

```

import pandas as pd
import numpy as np
from sklearn.linear_model import LinearRegression
import matplotlib.pyplot as plt

saldf=pd.read_csv('/content/drive/MyDrive/diabetcsv.csv/Salary
Data.csv')

saldf.head()

{"summary":{"\n  \"name\": \"saldf\",\n  \"rows\": 375,\n  \"fields\": [\n    {\n      \"column\": \"Age\",\n      \"properties\": {\n        \"dtype\": \"number\",\n        \"std\": 7.069072938567496,\n        \"min\": 23.0,\n        \"max\": 53.0,\n        \"num_unique_values\": 31,\n        \"samples\": [\n          46.0,\n          33.0,\n          37.0\n        ],\n        \"semantic_type\": \"\",\n        \"description\": \"\"\n      },\n      \"column\": \"Gender\",\n      \"properties\": {\n        \"dtype\": \"category\",\n        \"num_unique_values\": 2,\n        \"samples\": [\n          \"Female\",\n          \"Male\"\n        ],\n        \"semantic_type\": \"\",\n        \"description\": \"\"\n      },\n      \"column\": \"Education Level\",\n      \"properties\": {\n        \"dtype\": \"category\",\n        \"num_unique_values\": 3,\n        \"samples\": [\n          \"Bachelor's\",\n          \"Master's\"\n        ],\n        \"semantic_type\": \"\",\n        \"description\": \"\"\n      },\n      \"column\": \"Job Title\",\n      \"properties\": {\n        \"dtype\": \"category\",\n        \"num_unique_values\": 174,\n        \"samples\": [\n          \"Junior Advertising Coordinator\",\n          \"Junior Product Manager\"\n        ],\n        \"semantic_type\": \"\",\n        \"description\": \"\"\n      },\n      \"column\": \"Years of Experience\",\n      \"properties\": {\n        \"dtype\": \"number\",\n        \"std\": 6.557007136414243,\n        \"min\": 0.0,\n        \"max\": 25.0,\n        \"num_unique_values\": 28,\n        \"samples\": [\n          10.0,\n          24.0\n        ],\n        \"semantic_type\": \"\",\n        \"description\": \"\"\n      },\n      \"column\": \"Salary\",\n      \"properties\": {\n        \"dtype\": \"number\",\n        \"std\": 48240.0134818827,\n        \"min\": 350.0,\n        \"max\": 250000.0,\n        \"num_unique_values\": 36,\n        \"samples\": [\n          350.0,\n          40000.0\n        ],\n        \"semantic_type\": \"\",\n        \"description\": \"\"\n      }\n    }\n  ],\n  \"type\": \"dataframe\", \"variable_name\": \"saldf\"}

saldf.info()

<class 'pandas.core.frame.DataFrame'>
RangeIndex: 375 entries, 0 to 374
Data columns (total 6 columns):

```

| # | Column | Non-Null Count | Dtype |
|---|---------------------|----------------|---------|
| 0 | Age | 373 non-null | float64 |
| 1 | Gender | 373 non-null | object |
| 2 | Education Level | 373 non-null | object |
| 3 | Job Title | 373 non-null | object |
| 4 | Years of Experience | 373 non-null | float64 |
| 5 | Salary | 373 non-null | float64 |

dtypes: float64(3), object(3)

memory usage: 17.7+ KB

```
saldf.isnull().sum()
```

| | |
|---------------------|---|
| Age | 2 |
| Gender | 2 |
| Education Level | 2 |
| Job Title | 2 |
| Years of Experience | 2 |
| Salary | 2 |

dtype: int64

```
saldf_cleaned = saldf.dropna(subset=['Years of Experience', 'Salary'])
```

```
inp = saldf_cleaned[['Years of Experience']]
```

```
out = saldf_cleaned[['Salary']]
```

```
LR=LinearRegression()
```

```
LR.fit(inp,out)
```

```
LinearRegression()
```

```
LR.predict([[5]])
```

```
/usr/local/lib/python3.12/dist-packages/sklearn/utils/
validation.py:2739: UserWarning: X does not have valid feature names,
but LinearRegression was fitted with feature names
  warnings.warn(
```

```
array([66143.76948947])
```