ASSIGNMENT DAY 10

1. There is a significant relationship between Gender and Attrition.

2. More than 50% of the employees who left the company had Job Level either 1 or 2.

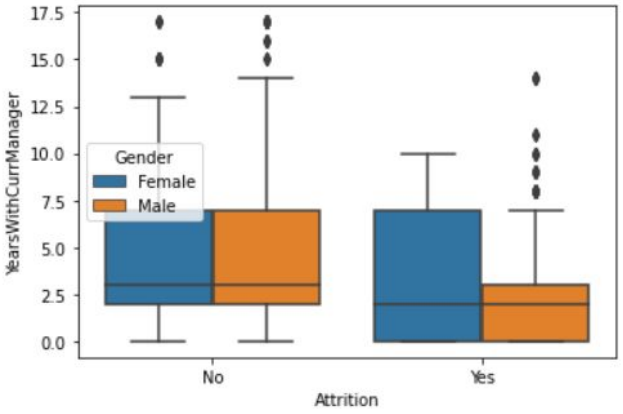
```
atr_yes['JobLevel'].value_counts()
```

```
2    283
1    250
3     96
4     51
5     25
Name: JobLevel, dtype: int64
```

3. More than 40% of the female employees who left the company worked a greater number of years under the current manager.

```
sns.boxplot(x='Attrition',y='YearsWithCurrManager',data=df1,hue='Gender')
```

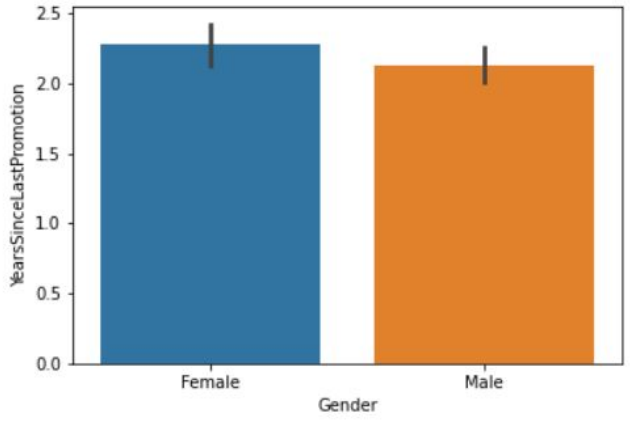
```
<matplotlib.axes._subplots.AxesSubplot at 0x219b72100b8>
```



4. A greater number of female employees had more gaps between the present year and the year of last promotion.

```
sns.barplot(x='Gender',y='YearsSinceLastPromotion',data=df1)
```

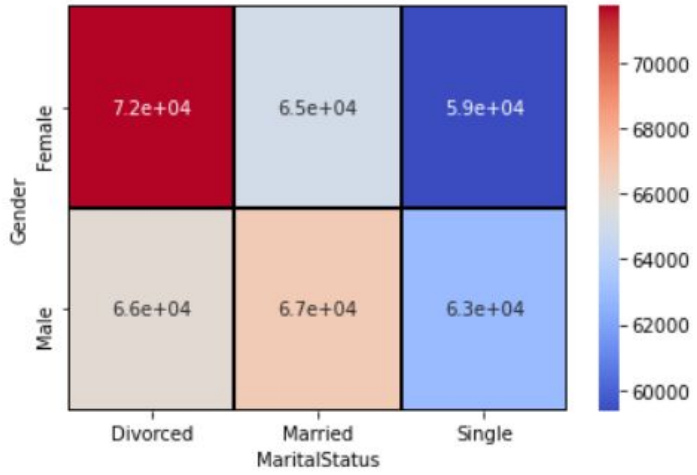
```
<matplotlib.axes._subplots.AxesSubplot at 0x219a2d5dcc0>
```



5. The monthly income of divorced females was greater than the monthly income of divorced male.

```
fp=df1.pivot_table(index='Gender',columns='MaritalStatus',values='MonthlyIncome')
sns.heatmap(fp,annot=True,cmap='coolwarm',linecolor='black',linewidth=1)
```

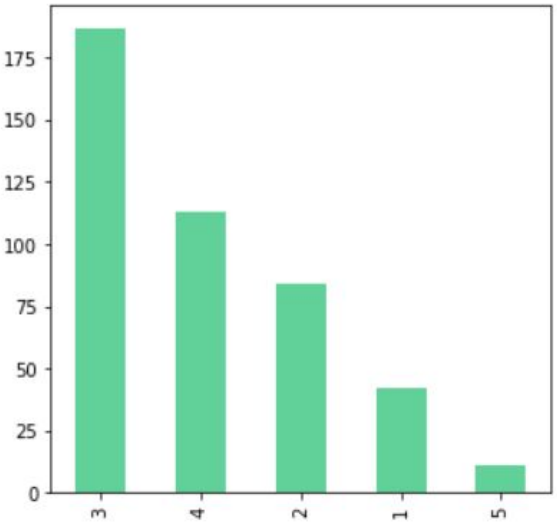
```
<matplotlib.axes._subplots.AxesSubplot at 0x219b73a27f0>
```



6. More than 50% of male employees who left the company had education of either ‘Bachelor’ or ‘Masters’.

```
male_yes['Education'].value_counts().plot(kind="bar", figsize=(5,5), color="#61d199")
```

```
<matplotlib.axes._subplots.AxesSubplot at 0x219b74ce780>
```



7. The mean age of all employees is 40.
8. There is a correlation between Years with the current manager and years at company.

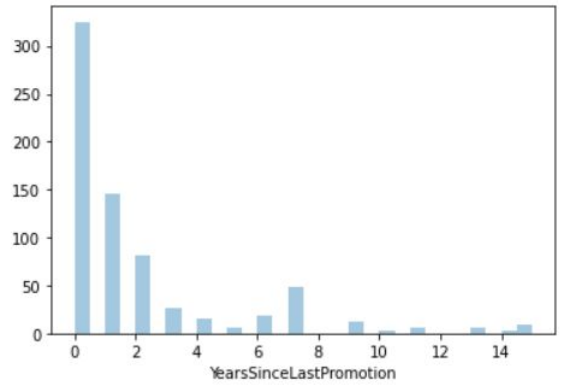
```
data=df1[['YearsWithCurrManager','YearsAtCompany']]
data.corr()
```

	YearsWithCurrManager	YearsAtCompany
YearsWithCurrManager	1.000000	0.769161
YearsAtCompany	0.769161	1.000000

9. For 10% of employees who left the company, it had been 6 or more years since their last promotion.

```
sns.distplot(atr_yes['YearsSinceLastPromotion'],kde=False,bins=30)
```

```
<matplotlib.axes._subplots.AxesSubplot at 0x219b7708128>
```



10. More than 60% employees who left the company worked in the 'Research and Development' department.

```
sns.set_style('whitegrid')
sns.countplot(x='Department',data=atr_yes)
```

```
<matplotlib.axes._subplots.AxesSubplot at 0x219b7bf8a20>
```