Topic Already Covered in GitHub 1.0

- Motivations of Using Git & GitHub
- What is Version control system & Version control system Host (Differences Between Git and GitHub)
- Basic Features which are available in Version control system (Version Tracking, Changes Tracking, Merging & Team Collaboration)
- Alternative of Git and GitHub
- Introduction to Bash Terminal
- Differences between Bash Terminal & Command Prompt
- Basic Bash Terminal Command and their uses: pwd, ls, ls -a, dir, mkdir, cat > fileName.extension , type > filename.extension, cat fileName

Git

- git initialisation: git init
- git configuration: git config --global/local user.name “username”
  git config --global/local user.email “user email”
- Differences between local configuration & global configuration
- Introduction to working directory
- Checking the working directory status: git status
- Staging & unstaging of git: git add fileName, git rm --cached fileName.extension
- See the differences when a file is in staging: git diff
- Restoring the changes: git restore .
- Introduction to local repository
- Staging to Local repository, how to commit: git commit -m “commit message”

Topic Will Covered in GitHub 2.0

Git

- Staging to Local repository, how to commit: git commit -m “commit message”
- Necessity of commit message & rules of commit message
- How to see the commit message or all the commit
- Restoring commit (hard HEAD, soft HEAD)
- Introduction to Remote Repository

Git & GitHub

- Creating a repository in GitHub
- Differences between private & public repository
- Local Repository to Remote Repository **(using basic way + using access token)**
- visualisation of Version tracking and changes tracking from GitHub and Bash Terminal
- **Practice session**
  - Basic C code which print Hello world. Push the code to remote repository
  - Changes the file with user input and push to the remote repository

Group Wise Implementation in Git & GitHub

There will be 2 person. One will be the leader who will initiate the project and then add to the repository and in collaboration they will create a simple program. From this group wise implementation, the topic will be covered

- Add collaborator in GitHub repository
- How to clone a private/ public GitHub repository (using basic way + access token)
- Necessity of cloning a repository using access token
- Git pull
- **Branching**
- Necessity of Branching
- **Merging**
  - Fast forward Merging
  - Two way merging

Additional Things (If time is available)

- Introduction to Markdown (Readme.md)
  - Necessity of Readme.md
- git ignore
  - Necessity of git ignore file & implementation

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