!pip install yfinance scikit-learn matplotlib --quiet

import yfinance as yf

import pandas as pd

import numpy as np

import matplotlib.pyplot as plt

from sklearn.model\_selection import train\_test\_split

from sklearn.linear\_model import LinearRegression

from sklearn.metrics import mean\_squared\_error

stock\_symbol = 'AAPL'

data = yf.download(stock\_symbol, start='2020-01-01', end='2024-01-01')

data = data[['Close']].dropna()

data['Target'] = data['Close'].shift(-1)

data = data.dropna()

X = data[['Close']].values

y = data['Target'].values

X\_train, X\_test, y\_train, y\_test = train\_test\_split(X, y, test\_size=0.2, random\_state=42)

model = LinearRegression()

model.fit(X\_train, y\_train)

predictions = model.predict(X\_test)

mse = mean\_squared\_error(y\_test, predictions)

print(f"Mean Squared Error: {mse:.2f}")

plt.figure(figsize=(10, 6))

plt.plot(y\_test[:100], label='Actual')

plt.plot(predictions[:100], label='Predicted')

plt.title(f"{stock\_symbol} Stock Price Prediction (Next Day)")

plt.xlabel("Days")

plt.ylabel("Stock Price")

plt.legend()

plt.grid(True)

plt.show()

Output:

