

(click here to open code in Google Colab :-

https://colab.research.google.com/drive/1kgqz8Xs6RW6K9JkrWkvu_MzYze0CHaSk?usp=sharing)

(Github :- <https://github.com/sandeshdesai07/Stock-price-prediction.git>)

Source Code

```
#Import the libraries

import pandas as pd
import xgboost as xgb
import matplotlib.pyplot as plt

#Load the small_dataset
data=pd.read_csv('stock_small_data.csv')

#Show data
data

#Show the data visually
data['Close'].plot(color='g')

#Split the data into training and testing data sets
train_data=data.iloc[:int(.49*len(data)), :]
test_data=data.iloc[int(.49*len(data)):, :]

#Define the features and target variable
features=['Open','Volume']
target='Close'

#Create and train the model
model=xgb.XGBRegressor()
model.fit(train_data[features],train_data[target])
```

```
#Make and show the predictions on the test data
```

```
predictions=model.predict(test_data[features])
```

```
print(predictions)
```

```
#Show the actual values
```

```
print('Actual Values: ')
```

```
print(test_data[target])
```

```
#Show the models accuracy
```

```
accuracy=model.score(test_data[features],test_data[target])
```

```
print('Accuracy:')
```

```
print(accuracy*100,"%")
```

```
#Plot the predictions and the close price
```

```
plt.plot(data['Close'],label='Close Price',color='g')
```

```
plt.plot(test_data[target].index,predictions,label='Predictions',color='r')
```

```
plt.legend()
```

```
plt.show()
```

```
#Load the large_dataset
```

```
data=pd.read_csv('stock_large_data.csv')
```

```
#Show data
```

```
data
```

```
#Show the data visually
```

```
data['Close'].plot(color='g')
```

```
#Split the data into training and testing data sets
```

```
train_data=data.iloc[:int(.99*len(data)), :]  
test_data=data.iloc[int(.99*len(data)):, :]  
  
#Define the features and target variable  
features=['Open','Volume']  
target='Close'  
  
#Create and train the model  
model=xgb.XGBRegressor()  
model.fit(train_data[features],train_data[target])  
  
#Make and show the predictions on the test data  
predictions=model.predict(test_data[features])  
print(predictions)  
  
#Show the actual values  
print('Actual Values: ')  
print(test_data[target])  
  
#Show the models accuracy  
accuracy=model.score(test_data[features],test_data[target])  
print('Accuracy:')  
print(accuracy*100,"%")  
  
#Plot the predictions and the close price  
plt.plot(data['Close'],label='Close Price',color='g')  
plt.plot(test_data[target].index,predictions,label='Predictions',color='r')  
plt.legend()  
plt.show()
```