

Day - 1

- **Welcome & Introduction**

- Course objectives
- Setup checklist

- **Installing & Setting Up GitHub Copilot**

- IDE integrations (VS Code, JetBrains)
- Configuring Copilot in GitHub account

- **Understanding How Copilot Works**

- LLMs behind Copilot
- Training data sources
- Ethical considerations

- **Copilot in Action – Writing Code with AI**

- Autocomplete demos
- Function generation
- Class structures

- **Prompt Engineering Basics**

- How to write better comments
- Code-context prompting

- **Iterating with Copilot**

- Refining suggestions
- Changing styles or complexity
- Using "/" and natural language

- **Copilot with Git & GitHub**

- Copilot in Pull Requests
- Suggestions in commit messages
- Code reviews with AI

- **Build a Simple App with Copilot**

- Guided project with class, functions, and tests

- **Advanced Prompt Engineering**

- Using examples & templates
- Structuring logic across files
- Asking Copilot “why” or “how”

- **Responsible AI & Limitations**

- Avoiding code vulnerabilities
- Licensing caveats
- Trusting vs verifying suggestions

- **API Integration with Copilot**

- Create REST API endpoints
- Document code with Copilot

- **Copilot for Testing & Debugging**

- Unit test generation
- Generating mocks
- Improving existing code

- **Copilot Chat & CLI (Optional)**

- Using GitHub Copilot Chat (beta)
- Copilot CLI for terminal automation

- **Copilot in DevOps & Team Settings**

- Copilot for YAML, CI/CD, and Infrastructure as Code
- Copilot for documentation and readme generation

- **Real-World Problem with Copilot**

- Group or individual project
- Presentation & walkthrough

- **Closing Remarks & Certification (if applicable)**

- Feedback
- Resource sharing
- Certification/Badge distribution