**Lab\_Test1\_Batch CSB06**

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**Q1. Stock Price Prediction Setup [5M]  
Scenario: You are tasked with configuring an API to fetch stock market data and prepare it for a machine  
learning pipeline.  
• Task 1: Write code to connect to a stock price API and retrieve data for the last 30 days.**

**PROMPT:**

*“Write Python code to connect to a stock price API and retrieve stock market data for the last 30 days. Use yfinance to fetch data, and display Open, High, Low, Close, and Volume.”*

**CODE GENERATED:**

A computer screen shot of a program code

AI-generated content may be incorrect.

**OUTPUT:**

A screenshot of a computer screen

AI-generated content may be incorrect.

**OBSERVATION:**

1. The program successfully connects to the Yahoo Finance API using the yfinance library.

2.It retrieves historical stock price data for the last 30 days of the given ticker symbol (e.g., AAPL).

3. The output displays important fields such as Open, High, Low, Close, and Volume.

4.This confirms that real-time financial data can be fetched and is ready for further analysis or machine learning pipeline preparation.

**• Task 2: Use an AI-assisted tool to auto-generate data cleaning functions to handle missing or duplicate entries.**

**PROMPT:**

*” Write Python functions using Pandas to clean a dataset by handling missing values and duplicate entries. The functions should either drop or fill NaN values and remove any duplicate rows. Provide simple example data to demonstrate the cleaning process.”*

**CODE GENERATED:**

A screen shot of a computer program

AI-generated content may be incorrect.

**OUTPUT:**

A screenshot of a computer program

AI-generated content may be incorrect.

**OBSERVATION:**

1.The program successfully creates functions to handle missing values and duplicate entries in the dataset.

2.Missing values can be either dropped or filled with a default value.

3.Duplicate rows are detected and removed, ensuring data consistency.

4.The cleaned dataset is ready for further analysis or machine learning pipeline usage.

**Q2. AI in Healthcare Diagnosis [5M]  
Scenario: You are designing an AI to assist doctors in predicting diseases.  
• Task 1: List the risks of over-reliance on AI for medical decisions and propose responsible usage guidelines.**

**PROMPT:**

*“List the risks of over-reliance on AI for medical decisions and suggest responsible usage guidelines to ensure AI supports doctors effectively without replacing human judgment.”*

**OUTPUT:**

**Risks of Over-Reliance on AI:**

1. Misdiagnosis if AI model is biased or inaccurate.
2. Doctors may lose critical judgment due to over-dependence.
3. Patient data privacy may be compromised.
4. Ethical issues if patients are unaware AI is used.
5. Accountability gap in case of wrong predictions.

**Responsible Usage Guidelines:**

1. AI should assist, not replace doctors.
2. Doctors must validate AI outputs before decisions.
3. Patient data must be anonymized for privacy.
4. Use explainable AI models for transparency.
5. Perform regular audits and updates of AI systems.

**OBSERVATION:**

AI improves medical predictions but over-reliance is risky. Responsible usage ensures AI acts as a supportive tool while doctors remain the decision-makers.

**• Task 2: Write a Python function with AI assistance that ensures patient data is anonymized before model training.**

**PROMPT:**

*” Write a Python function that anonymizes patient data by removing or masking sensitive details such as name, address, and phone number, while keeping necessary fields like PatientID, Age, and Disease for model training.”*

**CODE GENERATED:**

A screen shot of a computer program

AI-generated content may be incorrect.

**OUTPUT:**

A screen shot of a computer

AI-generated content may be incorrect.

**OBSERVATION:**

The Python function successfully anonymizes patient data by masking or dropping personal identifiers while keeping useful features for model training.