

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

```
df=pd.read_csv("HR.csv")
df.head()
```

	Age	Attrition	BusinessTravel	DailyRate	Department	DistanceFromHome	Educatio
0	41	Yes	Travel_Rarely	1102	Sales	1	
1	49	No	Travel_Frequently	279	Research & Development	8	
2	37	Yes	Travel_Rarely	1373	Research & Development	2	
3	33	No	Travel_Frequently	1392	Research & Development	3	
4	27	No	Travel_Rarely	591	Research & Development	2	

5 rows × 35 columns



```
print(df.columns)
```

```
Index(['Age', 'Attrition', 'BusinessTravel', 'DailyRate', 'Department',
       'DistanceFromHome', 'Education', 'EducationField', 'EmployeeCount',
       'EmployeeNumber', 'EnvironmentSatisfaction', 'Gender', 'HourlyRate',
       'JobInvolvement', 'JobLevel', 'JobRole', 'JobSatisfaction',
       'MaritalStatus', 'MonthlyIncome', 'MonthlyRate', 'NumCompaniesWorked',
       'Over18', 'OverTime', 'PercentSalaryHike', 'PerformanceRating',
       'RelationshipSatisfaction', 'StandardHours', 'StockOptionLevel',
       'TotalWorkingYears', 'TrainingTimesLastYear', 'WorkLifeBalance',
       'YearsAtCompany', 'YearsInCurrentRole', 'YearsSinceLastPromotion',
       'YearsWithCurrManager'],
      dtype='object')
```

```
print("The mean of monthly income is :",df.loc[:,"MonthlyIncome"].mean())
```

The mean of monthly income is : 6502.931292517007

```
print("The mean of age is :",df.loc[:,"Age"].mean())
```

The mean of age is : 36.923809523809524

```
print("The median of monthly income is :",df.loc[:,"MonthlyIncome"].median())
```

The median of monthly income is : 4919.0

```

print("The median of age is ", df.loc[:, "Age"].median())

    The median of age is    36.0

print("The mode of monthly income is ", df.loc[:, "MonthlyIncome"].mode())

    The mode of monthly income is    0    2342
    Name: MonthlyIncome, dtype: int64

print("The mode of Age is ", df.loc[:, "Age"].mode())

    The mode of Age is    0    35
    Name: Age, dtype: int64

print("The standard deviation of monthly income is :", df.loc[:, "MonthlyIncome"].std())

    The standard deviation of monthly income is : 4707.956783097994

print("The standard deviation of age is :", df.loc[:, "Age"].std())

    The standard deviation of age is : 9.135373489136732

array1 = np.array(df["MonthlyIncome"])
array2 = np.array(df["Age"])
print("Income", array1)
print("Age", array2)

    Income [5993 5130 2090 ... 6142 5390 4404]
    Age [41 49 37 ... 27 49 34]

print("Maximum income among the employees is ", max(array1))
print("Minimum income among the employees is ", min(array1))

    Maximum income among the employees is 19999
    Minimum income among the employees is 1009

print("Maximum age among the employees is ", max(array2))
print("Minimum age among the employees is ", min(array2))

    Maximum age among the employees is 60
    Minimum age among the employees is 18

df["BusinessTravel"].replace({"Travel_Rarely":1, "Travel_Frequently":0}, inplace = True)
df["Attrition"].replace({"Yes":1, "No":0}, inplace = True)
df.head()

```

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0	41	1	1	1102	Sales	1	
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