

```
# Import libraries

Import numpy as np

Import pandas as pd

From sklearn.linear_model import LinearRegression


# Create a sample dataset

# Features: Hours Studied, Hours Slept

# Target: Exam Score

Data = {

    'Hours_Studied': [10, 9, 8, 7, 6, 5, 4, 3, 2, 1],

    'Hours_Slept': [7, 8, 6, 5, 7, 8, 6, 5, 4, 3],

    'Exam_Score': [95, 90, 85, 80, 75, 70, 65, 60, 55, 50]

}


# Convert to DataFrame

Df = pd.DataFrame(data)


# Define independent variables (X) and dependent variable (y)

X = df[['Hours_Studied', 'Hours_Slept']]

Y = df['Exam_Score']


# Initialize and train the model

Model = LinearRegression()

Model.fit(X, y)
```

```
# Print coefficients
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```
Print("Intercept:", model.intercept_)
```

```
Print("Coefficients:", model.coef_)
```

```
# Make predictions
```

```
New_data = pd.DataFrame({'Hours_Studied': [6, 9], 'Hours_Slept': [6, 8]})
```

```
Predictions = model.predict(new_data)
```

```
# Print predictions
```

```
Print("\nPredictions for new data:")
```

```
Print(new_data)
```

```
Print("Predicted Exam Scores:", predictions)
```

OUTPUT :

```
Intercept: 29.999999999999993
```

```
Coefficients: [5.    2.5   ]
```

Predictions for new data:

	Hours_Studied	Hours_Slept
0	6	6
1	9	8

```
Predicted Exam Scores: [75. 95.]
```