**Lab Exercise 3- Project Bootstrapping Using GitHub Copilot in VS Code**

**Objective**

* Use **GitHub Copilot** to **bootstrap** a new project.
* Generate a **README.md** file with project details.
* Create **initial code structure** with Copilot’s assistance.

**Prerequisites**

* **VS Code** installed.
* **GitHub Copilot extension** enabled.
* **Python** installed (or another language of choice).

**Step 1: Create a New Project in VS Code**

1. Open **VS Code** and create a new folder:

copilot\_project

1. Inside the folder, create the following files:

README.md

main.py

requirements.txt

**Step 2: Generate README.md Using Copilot**

1. Open README.md and type:

# Project Title

1. Press Enter and let **GitHub Copilot** suggest a description.
2. Modify the README to look like this:

# My Copilot Project

This is a sample project bootstrapped using GitHub Copilot.

It includes basic project setup, dependencies, and initial code.

## Features

- Auto-generated README

- Basic Python script

- Requirements file for dependencies

## Installation

```sh

pip install -r requirements.txt

**Usage**

python main.py

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### \*\*Step 3: Generate Initial Python Code with Copilot\*\*

1. Open `main.py` and type:

```python

# A simple Python script to print a greeting

1. Press Tab to accept Copilot’s suggestion.
2. Copilot will generate:

def main():

print("Hello, welcome to my GitHub Copilot project!")

if \_\_name\_\_ == "\_\_main\_\_":

main()

**Step 4: Generate requirements.txt Using Copilot**

1. Open requirements.txt.
2. Type:

# Required dependencies

1. Copilot will suggest:

flask

requests

numpy

**Step 5: Run the Project**

1. Install dependencies:

pip install -r requirements.txt

1. Run the script:

python main.py

1. The output should be:

Hello, welcome to my GitHub Copilot project!

**Lab Summary**

1. Used **GitHub Copilot** to generate a structured README.md.
2. Created an **initial Python script** with Copilot’s help.
3. Defined **dependencies in requirements.txt** automatically.
4. Successfully **bootstrapped a new project** in **minutes**.