

## Importing necessary libraries

```
In [ ]: import pandas as pd
import statistics as stat
import numpy as np
import math
```

## Loading dataset

```
In [ ]: df = pd.read_csv("Dataset/Student_Performance2.csv")
df.sample(7)
```

Out[ ]:

	Hours Studied	Previous Scores	Extracurricular Activities	Sleep Hours	Sample Question Papers Practiced	Performance Index
<b>6688</b>	5	96	No	6	2	81.0
<b>2459</b>	2	76	No	9	5	53.0
<b>4596</b>	1	92	Yes	6	7	67.0
<b>4555</b>	5	51	No	7	5	37.0
<b>7009</b>	4	90	Yes	8	3	72.0
<b>5564</b>	3	43	Yes	6	1	19.0
<b>1717</b>	6	61	Yes	5	4	48.0

## Student sleep hour

```
In [ ]: print("Mean: ", df["Sleep Hours"].mean())
print("Median: ", df["Sleep Hours"].median())
print("Mode: ", df["Sleep Hours"].mode())
print("Variance: ", df["Sleep Hours"].var())
print("Standard Deviation: ", df["Sleep Hours"].std())
```

```
Mean: 6.5306
Median: 7.0
Mode: 0 8
Name: Sleep Hours, dtype: int64
Variance: 2.875951235123512
Standard Deviation: 1.6958629765177113
```

## Student study hour

```
In [ ]: print("Mean: ", df["Hours Studied"].mean())
print("Median: ", df["Hours Studied"].median())
print("Mode: ", df["Hours Studied"].mode())
print("Variance: ", df["Hours Studied"].var())
print("Standard Deviation: ", df["Hours Studied"].std())
```

```
Mean: 4.9929
Median: 5.0
Mode: 0 1
Name: Hours Studied, dtype: int64
Variance: 6.7045200420042015
Standard Deviation: 2.5893087961856156
```

## Student previous score

```
In [ ]: print("Mean: ", df["Previous Scores"].mean())
        print("Median: ", df["Previous Scores"].median())
        print("Mode: ", df["Previous Scores"].mode())
        print("Variance: ", df["Previous Scores"].var())
        print("Standard Deviation: ", df["Previous Scores"].std())
```

```
Mean: 69.4457
Median: 69.0
Mode: 0 54
Name: Previous Scores, dtype: int64
Variance: 300.7849300030003
Standard Deviation: 17.343152251047105
```