

AI ASISTANT lab assignment:1.5

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Batch:06

Task1:

Lab 1: Environment Setup: GitHub Copilot and VS Code/JetBrains integration

Objective: To install, configure, and test GitHub Copilot in Visual Studio Code (VS Code) and observe how AI-assisted suggestions can enhance code productivity.

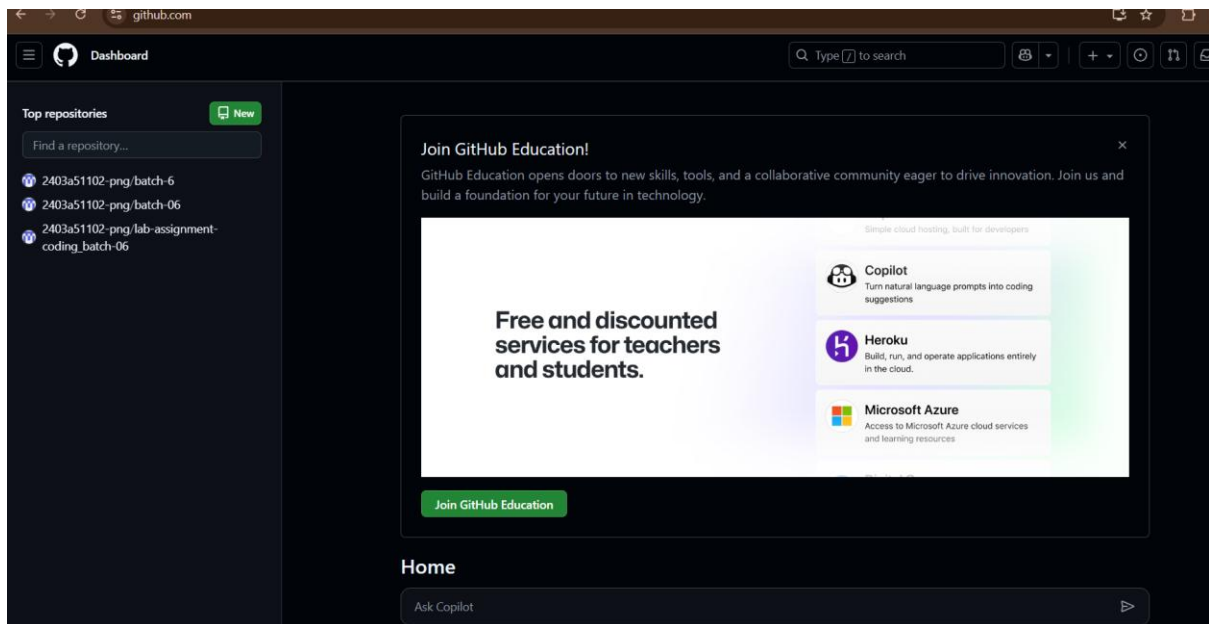
You are a software engineering intern starting a new project where code quality and speed are critical. Your team has adopted GitHub Copilot to assist in writing repetitive functions, and even advanced logic. You are

tasked with setting up the Copilot environment in your local VS Code and submitting your observations after trying it out on a mini project.

Tasks to be completed are as below

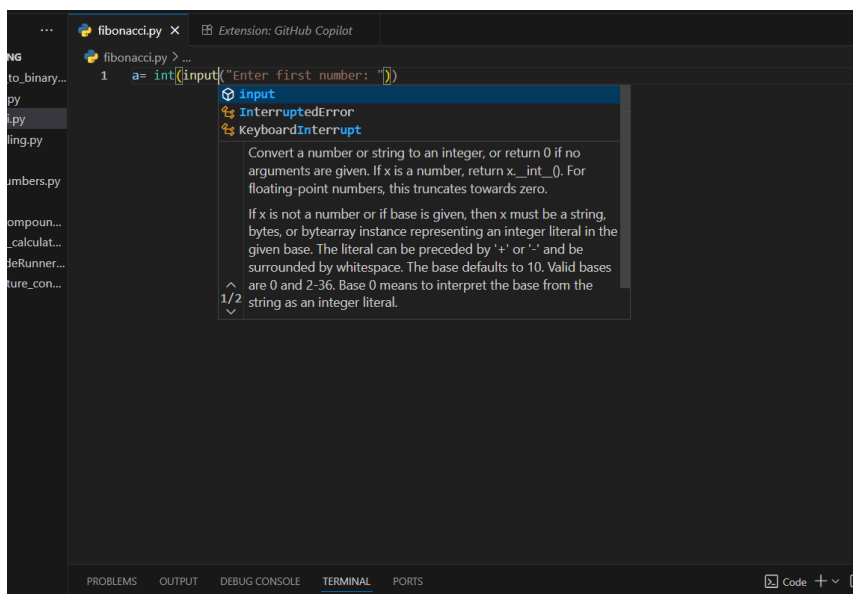
1. Setup GitHub Copilot:

- Install **Visual Studio Code** (if not already installed).
- Install the **GitHub Copilot extension** from the VS Code Marketplace.
- Authenticate with your **GitHub account** (must have access to Copilot free or trial).



2. First Use:

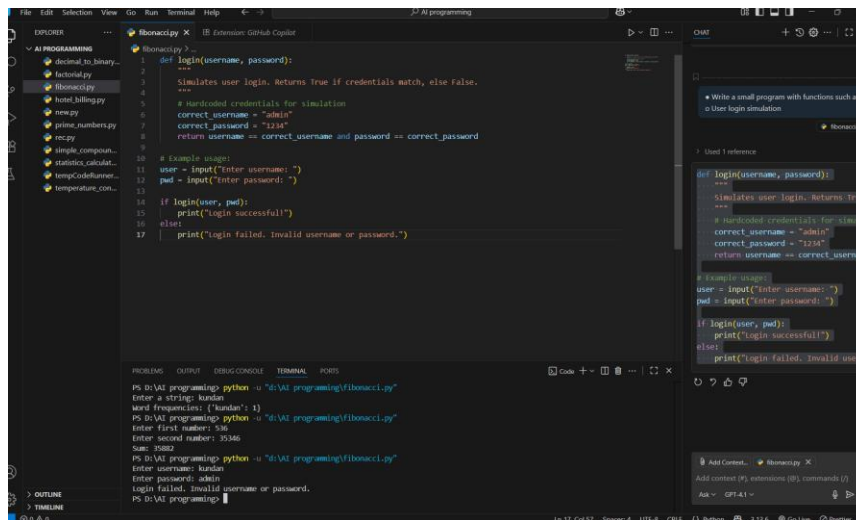
- Create a new Python or JavaScript file.



- Start writing a function like add 2 numbers and observe Copilot suggestions.
- Accept, reject, or modify suggestions as needed.

3. Mini Project:

- Write a small program with functions such as:
 - User login simulation



```
1 def login(username, password):
2     """
3     Simulates user login. Returns True if credentials match, else False.
4     """
5     # Hardcoded credentials for simulation
6     correct_username = "admin"
7     correct_password = "1234"
8     return username == correct_username and password == correct_password
9
10 # Example usage:
11 user = input("Enter username: ")
12 pwd = input("Enter password: ")
13
14 if login(user, pwd):
15     print("Login successful!")
16 else:
17     print("Login failed. Invalid username or password.")
```

Terminal output:

```
PS D:\AI programming> python -u "D:\AI programming\fibonacci.py"
Enter a string: kundan
Send frequencies: ['kundan': 1]
PS D:\AI programming> python -u "D:\AI programming\fibonacci.py"
Enter first number: 500
Enter second number: 35366
Sum: 35862
PS D:\AI programming> python -u "D:\AI programming\fibonacci.py"
Enter username: kundan
Enter password: admin
Login failed. Invalid username or password.
PS D:\AI programming>
```

- File I/O operations
- JSON data parsing
- Use Copilot to generate parts of the logic, then manually review and refine.

4. Observation and Report:

- Record your experience: What kind of suggestions did Copilot offer? Were they accurate? How much time did it save?

- ANS: Sometime it give good annswer but but sometime it gives band one. At one time it give me a code in which there was no call for the functionom
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- **Requirements:**
- VS Code with Github Copilot or Cursor API and/or Google Colab with Gemini
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- **Deliverables:**
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- Screenshot of Copilot active in VS Code.
- Code files for the mini project.
- A short report (1 page) summarizing:
- Setup steps
- Experience using Copilot

