

```
import pandas as pd
import numpy as np
```

```
from google.colab import files
uploaded = files.upload()
```

No file chosen Upload widget is only available when the cell has been executed in the current browser session. Please rerun this cell to enable.

Saving Social_Network_Ads.csv to Social_Network_Ads.csv

```
df = pd.read_csv('Social_Network_Ads.csv')
df
```

	Age	EstimatedSalary	Purchased
0	19	19000	0
1	35	20000	0
2	26	43000	0
3	27	57000	0
4	19	76000	0
...
395	46	41000	1
396	51	23000	1
397	50	20000	1
398	36	33000	0
399	49	36000	1

400 rows × 3 columns

```
df.head()
```

	Age	EstimatedSalary	Purchased
0	19	19000	0
1	35	20000	0
2	26	43000	0
3	27	57000	0
4	19	76000	0

```
X = df[['Age', 'EstimatedSalary']]
y = df['Purchased']
```

```
from sklearn.model_selection import train_test_split
X_train, X_test, y_train, y_test = train_test_split(X, y, test_size = 0.30)
```

```
X_train.shape
```

(280, 2)

```
X_train.isna().sum()
```

	0
Age	0
EstimatedSalary	0

dtype: int64

```
from sklearn.impute import SimpleImputer
```

```
imputer = SimpleImputer(missing_values = np.nan, strategy = 'mean')
```

```
imputer.fit(X_train[['Age', 'EstimatedSalary']])
```

▼ SimpleImputer ⓘ ?
SimpleImputer()

```
X_train[['Age', 'EstimatedSalary']] = imputer.transform(X_train[['Age', 'EstimatedSalary']])
```