

## Importing Libraries

```
In [1]: import pandas as pd
import matplotlib.pyplot as plt
import numpy as np
import seaborn as sns
```

## Loading the Datasets

```
In [2]: data=pd.read_csv('Admission_Predict.csv')
data
```

```
Out[2]:
```

|     | Serial No. | GRE Score | TOEFL Score | University Rating | SOP | LOR | CGPA | Research | Chance of Admit |
|-----|------------|-----------|-------------|-------------------|-----|-----|------|----------|-----------------|
| 0   | 1          | 337       | 118         | 4                 | 4.5 | 4.5 | 9.65 | 1        | 0.92            |
| 1   | 2          | 324       | 107         | 4                 | 4.0 | 4.5 | 8.87 | 1        | 0.76            |
| 2   | 3          | 316       | 104         | 3                 | 3.0 | 3.5 | 8.00 | 1        | 0.72            |
| 3   | 4          | 322       | 110         | 3                 | 3.5 | 2.5 | 8.67 | 1        | 0.80            |
| 4   | 5          | 314       | 103         | 2                 | 2.0 | 3.0 | 8.21 | 0        | 0.65            |
| ... | ...        | ...       | ...         | ...               | ... | ... | ...  | ...      | ...             |
| 395 | 396        | 324       | 110         | 3                 | 3.5 | 3.5 | 9.04 | 1        | 0.82            |
| 396 | 397        | 325       | 107         | 3                 | 3.0 | 3.5 | 9.11 | 1        | 0.84            |
| 397 | 398        | 330       | 116         | 4                 | 5.0 | 4.5 | 9.45 | 1        | 0.91            |
| 398 | 399        | 312       | 103         | 3                 | 3.5 | 4.0 | 8.78 | 0        | 0.67            |
| 399 | 400        | 333       | 117         | 4                 | 5.0 | 4.0 | 9.66 | 1        | 0.95            |

400 rows × 9 columns

# Split the data into dependent and independent variables

```
In [3]: x = data.iloc[:,0:7]
x
```

```
Out[3]:
```

|     | Serial No. | GRE Score | TOEFL Score | University Rating | SOP | LOR | CGPA |
|-----|------------|-----------|-------------|-------------------|-----|-----|------|
| 0   | 1          | 337       | 118         | 4                 | 4.5 | 4.5 | 9.65 |
| 1   | 2          | 324       | 107         | 4                 | 4.0 | 4.5 | 8.87 |
| 2   | 3          | 316       | 104         | 3                 | 3.0 | 3.5 | 8.00 |
| 3   | 4          | 322       | 110         | 3                 | 3.5 | 2.5 | 8.67 |
| 4   | 5          | 314       | 103         | 2                 | 2.0 | 3.0 | 8.21 |
| ... | ...        | ..        | ...         | ...               | ... | ... | ...  |
| 395 | 396        | 324       | 110         | 3                 | 3.5 | 3.5 | 9.04 |
| 396 | 397        | 325       | 107         | 3                 | 3.0 | 3.5 | 9.11 |
| 397 | 398        | 330       | 116         | 4                 | 5.0 | 4.5 | 9.45 |
| 398 | 399        | 312       | 103         | 3                 | 3.5 | 4.0 | 8.78 |
| 399 | 400        | 333       | 117         | 4                 | 5.0 | 4.0 | 9.66 |

400 rows × 7 columns

```
In [4]: x.head()
```

```
Out[4]:
```

|   | Serial No. | GRE Score | TOEFL Score | University Rating | SOP | LOR | CGPA |
|---|------------|-----------|-------------|-------------------|-----|-----|------|
| 0 | 1          | 337       | 118         | 4                 | 4.5 | 4.5 | 9.65 |
| 1 | 2          | 324       | 107         | 4                 | 4.0 | 4.5 | 8.87 |
| 2 | 3          | 316       | 104         | 3                 | 3.0 | 3.5 | 8.00 |
| 3 | 4          | 322       | 110         | 3                 | 3.5 | 2.5 | 8.67 |
| 4 | 5          | 314       | 103         | 2                 | 2.0 | 3.0 | 8.21 |

```
In [5]: y = data.iloc[:,8:9 ]
        y
```

```
Out[5]:
```

|     | Chance of Admit |
|-----|-----------------|
| 0   | 0.92            |
| 1   | 0.76            |
| 2   | 0.72            |
| 3   | 0.80            |
| 4   | 0.65            |
| ... | ...             |
| 395 | 0.82            |
| 396 | 0.84            |
| 397 | 0.91            |
| 398 | 0.67            |
| 399 | 0.95            |

400 rows × 1 columns

```
In [6]: y.head()
```

```
Out[6]:
```

|   | Chance of Admit |
|---|-----------------|
| 0 | 0.92            |
| 1 | 0.76            |
| 2 | 0.72            |
| 3 | 0.80            |
| 4 | 0.65            |

```
In [7]: print(f'x contains: {x.shape[0]} rows and {x.shape[1]} columns')
```

x contains: 400 rows and 7 columns

```
In [8]: print(f'y contains: {y.shape}')
```

y contains: (400, 1)

```
In [9]: from sklearn.preprocessing import MinMaxScaler
        scaler=MinMaxScaler()
        x[x.columns] = scaler.fit_transform(x[x.columns])
```

```
In [10]: x.head()
```

```
Out[10]:
```

|   | Serial No. | GRE Score | TOEFL Score | University Rating | SOP   | LOR   | CGPA     |
|---|------------|-----------|-------------|-------------------|-------|-------|----------|
| 0 | 0.000000   | 0.94      | 0.928571    | 0.75              | 0.875 | 0.875 | 0.913462 |
| 1 | 0.002506   | 0.68      | 0.535714    | 0.75              | 0.750 | 0.875 | 0.663462 |
| 2 | 0.005013   | 0.52      | 0.428571    | 0.50              | 0.500 | 0.625 | 0.384615 |
| 3 | 0.007519   | 0.64      | 0.642857    | 0.50              | 0.625 | 0.375 | 0.599359 |
| 4 | 0.010025   | 0.48      | 0.392857    | 0.25              | 0.250 | 0.500 | 0.451923 |

```
In [ ]:
```