▾ MACHINE LEARNING

▾ MULTIPLE LINEAR REGRESSION

```
pip install skleton
```

```
Looking in indexes: https://pypi.org/simple, https://us-python.pkg.dev/colab-wheels/pub
ERROR: Could not find a version that satisfies the requirement skleton (from versions: r
ERROR: No matching distribution found for skleton
```

```
pip install scikit-learn
```

```
Looking in indexes: https://pypi.org/simple, https://us-python.pkg.dev/colab-wheels/pub
Requirement already satisfied: scikit-learn in /usr/local/lib/python3.10/dist-packages (
Requirement already satisfied: numpy>=1.17.3 in /usr/local/lib/python3.10/dist-packages
Requirement already satisfied: scipy>=1.3.2 in /usr/local/lib/python3.10/dist-packages (
Requirement already satisfied: joblib>=1.1.1 in /usr/local/lib/python3.10/dist-packages
Requirement already satisfied: threadpoolctl>=2.0.0 in /usr/local/lib/python3.10/dist-pa
```

▾ import libraries

```
import numpy as np
import pandas as pd
import seaborn as sns
import matplotlib.pyplot as plt
import sklearn
```

▾ STEP-1 **import** data

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

	age	distance	YearsExperience	Salary
0	31.1	77.75	1.1	39343

step-2 define dependent and independent variables

| **2** | 31.5 | 78.75 | 1.5 | 37731 |

```
X=df[["age","distance","YearsExperience"]]
y=df["Salary"]
```

```
X.head()
```

	age	distance	YearsExperience
0	31.1	77.75	1.1
1	31.3	78.25	1.3
2	31.5	78.75	1.5
3	32.0	80.00	2.0
4	32.2	80.50	2.2

```
y.head()
```

```
0    39343
1    46205
2    37731
3    43525
4    39891
Name: Salary, dtype: int64
```

step-3 fit linear regression model

```
from sklearn.linear_model import LinearRegression
model = LinearRegression()
model=model.fit(X,y)
model
```

```
▼ LinearRegression
LinearRegression()
```

step-4 evaluating model fitness

```
model.score(X,y)
```

    0.9569960750337954

▼ step-5 predicting of unknown value

```
model.predict([[31.1,77.75,1.1]])
```

⤷   /usr/local/lib/python3.10/dist-packages/sklearn/base.py:439: UserWarning: X does not hav
        warnings.warn(
    array([36209.375])