

Assignment Day 11

Correlation

H0 There is no significant correlation between Attrition and Monthly income.

H1 There is significant correlation between Attrition and Monthly income.

```
Console 1/A X

In [64]: import matplotlib.pyplot as plt

In [65]: plt.scatter(dataset1.Attrition,dataset1.MonthlyIncome)
Out[65]: <matplotlib.collections.PathCollection at 0x2a96f86e788>

In [66]: stats,p=pearsonr(dataset1.Attrition,dataset1.MonthlyIncome)

In [67]: print(stats,p)
-0.031176281698115007 0.03842748490600132

In [68]:
```

Here P value is less than 0.05 hence H0 is rejected therefore There is significant correlation between Attrition and Monthly income.

```
Console 1/A X

In [80]: co['Attrition']
Out[80]:
Age                -0.159205
Attrition           1.000000
DistanceFromHome   -0.009730
Education          -0.015111
EmployeeCount      NaN
EmployeeID         -0.004729
JobLevel           -0.010290
MonthlyIncome      -0.031176
NumCompaniesWorked  0.042345
PercentSalaryHike   0.032533
StandardHours      NaN
StockOptionLevel   -0.006839
TotalWorkingYears  -0.170338
TrainingTimesLastYear -0.049431
YearsAtCompany     -0.134392
YearsSinceLastPromotion -0.033019
YearsWithCurrManager -0.156199
Name: Attrition, dtype: float64

In [81]: |
```