df
```

Out[13]:

	Name	Salary	Age
0	John	50000	34
1	Sally	120000	45
2	Alyssa	80000	27

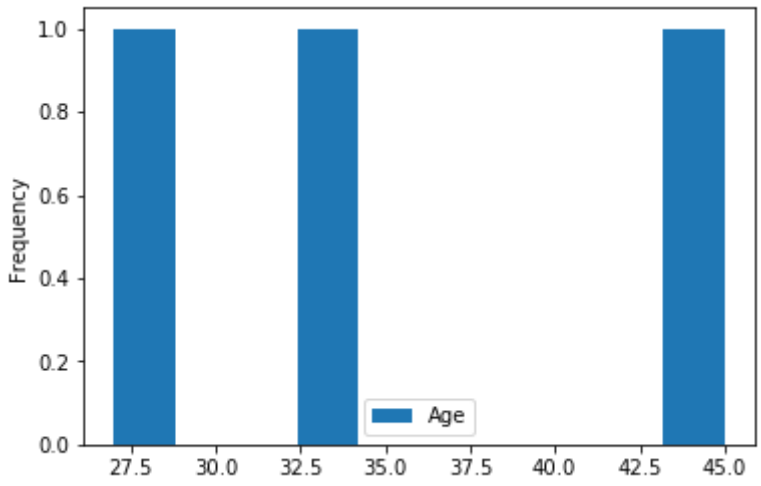
In [15]:
```
df.plot(x='Salary',y='Age',kind='scatter')
```

Out[15]: <matplotlib.axes._subplots.AxesSubplot at 0x1c04f8b7dd8>



In [17]:
```
df.plot(x='Salary',kind='hist')
```

Out[17]: <matplotlib.axes._subplots.AxesSubplot at 0x1c0510451d0>



In [ ]:
```

```