

Theory →

1. What is Git? What is version control?

→ Git is a distributed version control system that helps developers track & manage changes to files in a project. It allows collaboration by enabling multiple users to work on the same project simultaneously.

Version control is a system that records changes to files over time, allowing you to recall specific versions, collaborate efficiently, and manage code evolution.

2. How to use Git for version controlling?

→ To use Git for version control:

- Initialize a repository with 'git init'.
- add files using 'git add'.
- Save changes with 'git commit -m "message"'.
a. Push the changes to a remote repository using 'git push' & pull updates with 'git pull' for collaboration.

FAQ →

1. What is branching in Git?

→ Branching in Git allows us to create independent lines of development within a repository. It enables you to work on features, fixes / experiments, separate

tely without affecting the main codebase, and later merge changes back when ready.

2. How to create and merge branches in Git? Write the commands used.

→ To create a branch:

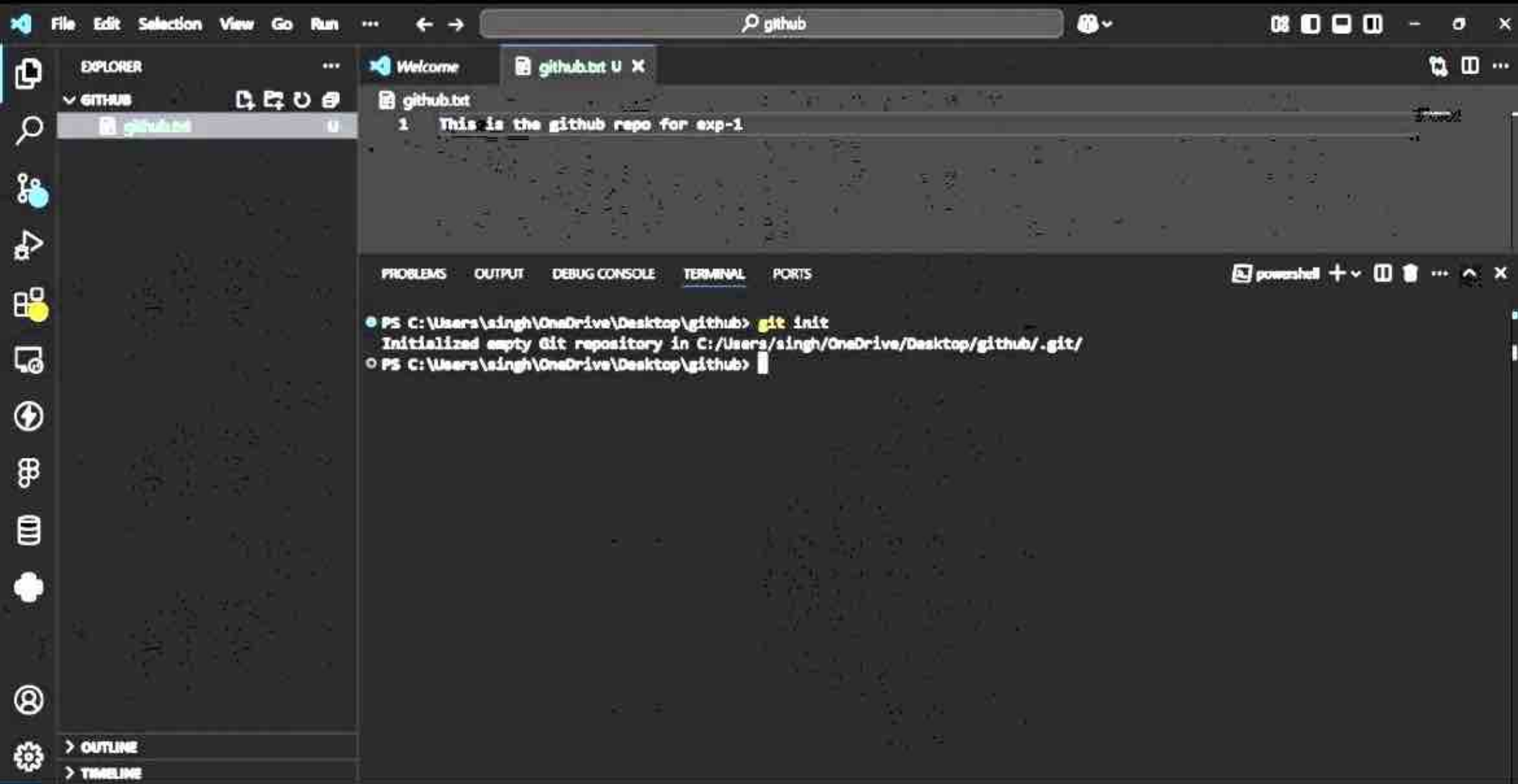
`git branch branch_name`

To merge a branch:

- Switch to the branch you want to merge into →
`git checkout main`

- Merge the branch →

`git merge branch_name`



EXPLORER

▼ GITHUB

github

> OUTLINE

> TIMELINE

Welcome github.txt A X

github.txt

```
1 This is the github repo for exp-1
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

powershell +v

```
PS C:\Users\singh\OneDrive\Desktop\github> git add .
PS C:\Users\singh\OneDrive\Desktop\github>
```

File Edit Selection View Go Run ...

github

github

github.txt

1 This is the github repo for exp-1

terminal

PS C:\Users\singh\OneDrive\Desktop\github> git commit -m "final commit"

[master (root-commit) 4a50069]: final-commit

1 file changed, 1 insertion(+)

creates mode 100644 github.txt

PS C:\Users\singh\OneDrive\Desktop\github>

OUTLINE

TIMELINE

EXPLORER

▼ GITHUB

github.txt

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```
1 This is the github repo for exp-1
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

powerShell + -

```
PS C:\Users\singh\OneDrive\Desktop\github> git remote add origin https://github.com/KIT-MPU-DoEEE/exp-1-git-and-github-jeet-99.git
PS C:\Users\singh\OneDrive\Desktop\github>
```

File Edit Selection View Go Run ...

github

EXPLORER

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Welcome

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1 This is the github repo for exp-1

PROBLEMS

OUTPUT

DEBUG CONSOLE

TERMINAL

PORTS

powershell

PS C:\Users\singh\OneDrive\Desktop\github> git push origin main

error: src refspec main does not match any

error: failed to push some refs to 'https://github.com/MIT-NPU-DoEEE/expt-1-git-and-github-jeet-09.git'

PS C:\Users\singh\OneDrive\Desktop\github> git branch -M main

PS C:\Users\singh\OneDrive\Desktop\github>

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