

PROJECT REPORT

Computer Science Fundamentals and Career Pathways

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Submitted as part of coursework

Introduction

This project focuses on understanding the fundamentals of Git, a powerful version-control system used by software developers to track changes in code and collaborate efficiently. The screenshots provided show the initialization of a Git repository, configuration of the username and email, and verification of Git status inside Visual Studio Code (VS Code). In addition, the project includes creating a simple Python-based calculator, demonstrating basic programming skills and applying version control to manage the code effectively.

Explanation of Git Commands Used

1. **git init**: Initializes a new Git repository.
2. **git config --global user.email**: Sets global commit email.
3. **git config --global user.name**: Sets global commit username.
4. **git add .**: Stages all modified files.
5. **git status**: Displays the current state of the repository.

Overview of the Python Calculator Project

A basic calculator was created using Python which performs:

- Addition
- Subtraction
- Multiplication
- Division

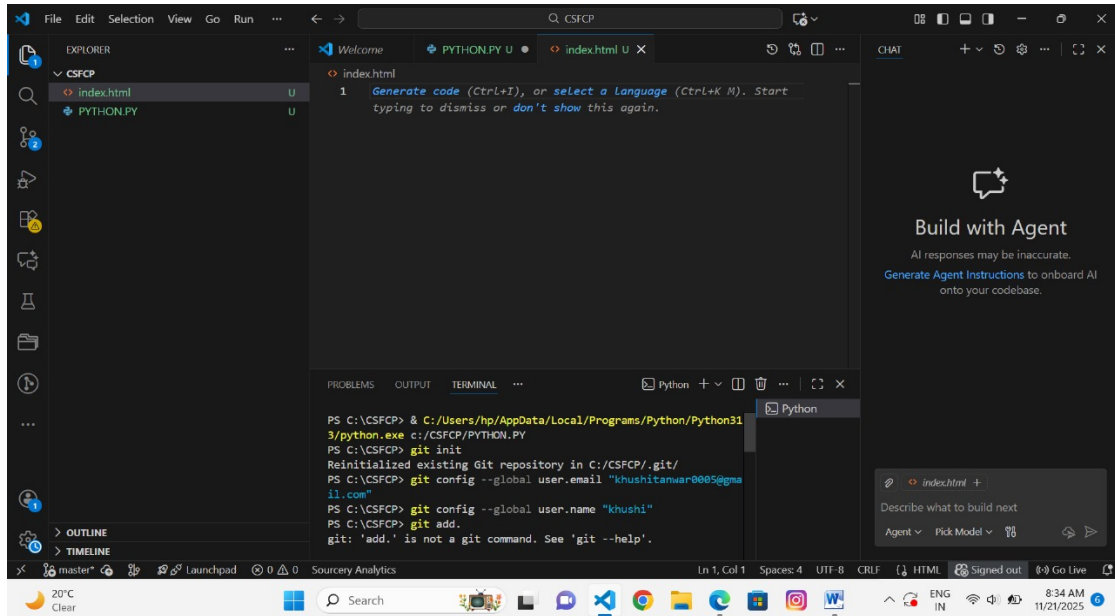
Using Git to Push the Code to GitHub

1. **git add .**
2. **git commit -m "Added calculator project"**
3. **git remote add origin <repository_URL>**
4. **git push -u origin master**

Conclusion

This project demonstrates the use of Git for version control and a simple Python calculator program. These skills build a strong foundation for future growth in AI and Machine Learning.

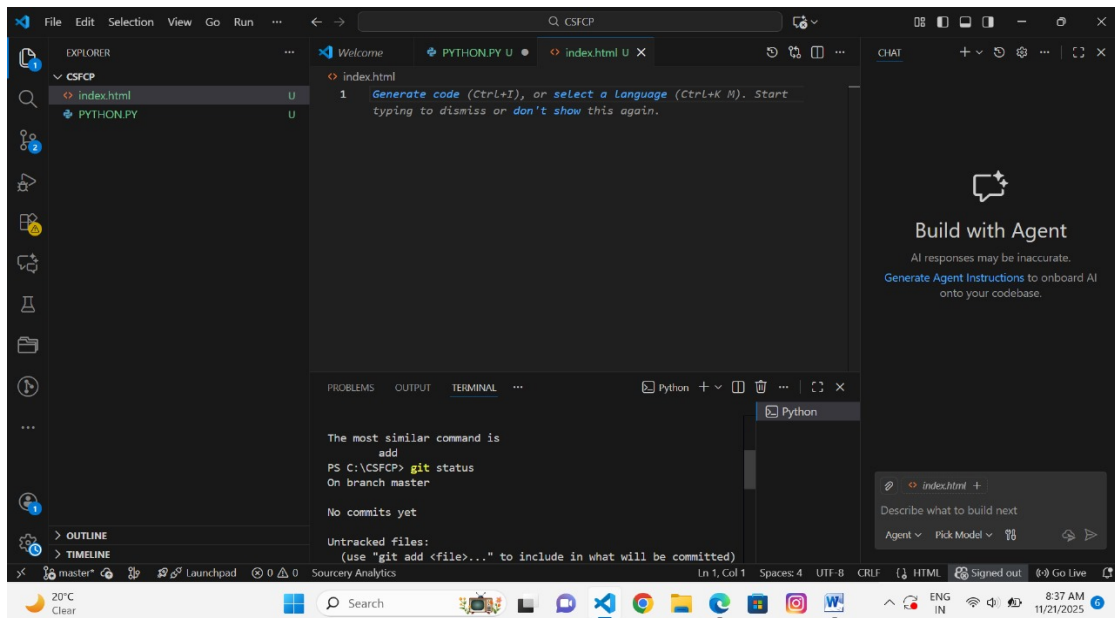
Git Command Screenshots



This screenshot shows the initial setup of a Git repository in a VS Code editor. The Explorer pane on the left shows a project named 'CSFCP' with files 'index.html' and 'PYTHON.PY'. The main editor area displays a welcome message. The terminal at the bottom shows the following commands and output:

```
PS C:\CSFCP> & C:/Users/hp/AppData/Local/Programs/Python/Python313/python.exe c:/CSFCP/PYTHON.PY
PS C:\CSFCP> git init
Reinitialized existing Git repository in C:/CSFCP/.git/
PS C:\CSFCP> git config --global user.email "khushitamwar0005@gmail.com"
PS C:\CSFCP> git config --global user.name "khushi"
PS C:\CSFCP> git add.
git: 'add.' is not a git command. See 'git --help'.
```

The right sidebar shows the 'Build with Agent' panel with a chat interface.



This screenshot shows the output of the 'git status' command in the terminal. The output indicates that there are untracked files and no commits have been made yet.

```
The most similar command is
add
PS C:\CSFCP> git status
On branch master

No commits yet

Untracked files:
  (use "git add <file>..." to include in what will be committed)

index.html
PYTHON.PY
```

The rest of the interface, including the Explorer pane and the 'Build with Agent' sidebar, remains the same as in the first screenshot.