

## INTRODUCTION TO COPILOT

**Introduction:** GitHub Copilot is an **AI-powered coding assistant** developed by GitHub and OpenAI. It helps developers by suggesting **real-time code completions, functions, and even entire code blocks** directly in your IDE (like **Visual Studio Code, Visual Studio, JetBrains**, etc.).

### How It Works:

Github Copilot uses **machine learning** to understand the code you're writing and offers **context-aware suggestions**. It's trained on a massive dataset of public code and natural language, allowing it to:

- Autocomplete lines of code
- Suggest new functions
- Fix bugs
- Translate comments into code

### Key Benefits:

- Speeds up development
- Reduces boilerplate coding
- Helps learn new syntax and libraries
- Works with many programming languages (like Java, Python, JavaScript, etc.)

### Necessary Things to Work with GitHub Copilot:

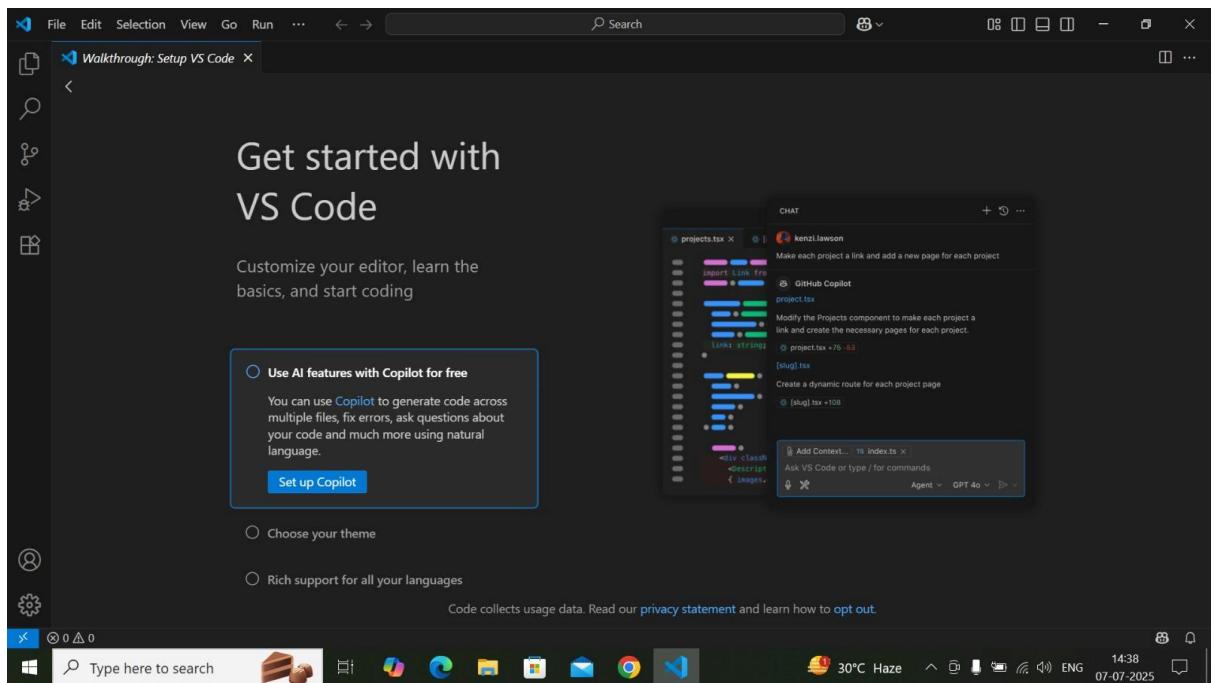
To use **GitHub Copilot** effectively, you need to set up a few tools and accounts. Here's a checklist:

1. **GitHub Account**
2. **Git**
3. **Supported IDE Installed**
4. **Copilot Extension Installed**
5. **Sign In to GitHub in the IDE**
6. **Internet Connection**

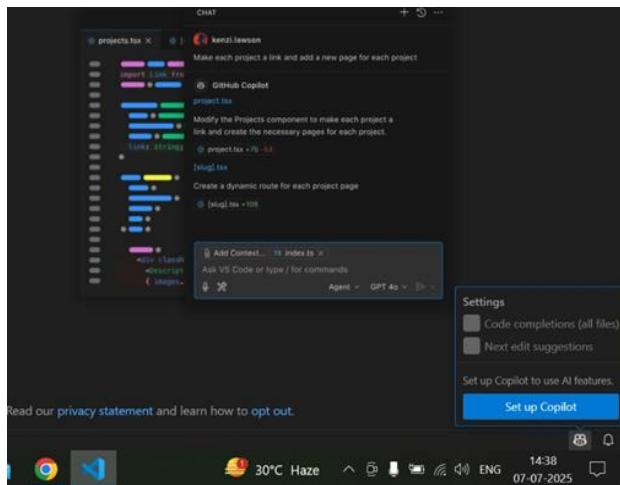
## 1. Download Visual Studio Code

<https://code.visualstudio.com/Download>

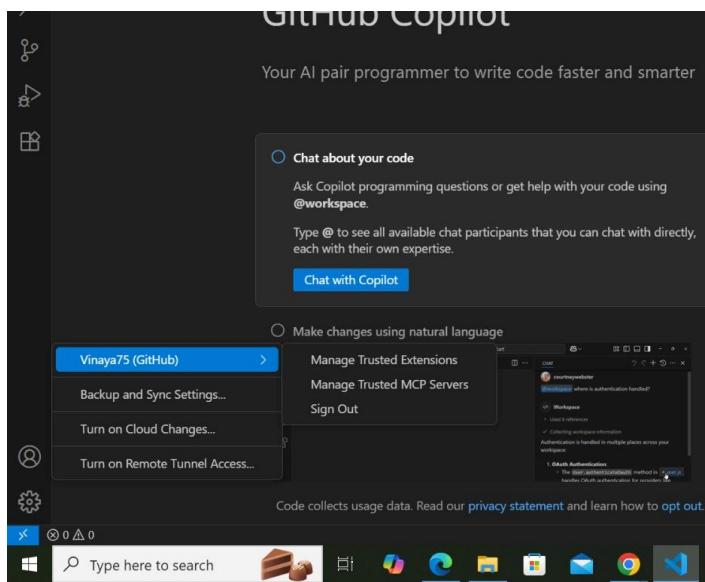
## 2. Open Visual Studio Code



## 3. Click on Copilot Status Icon

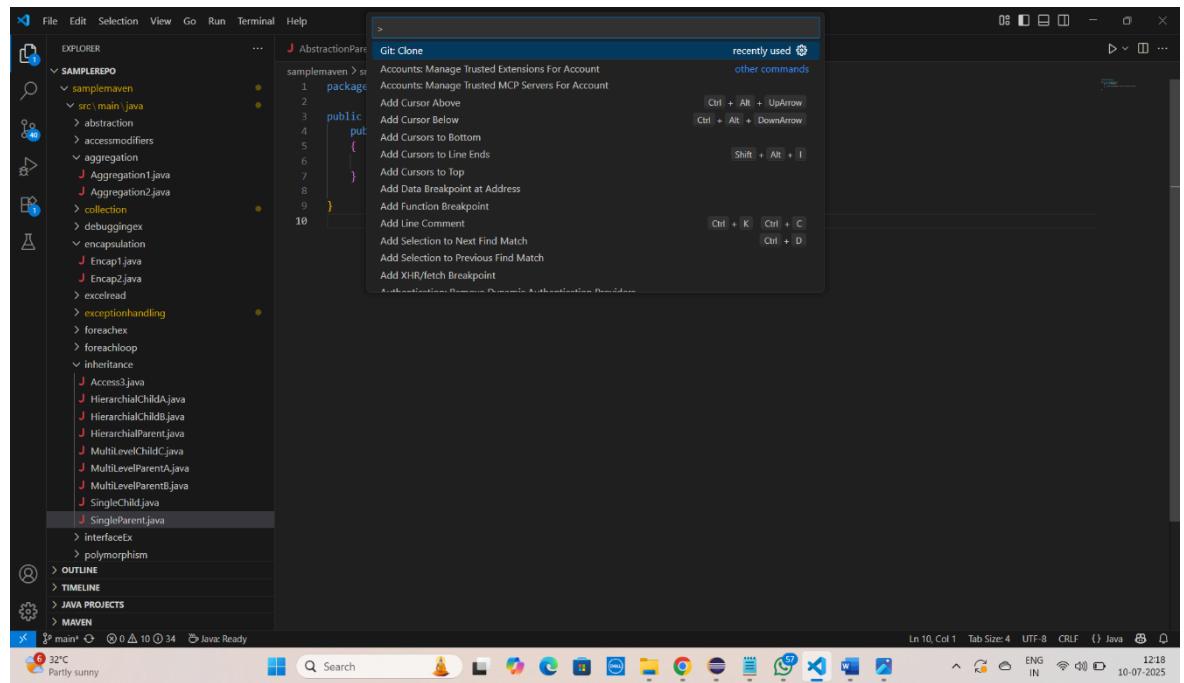


#### 4. Sign in to GitHub Account

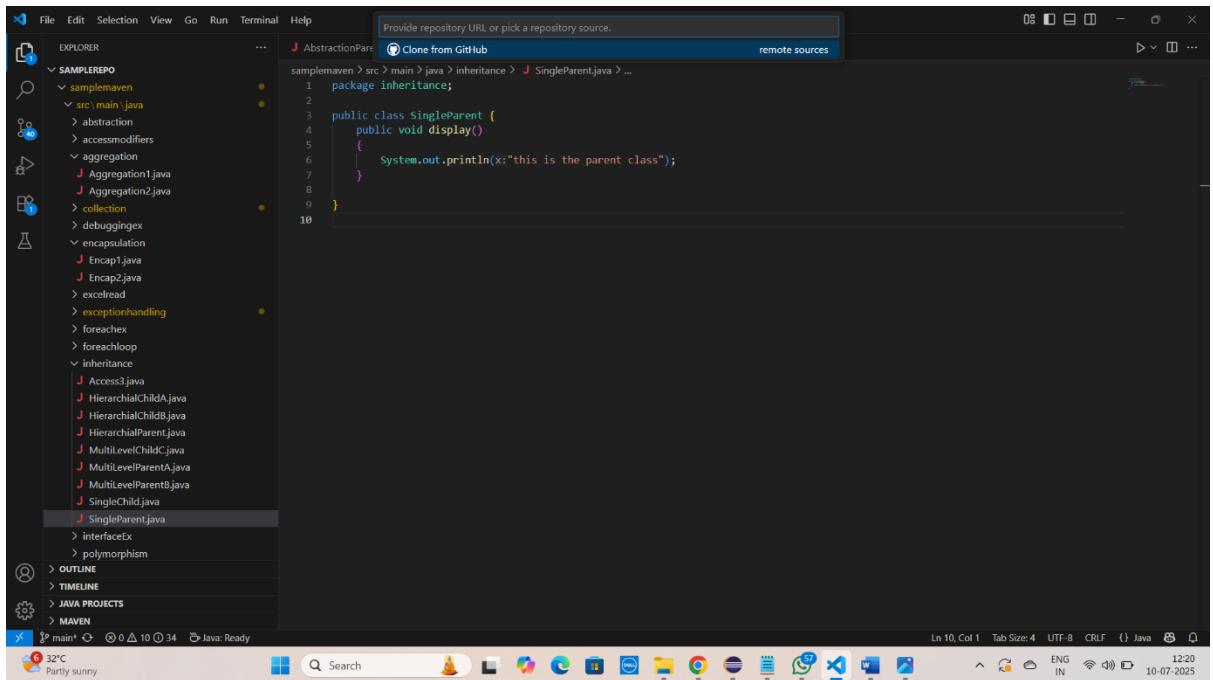


#### 5. Click Ctrl+Shift+P

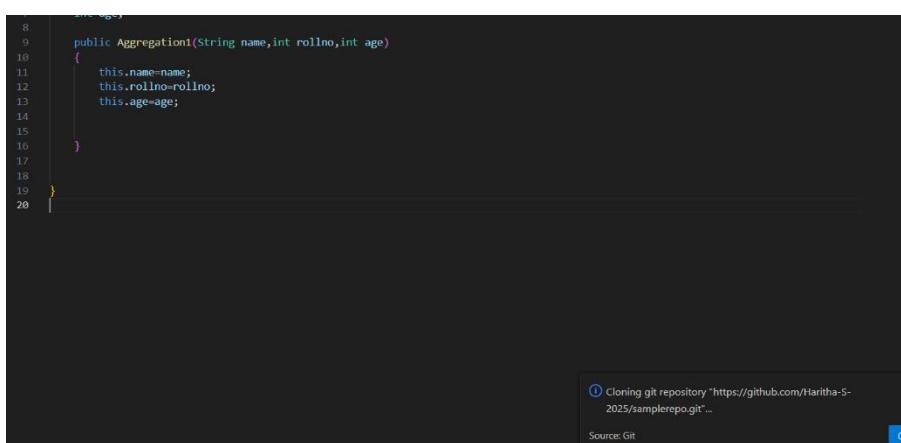
##### 5.1 . Click Git Clone



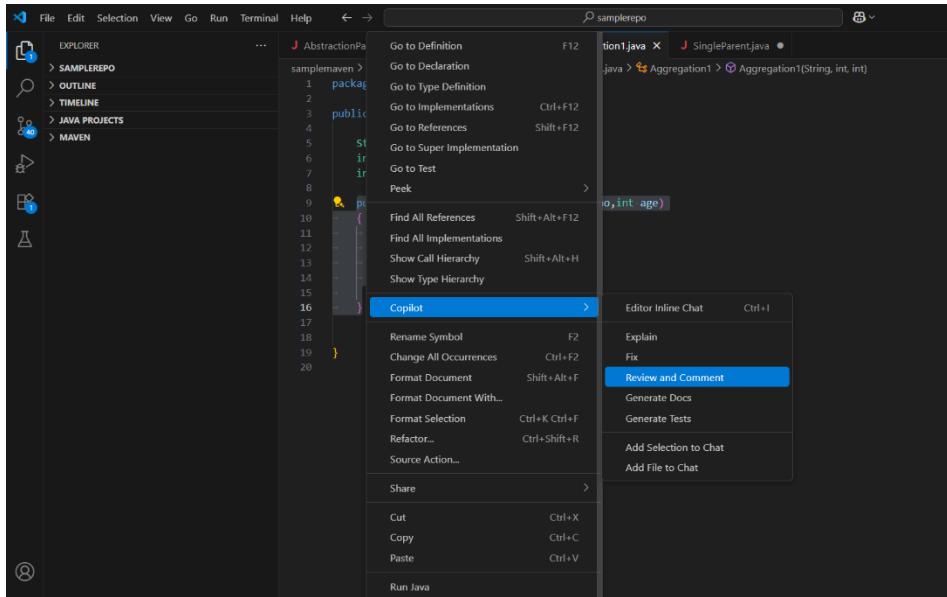
## 6.2. Click on Clone from GitHub



6. Select the repository and open
7. Choose the repository and select the project folder
8. Open any code file
9. Sign In using your GitHub credentials when prompted



## 10. Authorized Copilot and choose your preferences for code suggestions



## 11. GitHub Copilot continuously analyzes your code and comments to provide suggestions.

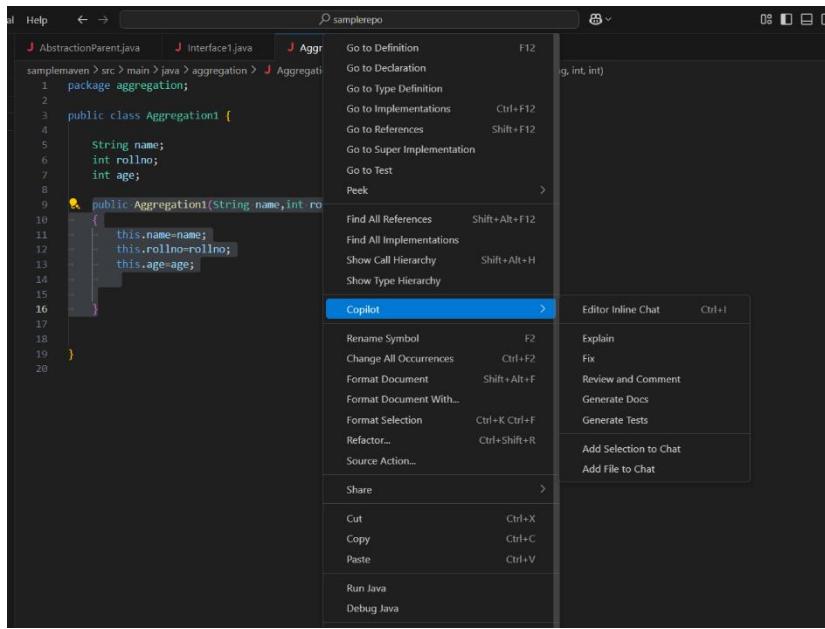
Example:

How to fix a code

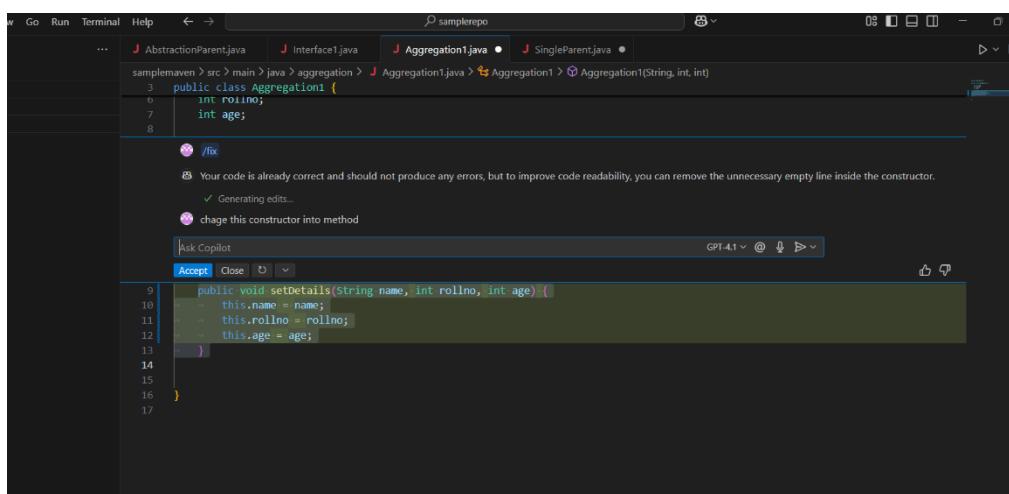
### 1. Select the code

```
samplemaven > src > main > java > aggregation > J Aggregation1.java > Aggregation1 > Aggregation1(String, int, int)
  1 package aggregation;
  2
  3 public class Aggregation1 {
  4
  5     String name;
  6     int rollno;
  7     int age;
  8
  9     public Aggregation1(String name,int rollno,int age) {
 10         this.name=name;
 11         this.rollno=rollno;
 12         this.age=age;
 13     }
 14
 15 }
 16
 17
 18
 19
 20 }
```

### 2. Right click on the code and choose copilot.



### 3. Click on fix



## Conclusion:

GitHub Copilot transforms software development by integrating generative AI into your workflow. From writing new functions to refining legacy code, Copilot can speed up development, reduce cognitive load, and help you focus on solving complex problems.

