

## PRACTICLE-5

**# To predict the price of any item using supervised learning algorithm.**

**# (Linear Regression)**

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

**#Load the Dataset**

```
df=pd.read_csv("/content/PotatoPrice.csv")
print(df)
```

**#DATA VISUALIZATION**

```
%matplotlib inline
plt.xlabel("Potato in Kg")
plt.ylabel("Price in Rupees")
plt.scatter(df.potato_kg,df.price)
X=df[["potato_kg"]]
Y=df["price"]
from sklearn.model_selection import train_test_split
X_train,X_test,Y_train,Y_test=train_test_split(X,Y,test_size=0.2)
print("X_train", X_train)
print("X_test", X_test)
print("Y_train", Y_train)
print("Y_test", Y_test)
```

**#Train Dataset using model**

```
reg=LinearRegression()
reg.fit(X_train,Y_train)
reg.predict(X_test)
```

**#ACCURACY OF THE MODEL**

```
print('ACCURACY:', reg.score(x_test,y_test))
```

**#Take the user input**

```
x=input("Enter the potato quantity in kg: \n")
array=np.array(x)
fvalu=array.astype(np.float)
fvalu_2D=([[fvalu]])
my_prediction=reg.predict(fvalu_2D)
price=np.array(my_prediction)
price=price.item()
print('So',x,'Kilogram potato price is ',price,' Rupees')
```

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### Output:

Trained Dataset: [0.17857143 129.82142857]

ACCURACY: 0.9681122448979591

Enter the potato quantity in kg: 10

So 10 Kilogram potato price is 124.99999999999999 Rupees

