Project Name: Simple Linear Regression

```
import pandas as pd
salary = pd.read_csv('https://github.com/ybifoundation/Dataset/raw/main/Salary%20Data.csv')
salary.columns
```

Output: Index(['Experience Years', 'Salary'], dtype='object')

```
y = salary['Salary']
X = salary[['Experience Years']]

from sklearn.model_selection import train_test_split
X_train, X_test, y_train, y_test = train_test_split(X,y, train_size=0.7, random_state=2529)

X_train.shape, X_test.shape, y_train.shape, y_test.shape
```

Output:
((28, 1), (12, 1), (28,), (12,))

```
from sklearn.linear_model import LinearRegression
model = LinearRegression()

model.fit(X_train,y_train)
```

Output: LinearRegression()

```
model.intercept_
```

Output: 26596.961311068262

```
model.coef_
```

Output: array([9405.61663234])

```
y_pred = model.predict(X_test)
y_pred
```

Output: array([90555.15441095, 59516.61952424, 106544.70268592, 64219.42784041,
68922.23615658, 123474.81262412, 84911.78443155, 63278.86617718,
65159.98950364, 61397.74285071, 37883.70126987, 50111.00289191])

```
from sklearn.metrics import mean_absolute_error, mean_absolute_percentage_error,mean_squared_error
mean_absolute_error(y_test,y_pred)
```

Output: 4005.9263101681768

```
mean_absolute_percentage_error(y_test,y_pred)
```

Output: 0.06384602996141632

```
mean_squared_error(y_test,y_pred)
```

Output: 24141421.671440993