Assignment Number 2

Git installation & GitHub Account

Aim: To understand Version Control System, Git installation & GitHub account.

LO mapped: LO1, LO2

Theory:

Version Control System –

A version control system is like a time machine for your files. It helps you keep track of changes you make to your documents, code, or projects. With version control, you can easily see the history of your work, revert to previous versions, and collaborate with others without losing anything. It's a handy tool for organizing and safeguarding your creative journey.

Git –

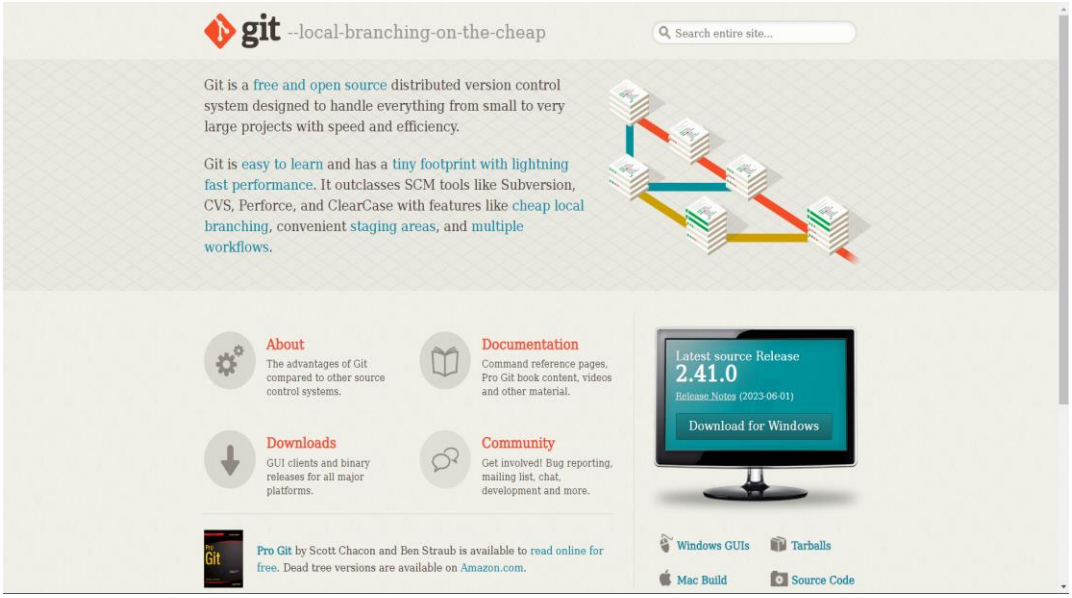
Git is a version control system that enables collaboration among programmers when working on software projects. It allows developers to track changes to their code over time. With Git, each change is saved as a "commit," creating a timeline of the project's development. This makes it easier to manage different versions of the code, revert to previous states if needed, and merge changes made by different team members. Git is widely used in the software development industry and plays a crucial role in ensuring efficient and organized teamwork.

GitHub –

GitHub is a platform for sharing and collaborating on code. It's like a social network for developers, where they can showcase their projects, work together, and contribute to open-source software. With its user-friendly interface, GitHub fosters a vibrant community of coders, making it easy to explore, learn, and build together.

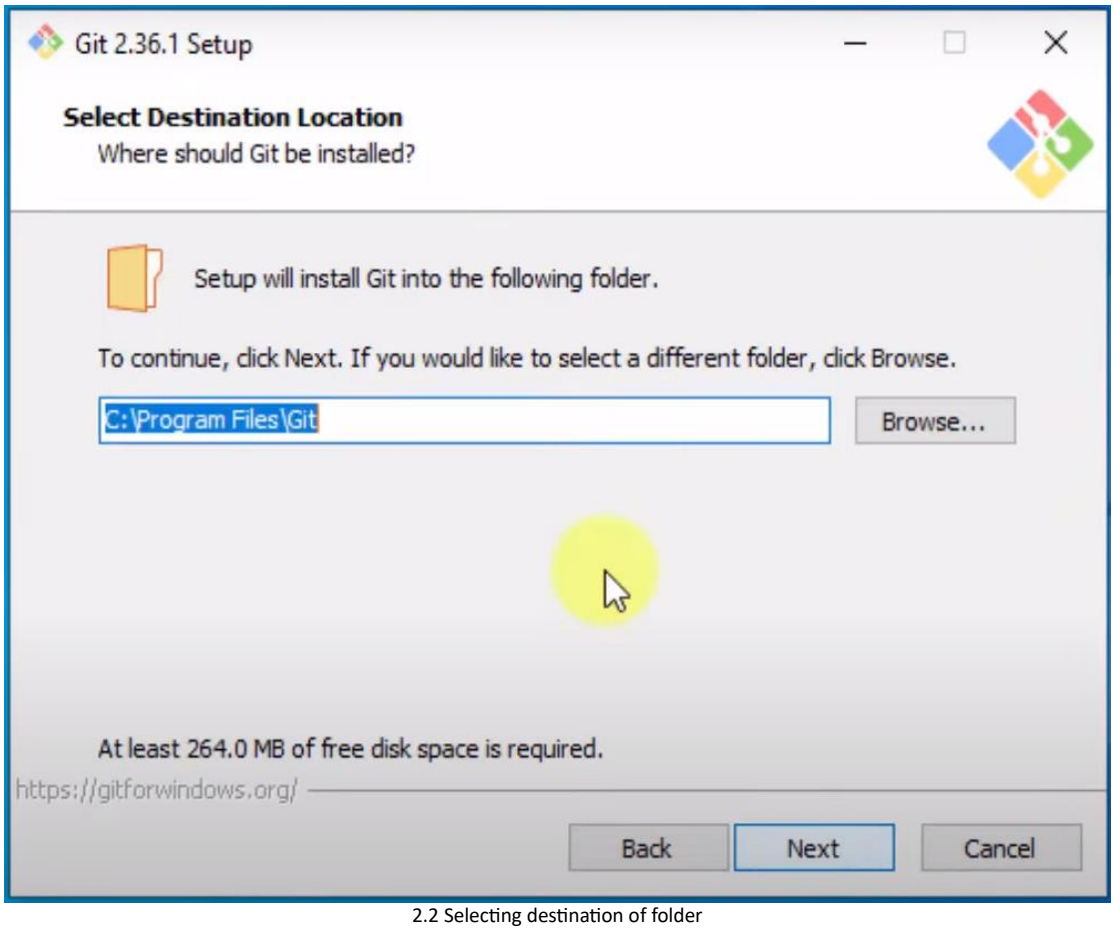
The Steps followed to install git on windows machine are:

1. Visit the official Git website: Go to https://git-scm.com/download/win to download the Git installer for Windows.



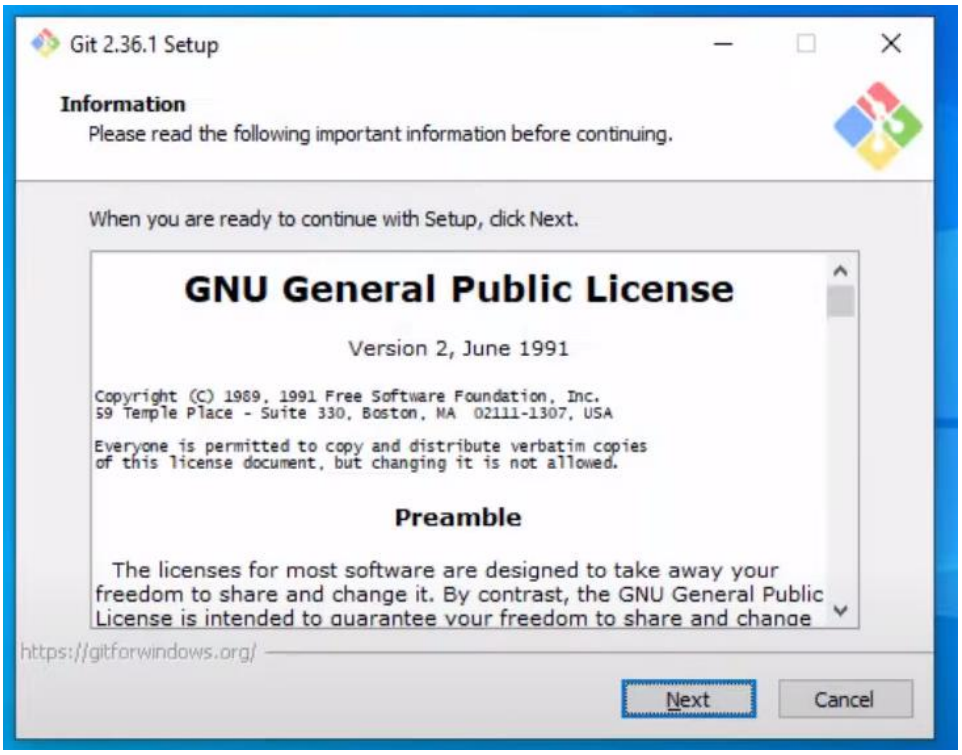
2.1 Open Git official Site

2. Download the installer: Click on the download link for the Windows version to start the download. The installer file will have a name like "Git-x.x.x-64-bit.exe" (x.x.x will be the version number).



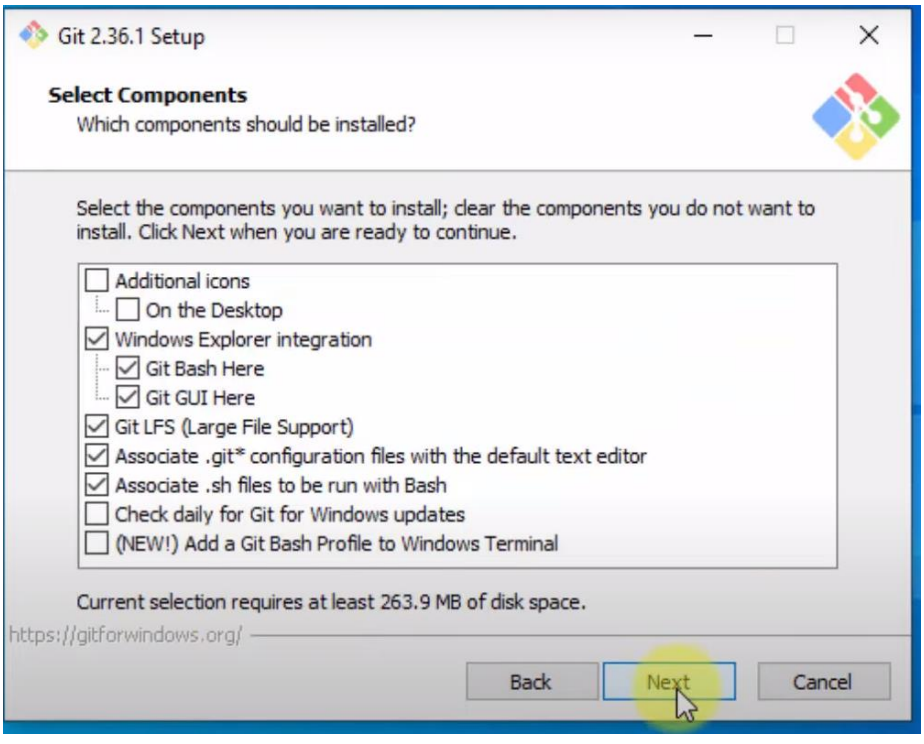
2.2 Selecting destination of folder

3. Run the installer: Once the download is complete, locate the installer file and double-click on it to run it.



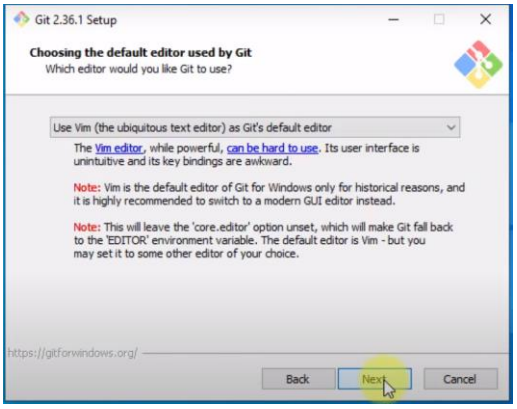
2.3 Git Bash Setup

4. Choose options: During the installation process, you'll be presented with various options to configure Git. For most users, the default options are suitable, so you can click "Next" through the setup.

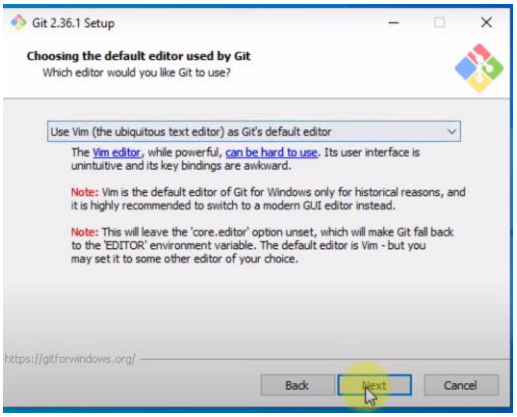


2.4 Git Bash Setup

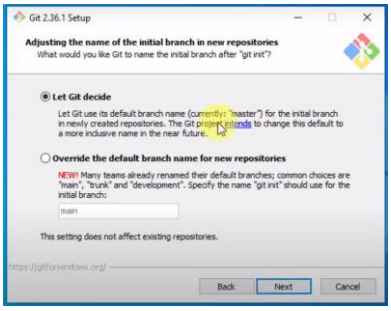
5. Select components: On the "Select components" screen, keep the default components selected and click "Next."
6. Choose the default editor: You can choose your preferred text editor to work with Git. The default editor is usually Vim, but you can select "Nano" or "Notepad++" if you're not familiar with Vim.
7. Adjust your PATH environment: Select the "Use Git from the Windows Command Prompt" option to add Git to your PATH environment, which allows you to use Git from the Command Prompt or PowerShell.
8. Choose HTTPS transport backend: For better performance, you can choose the "Use the OpenSSL library" option.
9. Configuring line endings: Unless you have specific requirements, it's recommended to leave the default "Checkout Windows-style, commit Unix-style line endings" option.
10. Complete the installation: Click "Install" to start the installation process. Once completed, click "Finish."
11. Verify the installation: Open the Command Prompt or PowerShell and type "git --version" to check if Git is installed properly. You should see the version number displayed.



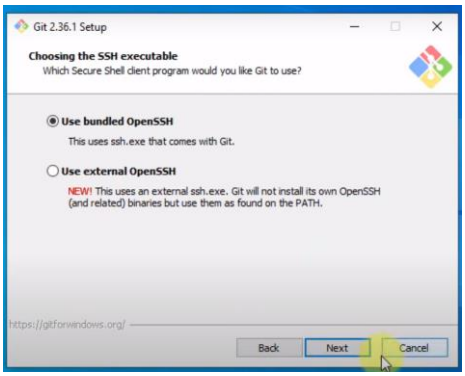
2.5 Git Bash Setup

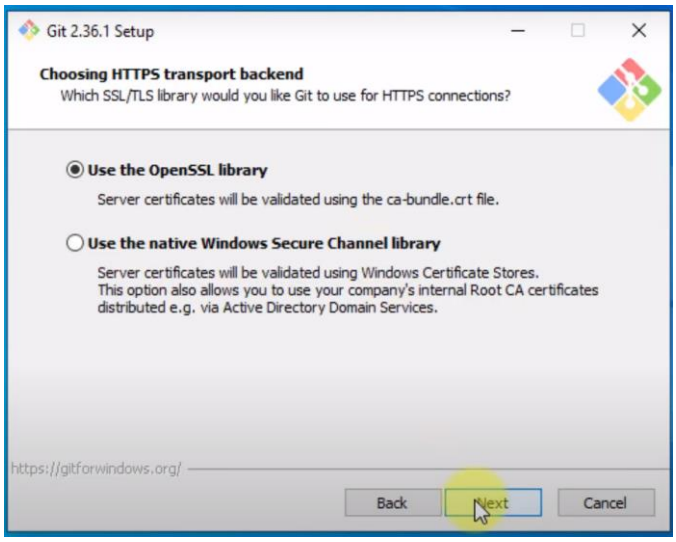


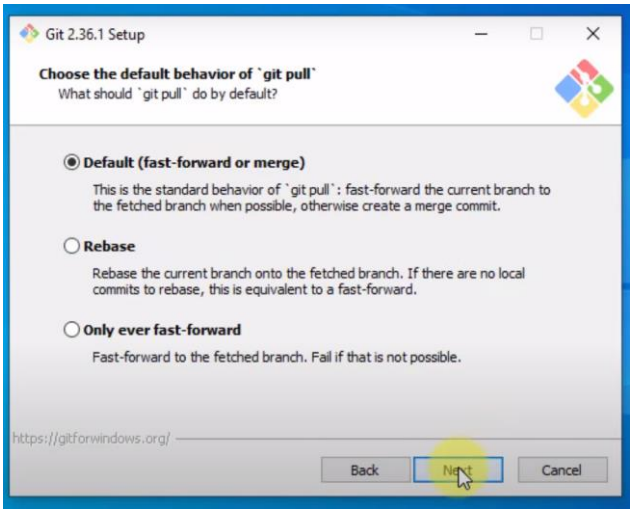
2.6 Git Bash Setup

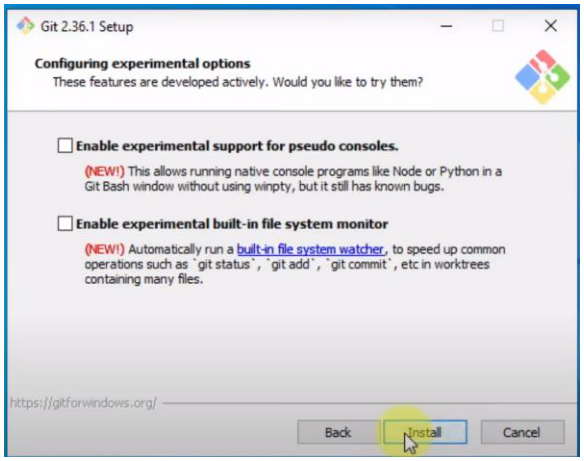


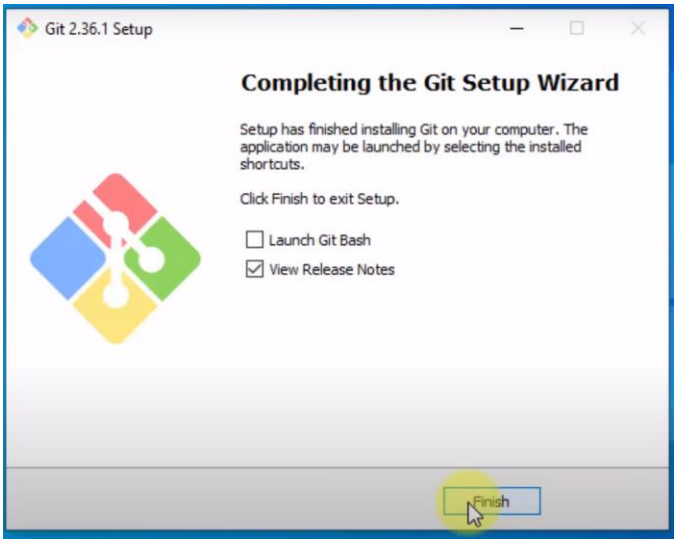
2.7 Git Bash Setup

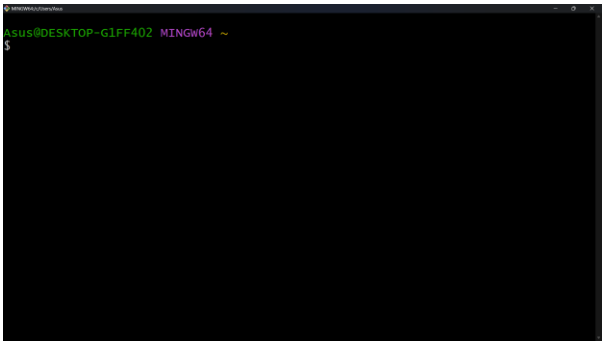


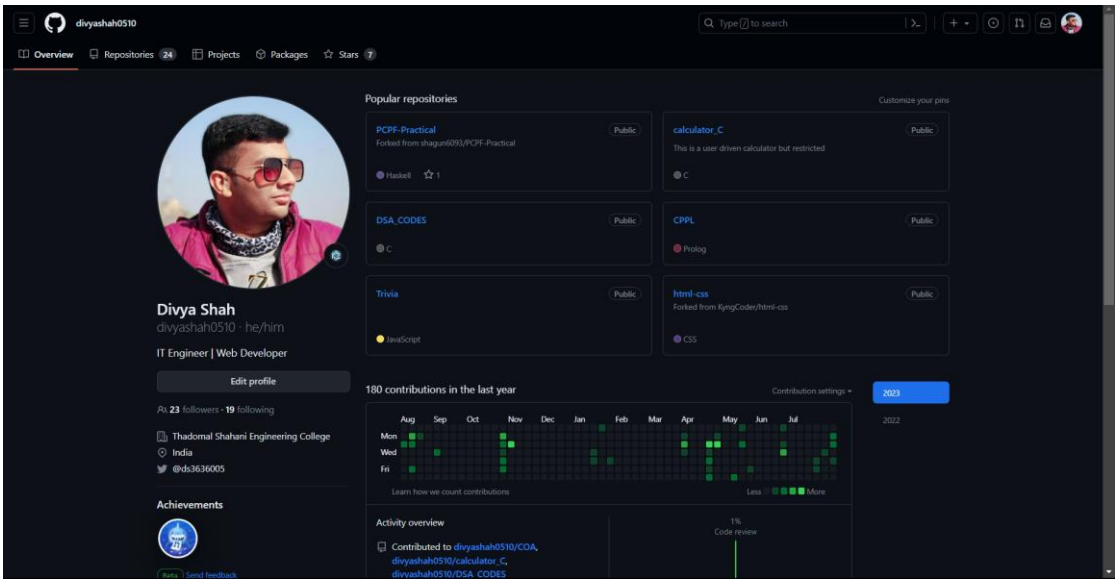



Git 2.36.1 Setup
Choose the default behavior of `git pull`
What should `git pull` do by default?
Default (fast-forward or merge)
This is the standard behavior of `git pull`: fast-forward the current branch to the fetched branch when possible, otherwise create a merge commit.
Rebase
Rebase the current branch onto the fetched branch. If there are no local commits to rebase, this is equivalent to a fast-forward.
Only ever fast-forward
Fast-forward to the fetched branch. Fail if that is not possible.
https://gitforwindows.org/
Back
Next
Cancel


Git 2.36.1 Setup
Configuring experimental options
These features are developed actively. Would you like to try them?
Enable experimental support for pseudo consoles.
(NEW!) This allows running native console programs like Node or Python in a Git Bash window without using winpty, but it still has known bugs.
Enable experimental built-in file system monitor
(NEW!) Automatically run a built-in file system watcher, to speed up common operations such as `git status`, `git add`, `git commit`, etc in worktrees containing many files.
https://gitforwindows.org/
Back
Install
Cancel


Git 2.36.1 Setup
Completing the Git Setup Wizard
Setup has finished installing Git on your computer. The application may be launched by selecting the installed shortcuts.
Click Finish to exit Setup.
Launch Git Bash
View Release Notes
Finish





2.8 After successfully creation of GitHub Account

Conclusion: This assignment helps us understand VCS (Version Control System), how to install git and GitHub on windows machine.