STOCK PRICE PREDICTION PROJECT

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OVERVIEW

1.what is stock market?
2. Importance of stock market
3.define stock market prediction
4.stock market prediction using the long-short Term memory method
5.conclusion

What is Stock Market ?

- The stock market is the collection of markets where stocks and other securities are bought and sold by investors. Publicly traded companies offer shares of ownership to the public, and those shares can be bought and sold on the stock market. Investors can make money by buying shares of a company at a low price and selling them at a higher price. The stock market is a key component of the global economy, providing businesses with funding for growth and expansion. It is also a popular way for individuals to invest and grow their wealth over time.

IMPORTANC OF STOCK MARKET

It provides a source of capital for companies to raise funds for growth and expansion.

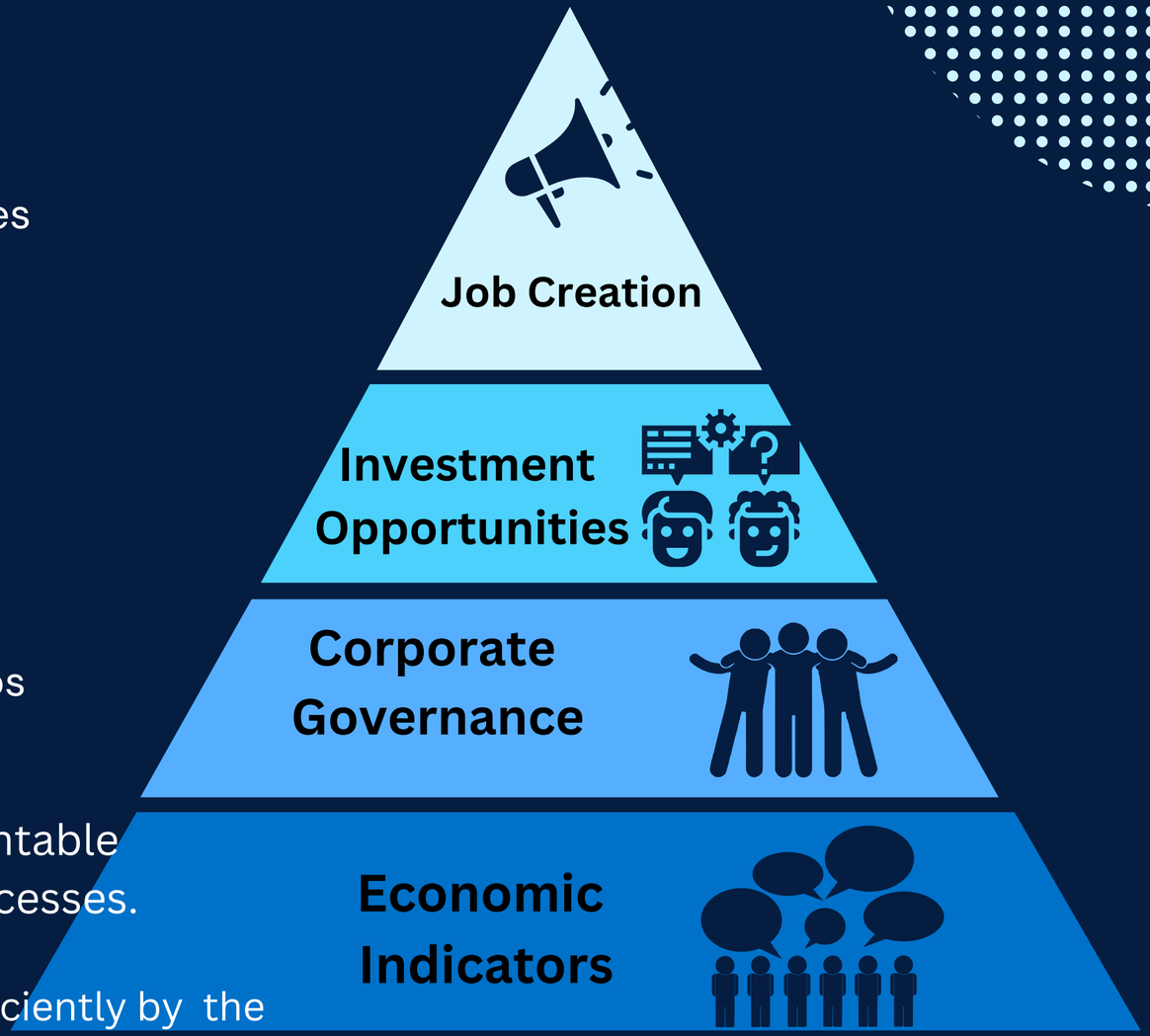
Investors can potentially grow their wealth over time by investing in the stock market.

The stock market can indicate the overall health of the economy

Publicly traded companies often create jobs and contribute to the economy’s growth

Shareholders can hold companies accountable for their actions and decision-making processes.

The stock market helps allocate resources efficiently by the directing investments to companies with promising prospects.



GOALS AND OBJECTIVES

Growth

The purpose of a stock exchange is to help in capital formation and act as intermediary between companies and investors by providing a common platform for exchange

Customer Satisfaction

When stocks rise, people invested in the equity markets gain wealth. This increased wealth often leads to increased consumer spending, as consumers buy more goods and services when they're confident they are in a financial position to do so.

STOCK MARKET PREDICTION USING THE LONG SHORT-TERM MEMORY METHOD

We will use the Long Short-Term Memory(LSTM) method to create a Machine Learning model forecast Microsoft Corporation stock values

PROGRAM

```
import numpy as np
import pandas as pd
import matplotlib.pyplot as plt
import seaborn as sb

from sklearn.model_selection import
train_test_split
from sklearn.preprocessing import
StandardScaler
from sklearn.linear_model import
LogisticRegression
from sklearn.svm import SVC
from xgboost import XGBClassifier
from sklearn import metrics

import warnings
warnings.filterwarnings('ignore')
```

IMPORT DATASET

The dataset we will use here to perform the analysis and build a predictive model is Tesla Stock Price data. We will use OHLC(‘Open’, ‘High’, ‘Low’, ‘Close’) data from 1st January 2010 to 31st December 2017 which is for 8 years for the Tesla stocks.

```
df = pd.read_csv('/content/Tesla.csv')
df.head()
```

Output for program

	Date	Open	High	Low	Close	Volume	Adj Close
0	6/29/2010	19.000000	25.00	17.540001	23.889999	18766300	23.889999
1	6/30/2010	25.790001	30.42	23.299999	23.830000	17187100	23.830000
2	7/1/2010	25.000000	25.92	20.270000	21.959999	8218800	21.959999
3	7/2/2010	23.000000	23.10	18.709999	19.200001	5139800	19.200001
4	7/6/2010	20.000000	20.00	15.830000	16.110001	6866900	16.110001

Program

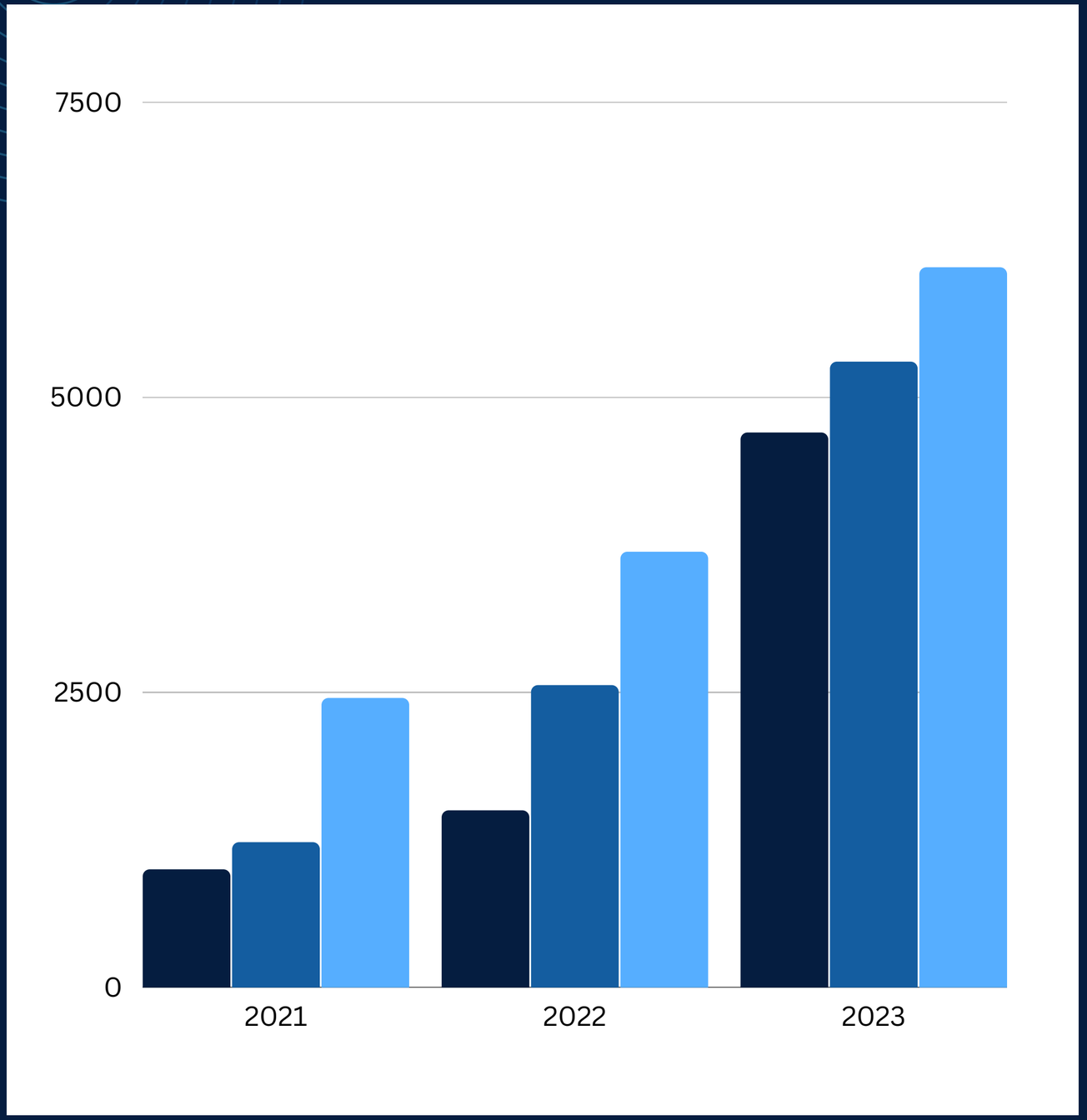
```
plt.figure(figsize=(15,5))

plt.plot(df['Close'])

plt.title('Tesla Close price.', fontsize=15)

plt.ylabel('Price in dollars.')

plt.show()
```



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