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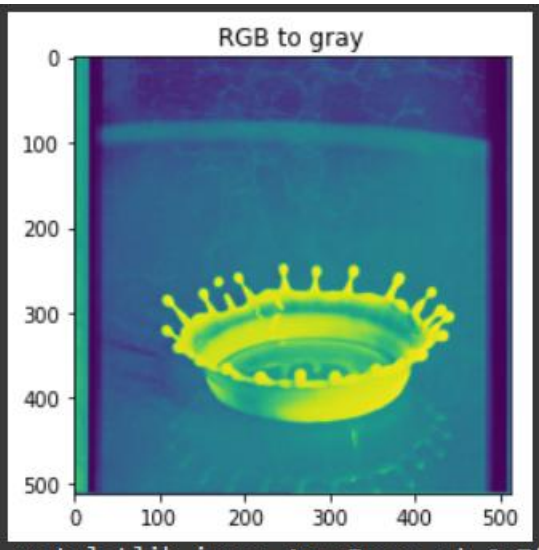
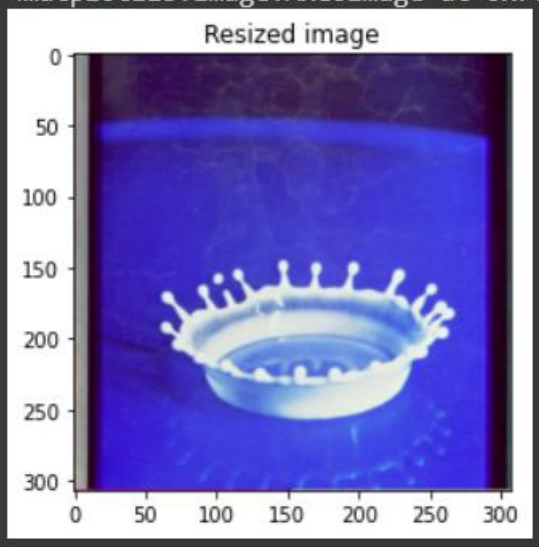
Course : CSL5402

Lab 3 Assignment

```
1.WAP to read, resizethe image data and change image from
 RGB to gray, and gray toRGB.

import matplotlib.pyplot as plt
import cv2

image =cv2.imread('/content/image1.tiff')
gray_im = cv2.cvtColor(image, cv2.COLOR_BGR2GRAY)
plt.imshow(gray_im)
plt.title('RGB to gray')
plt.show()
#---------RESIZE----------
scale_percent = 60 # percent of original size
width = int(image.shape[1] * scale_percent / 100)
height = int(image.shape[0] * scale_percent / 100)
dim = (width, height)


resized = cv2.resize(image, dim, interpolation = cv2.INTE
R_AREA)
plt.title('Resized image')
plt.imshow(resized)
```




```
<matplotlib.image.AxesImage at 0x7fbb5d3adcd0>
```




```
2.WAP to read,remove all the null values from employees.csv file and sort the data in descending order

import pandas as pd
import csv

df=pd.read_csv("/content/employees.csv")
df_new=df.dropna()
s=df_new.sort_values(by=['First Name'],ascending=False)
```

```
s.to_csv("sorted.csv")
print(s)
```

```
     First Name Gender  Start Date  ... Bonus %  Senior Management            Team
204      Willie   Male    6/6/2006  ...   4.935               True       Marketing
112      Willie   Male  11/27/2003  ...   4.023              False       Marketing
175      Willie   Male   2/17/1998  ...   1.451               True     Engineering
450      Willie   Male   8/22/2009  ...  19.691              False           Legal
652      Willie   Male   12/5/2009  ...   1.017               True     Engineering
..          ...    ...         ...  ...     ...                ...             ...
302        Adam   Male    7/5/2007  ...   5.027               True  Human Resources
538        Adam   Male   10/8/2010  ...   3.491              False  Human Resources
101       Aaron   Male   2/17/2012  ...  11.849               True       Marketing
440       Aaron   Male   7/22/1990  ...  11.343               True  Client Services
327       Aaron   Male   1/29/1994  ...   5.097               True       Marketing

[764 rows x 8 columns]
```

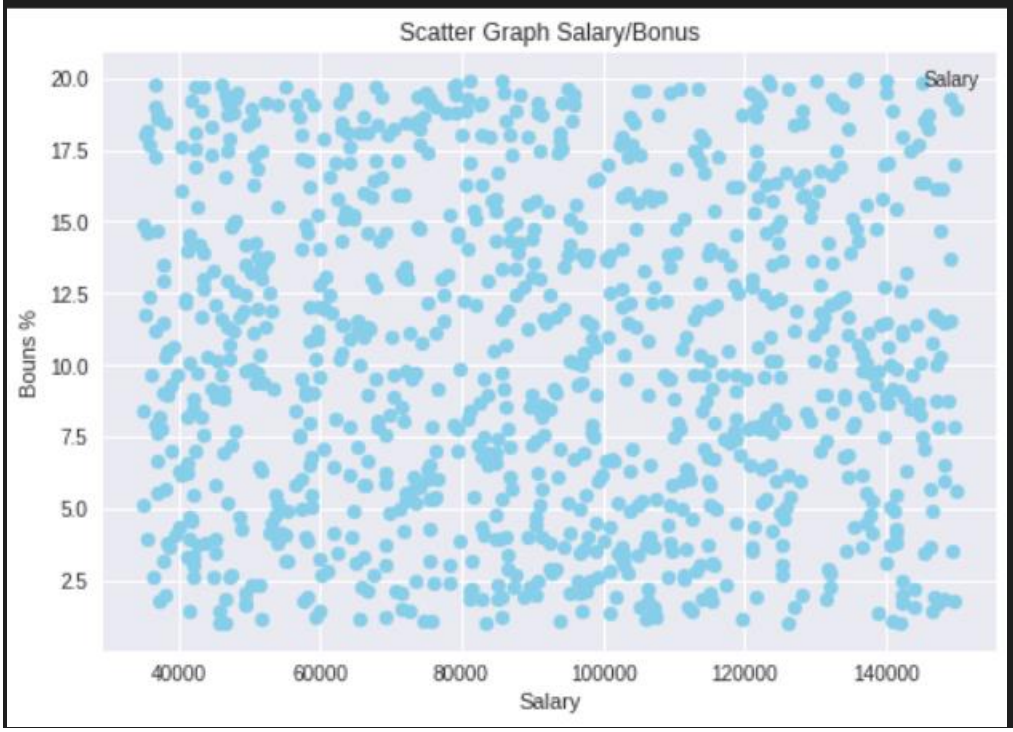
3.WAP for reset the index value and remove index column from reset value on employees.csv file.

```
df.reset_index(inplace=True,drop=True)

df.head()
```

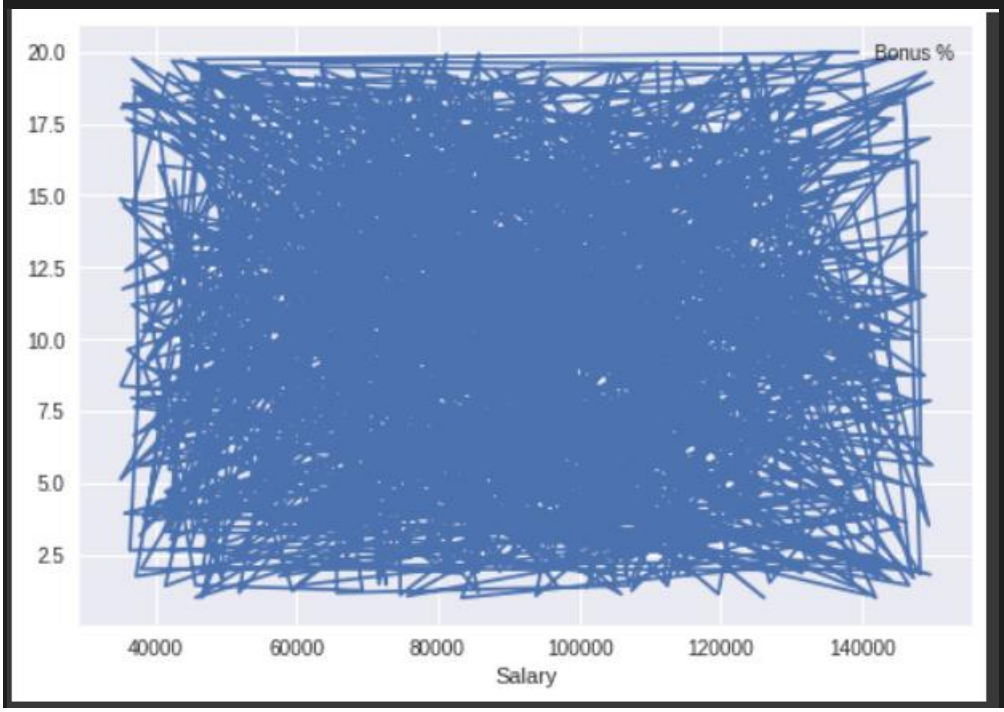
	First Name	Gender	Start Date	Last Login Time	Salary	Bonus %	Senior Management	Team
0	Douglas	Male	8/6/1993	12:42 PM	97308	6.945	True	Marketing
1	Thomas	Male	3/31/1996	6:53 AM	61933	4.170	True	NaN
2	Maria	Female	4/23/1993	11:17 AM	130590	11.858	False	Finance
3	Jerry	Male	3/4/2005	1:00 PM	138705	9.340	True	Finance
4	Larry	Male	1/24/1998	4:47 PM	101004	1.389	True	Client Services

4.Draw a histogram, scatter graph, line graph between Salary and Bonus from employees.csv file.

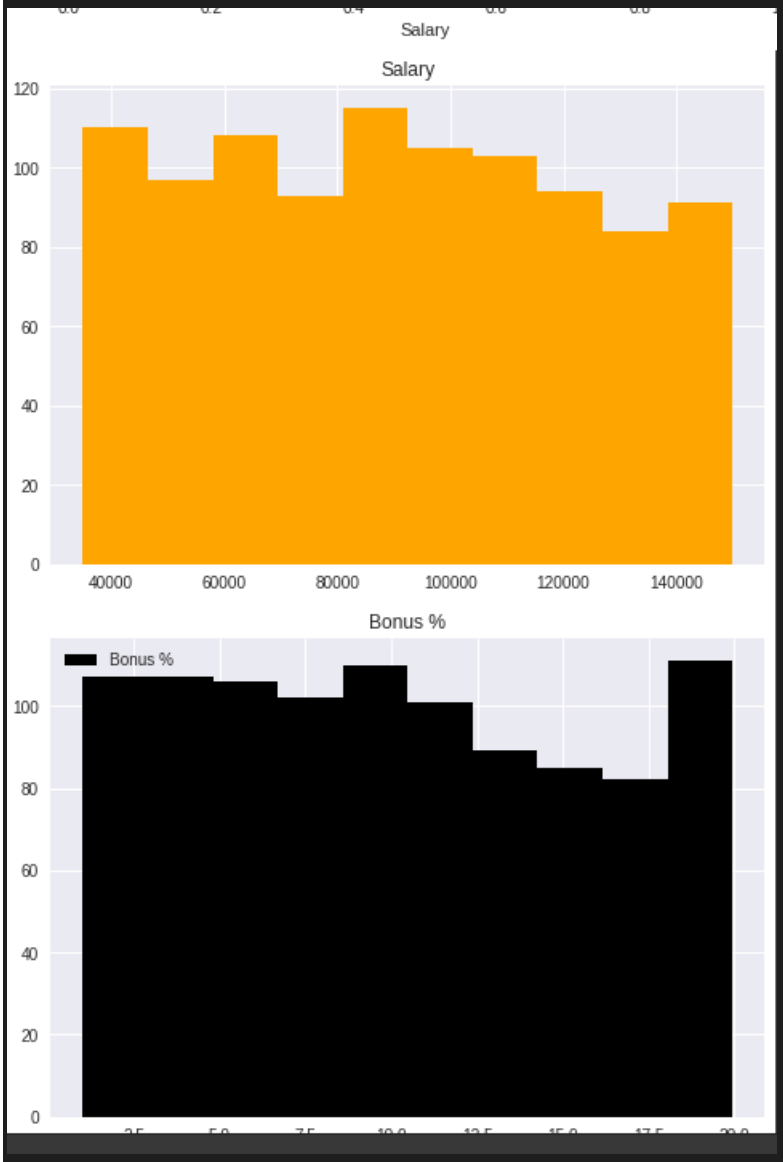
```
import pandas as pd
import matplotlib.pyplot as plt

data =pd.read_csv('/content/employees.csv')

x=data['Salary']
y=data['Bonus %']

plt.style.use('seaborn')

plt.scatter(x,y,color='skyblue',label='Salary',marker='o'
)
plt.xlabel('Salary')
plt.ylabel('Bouns %')
plt.legend()
plt.title('Scatter Graph Salary/Bonus')
plt.show()
```



```
plt.xlabel('Salary')
plt.ylabel('Bouns %')
line=df.plot.line(x='Salary',y='Bonus %')
print(line)
```




```
plt.xlabel('Salary')
plt.ylabel('Bouns %')
plt.title('Histogram Graph Salary/Bonus')
hist1=df.hist(column='Salary',color='orange',label='Salar
y')
hist2=df.hist(column='Bonus %',color='black',label='Bonus
 %')
plt.legend()
```



End of Assignment