**🚀 GitHub Copilot: The Vibe Coding Hackathon 🚀**

**Date**: 06-19-2025

**Time**: 9:30 AM - 5:00 PM

**Our Mission**: Code at the Speed of Thought

Welcome to a one-day, hands-on sprint designed to fundamentally change the way you write code. Our objective is to move beyond traditional programming and introduce you to **"vibe coding"**—an intuitive, conversational approach where you and your AI pair programmer, GitHub Copilot, build amazing things together. You'll learn to express your ideas in plain English and watch them transform test logic into executable scripts, turning complex tasks into a creative dialogue.

This hackathon will teach you to master the full suite of GitHub Copilot's generative AI features by mapping each tool to a specific, practical step in the development lifecycle.

**Your AI Toolkit** 🧰

You'll get hands-on experience with the four pillars of GitHub Copilot:

1. **🤖 Code Completion:** The classic "ghost text" that suggests everything from single lines to entire functions as you type.
2. **💬 Copilot Chat – Ask Mode:** Your conversational AI partner for brainstorming, getting explanations, and generating code snippets from scratch.
3. **✍️ Copilot Chat - Edit Mode:** Your surgical tool for refactoring and modifying specific files using your familiar Copilot Chat interface.
4. **🧠 Copilot Chat - Agent Mode:** Your autonomous agent. Give it a high-level goal, and watch it reason, plan, and execute changes across multiple files.

**The Challenge**: Test Plan and Test Scenario of an Existing application

**Details**: The goal of this challenge is to build a Functional/System Test Plan, Test Scenarios (UI, API and DB) and Functional API Automation Tests selenium or similar) generated for the web application. Pick any 1 of the web applications part of the hackathon.

Your mission for the day is to create a test plan and test automation scripts for one or more API and generate Test Scenarios for Web/UI, API and DB. This project is the perfect playground to test every feature in your AI toolkit.

Hackathon Agenda & Missions

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| **Time** | **Mission** | **Primary Copilot Feature & Task Mapping** |
|  |  | Get your environment ready and learn the core concept of "vibe coding." |
| 30 Mins | **Mission 1: Reconnaissance Expedition** | **Feature:** Copilot Chat – Ask Mode  **Pre Requisites:** Clone your Hackathon Repo which has the required templates. <https://github.com/Cognizant-Learning/VibeCoding-Testing-Project> Repository URL  **Task:** Dive into the code. Let Copilot guide you through the codebase, highlighting key components and existing test structures. Document what you discover to set the stage for what's next. Focus on understanding and mapping the landscape.  **Output:** Capture all prompts used in a prompts.mdfile |
| 30 | **Mission 2: Blueprint Assembly** | **Feature:** Copilot Chat – Edit Mode  **Task:** Set the stage. Use Copilot to draft your TestPlan.md, capturing the essence of the application's features and testing needs. Create a solid foundation for your test plan, Test Scenarios, Test cases with a clear structure. Keep it concise and actionable..  **Output:** Test plan captured in TestPlan.md files and continue capturing the Prompts used in prompts.md file |
| 120 | **Mission 3: The Agent Takes Over** | **Feature:** Copilot Chat – Agent Mode  **Task:** Bring it to life and implement the big feature. Use Agent Mode to transform your test plan into detailed test cases, leveraging Copilot to automate the heavy lifting. Generate all three deliverables—Test Plan, Test Scenarios (UI, API), and Automation Test Scripts including Test Data generation.  **Output:** Project folder with all project files and continue capturing the Prompts used in prompts.md file |
| 60 | **Mission 4: Creative Freedom** | **Enhancement & Innovation Task:**  Explore the boundaries of your testing framework and enhance the application with innovative features. Use Copilot to experiment creatively, pushing beyond traditional methods. You have the freedom to innovate, and here are some hints to guide you if needed:  (Hint)   * UI testing script using a tool like Selenium. * Employ Copilot to create scripts that generate synthetic test data. This data should mimic real-world conditions(domain data) and edge cases, enhancing the robustness of your tests without relying on actual production data. * Find a way to take screenshots of the test results * Add Documentation * Go wild!   **Output:** Project folder with all project files and continue capturing the Prompts used in prompts.md file |

**Project Naming Convention**

Participants should create their folder name in specific naming pattern: **usecasename-teamname-empname1-empname2-empname3**

**Eg: Testing-sunrocks-987345-465747-234587**

**Judging Criteria**

* **Edit mode(10%):** Fully utilized Edit Mode with comprehensive TestPlan.md
* **Agent Mode(30%) :** Are all the features implemented as per the challenge without any issues.
* **Prompt Effectiveness(20%):** Creating an effective prompt, especially in the context of guiding AI or eliciting specific information. Prompt should have Instruction, Context, Example, Cue etc, assessed prompts based on the prompt.md file
* **Creativity and Additional Features(30%):** Did you create something that truly showcases the power of AI-assisted development
* **Vibe Coding Style(10%):** Instead of dictating every line, can articulate higher-level intentions or desired outcomes and sculpt the solution based on the internal "vibe," guiding the AI through qualitative feedback