

2. Git Installation

Aim: To Understand Version Control System, Git installation & GitHub Account.

Theory:

1. Version Control System

- Version control - also known as source control or revision control - is an important software development practice for tracking and managing changes made to code and other files. It is closely related to source code management.
- With version control, every change made to the code base is tracked. This allows software developers to see the entire history of who changed what at any given time — and roll back from the current version to an earlier version if they need to. It also creates a single source of truth.
- Version control (or source control or revision control) serves as a safety net to protect the source code from irreparable harm, giving the development team the freedom to experiment without fear of causing damage or creating code conflicts.
- If developers code concurrently and create incompatible changes, version control identifies the problem areas so that team members can quickly revert changes to a previous version, compare changes, or identify who committed the problem code through the revision history. With a version control system (VCS), a software team can solve an issue before progressing further into a project. Through code reviews, software teams can analyze earlier versions to understand the changes made to the code over time.
- Depending on a team's specific needs and development process, a VCS can be local, centralized, or distributed. A local VCS stores source files within a local system, a centralized VCS stores changes in a single server, and a distributed VCS involves cloning a Git repository.

2. Benefits of version control

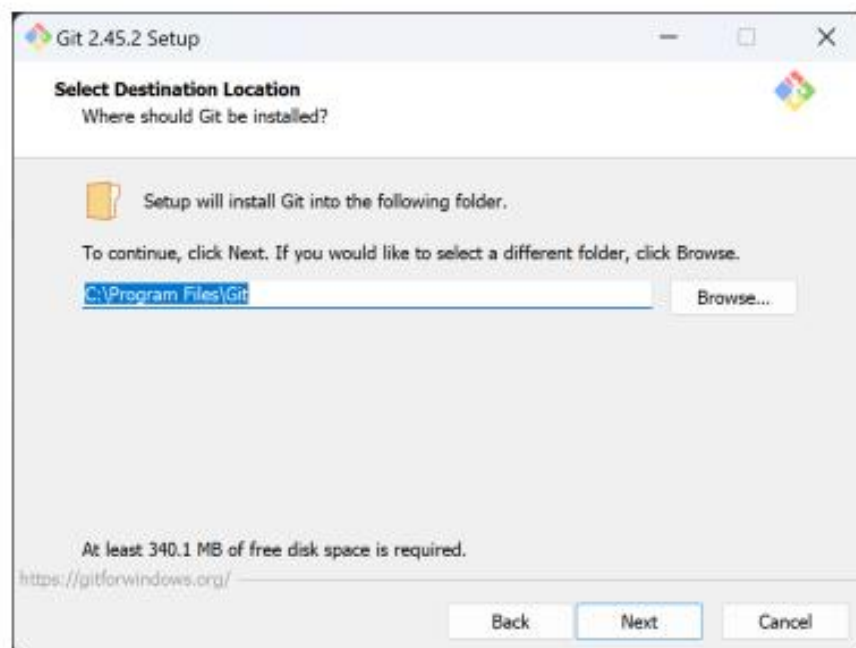
- Quality: Teams can review, comment, and improve each other's code and assets.
- Acceleration: Branch code, make changes, and merge commits faster.
- Visibility: Understand and spark team collaboration to foster greater release build and release patterns. Better visibility improves everything from project management to code quality.

3. Installation Process:

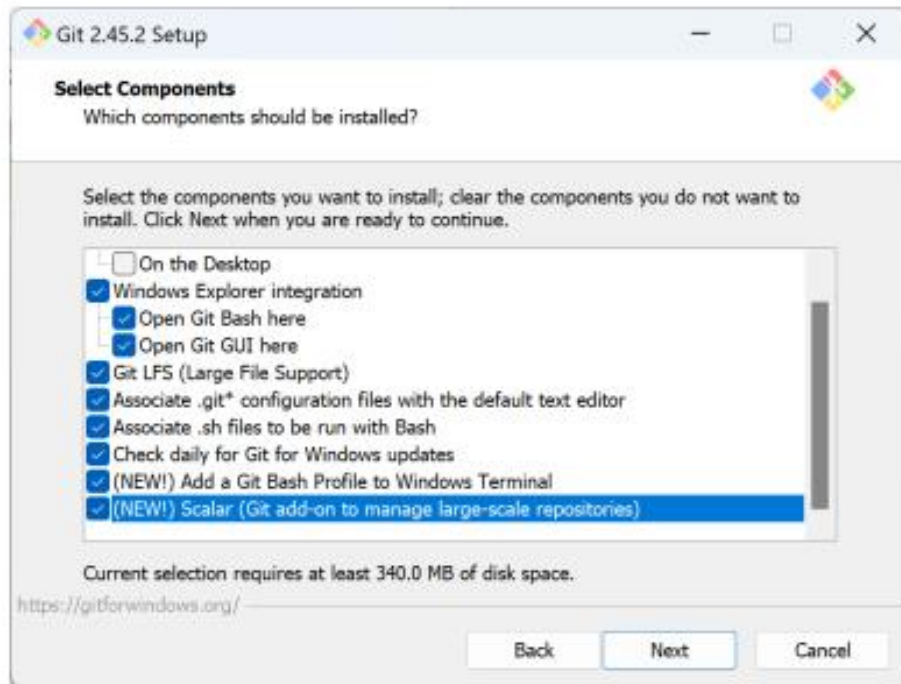
Step – 0 : Click Next.



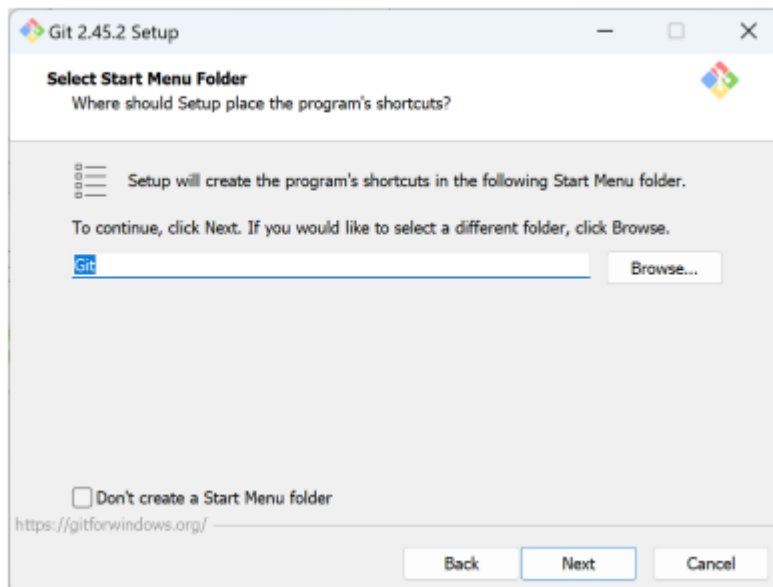
Step – 1: Select the file path for installation.



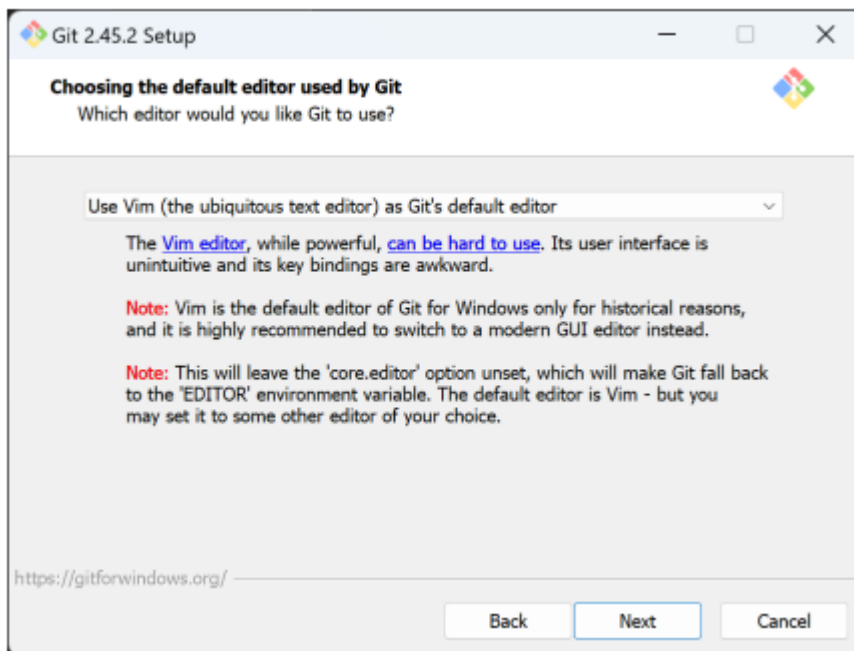
Step – 2: Select the required components for installation.



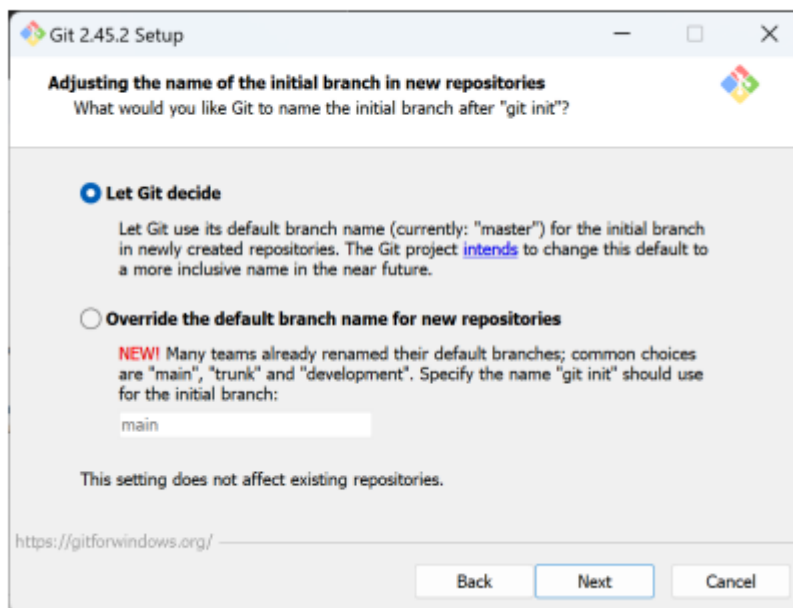
Step – 3: Select the folder name for setup.



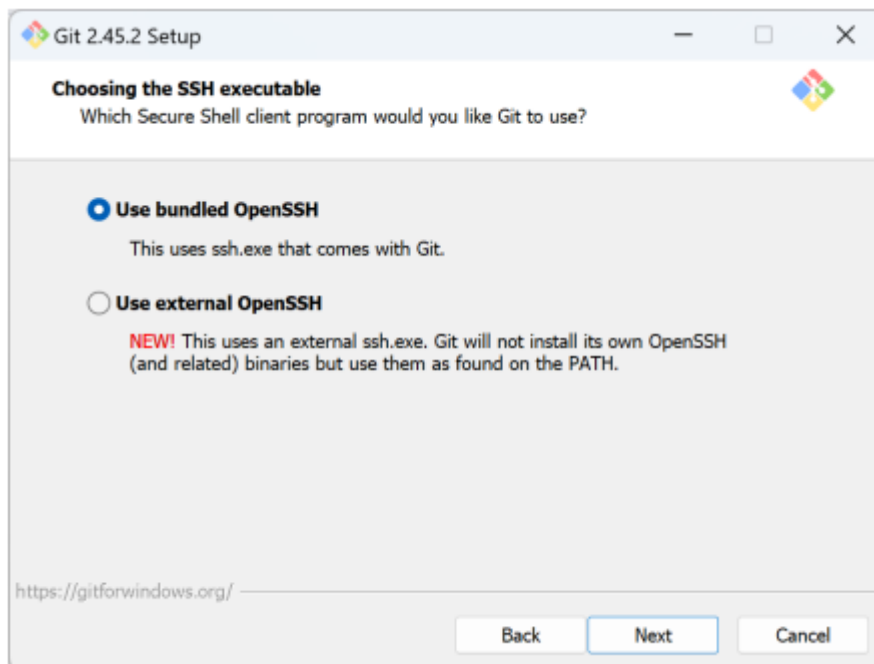
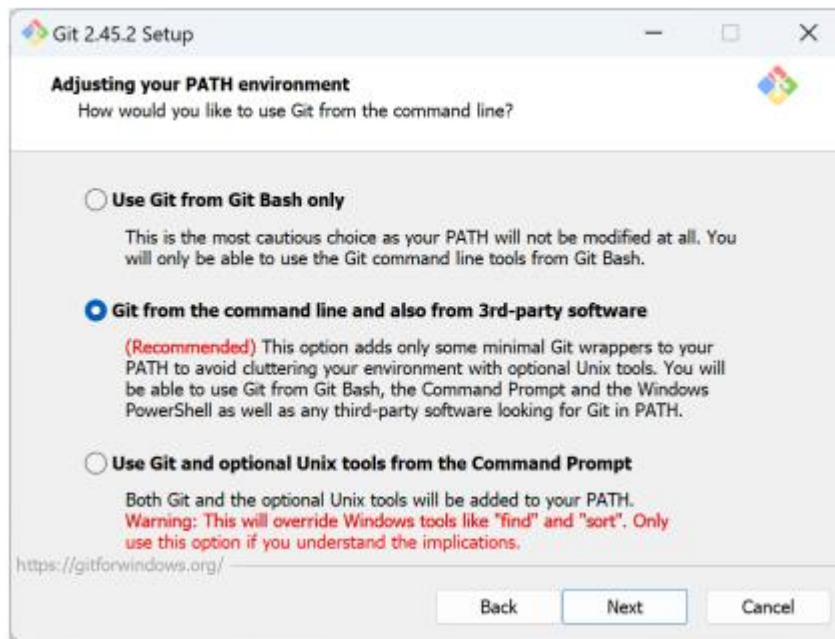
Step – 4: Select the default text editor for using Git.

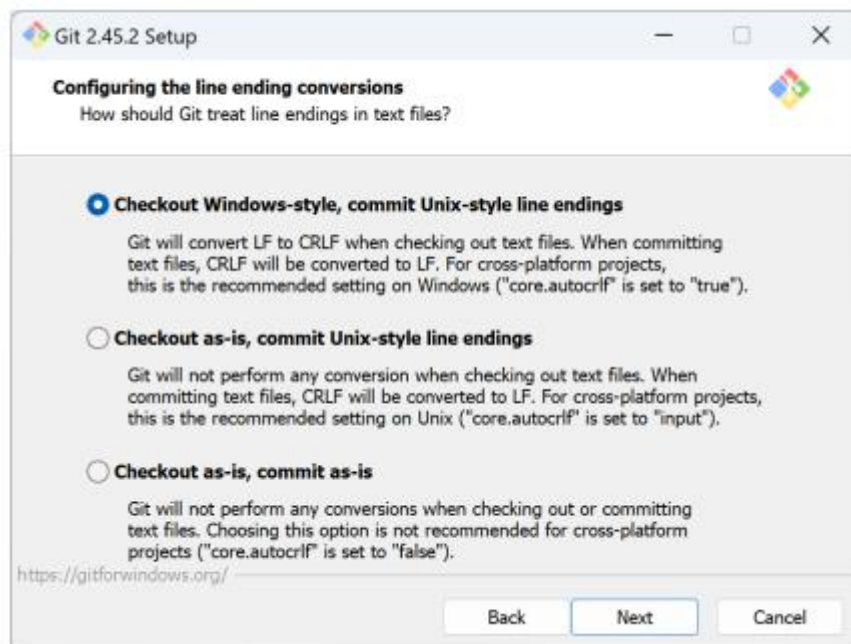
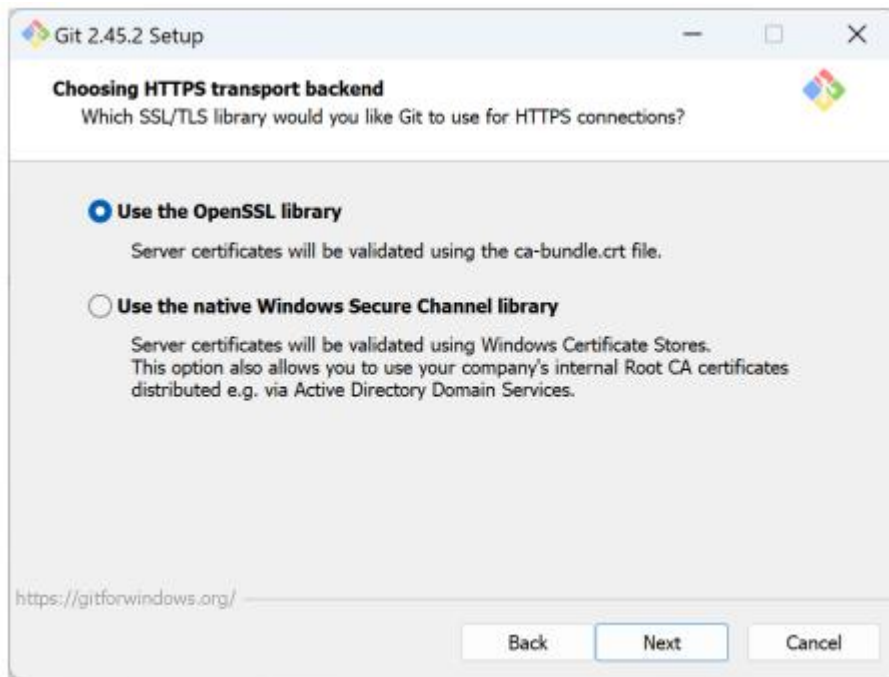


Step – 5: Setup required formats.

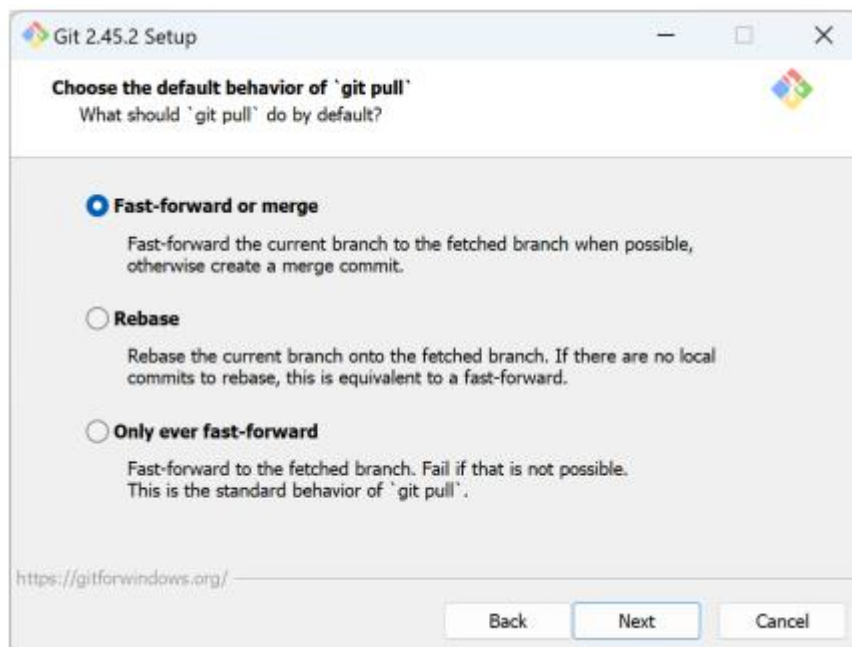
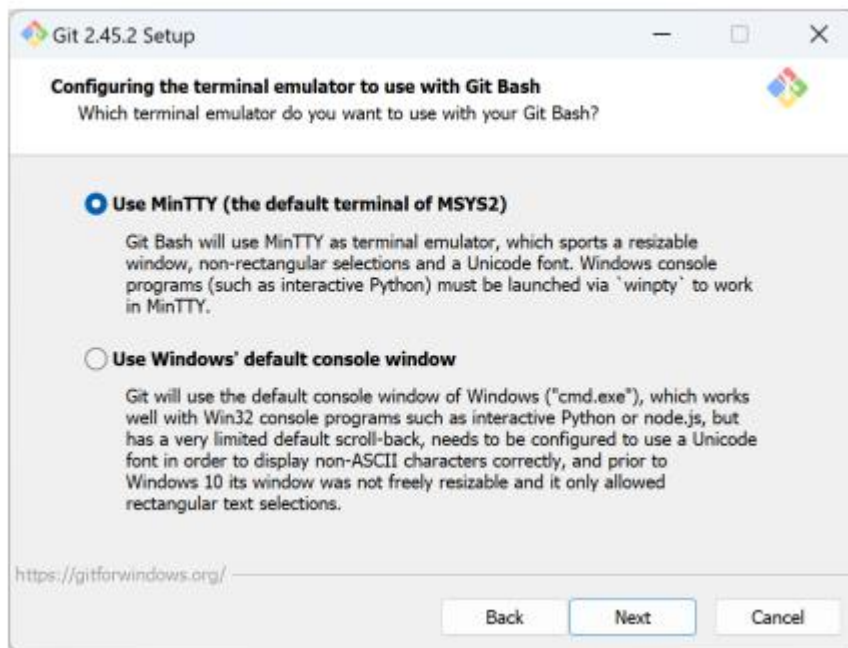


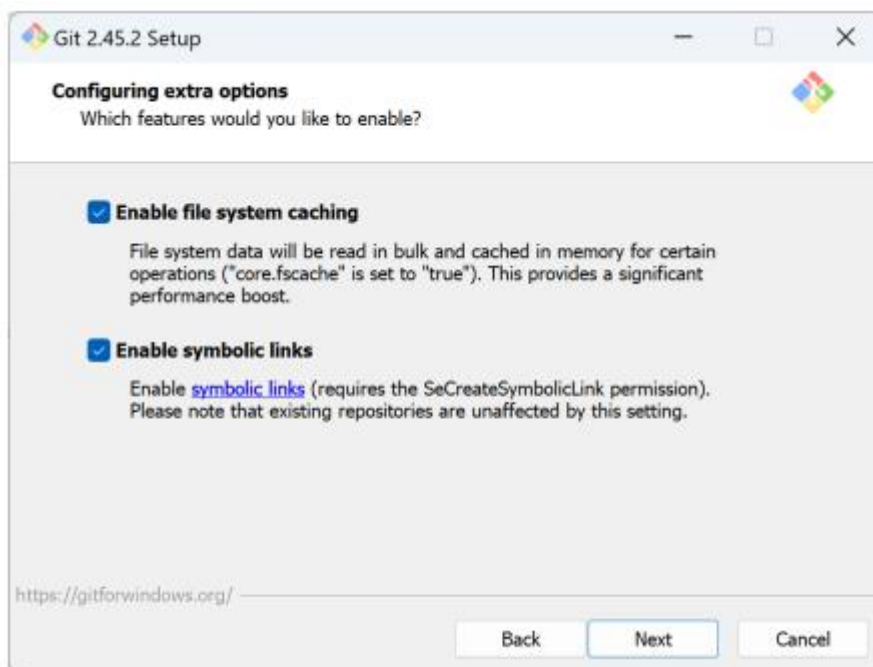
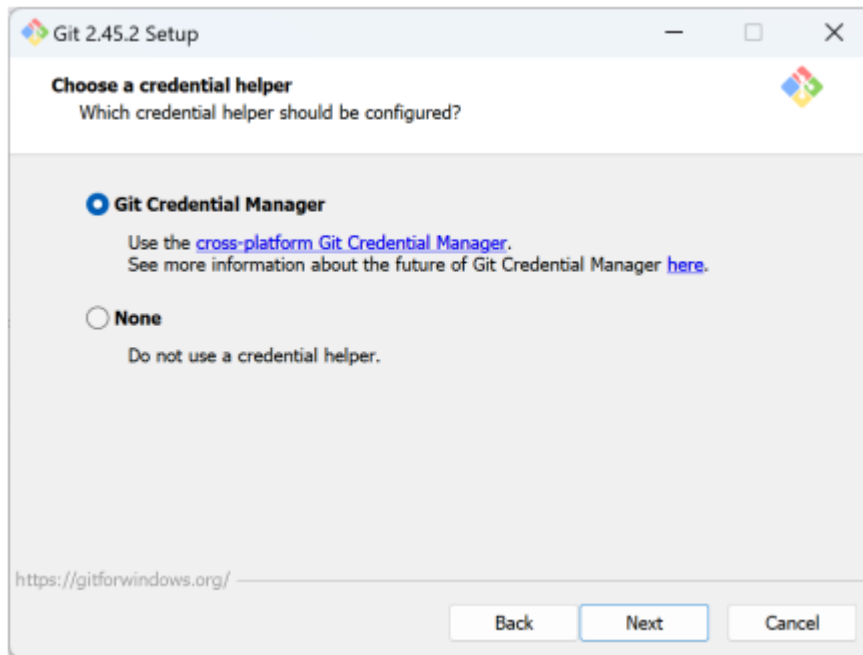
Step – 6: Authorise necessary permissions.

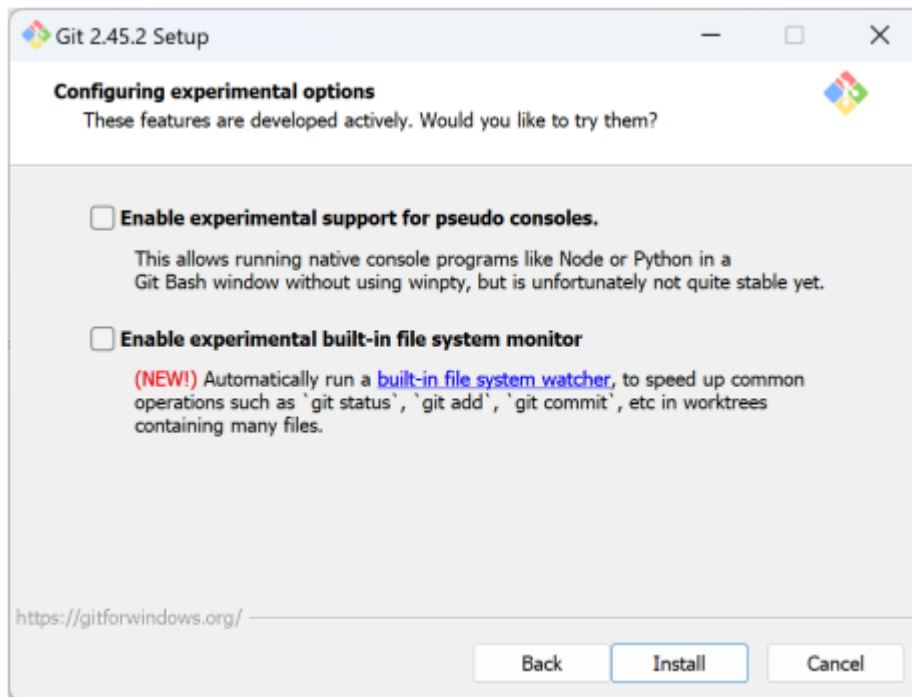




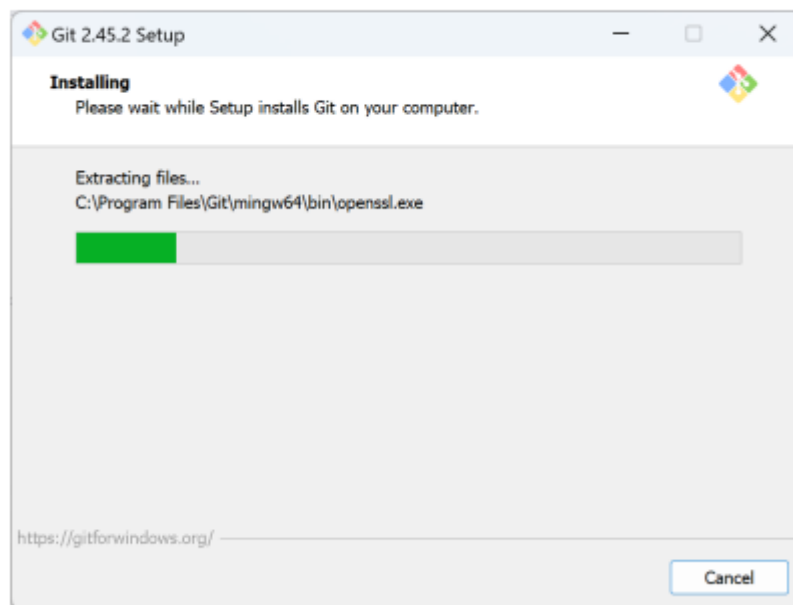
Step – 7: Configure the BASH terminal.



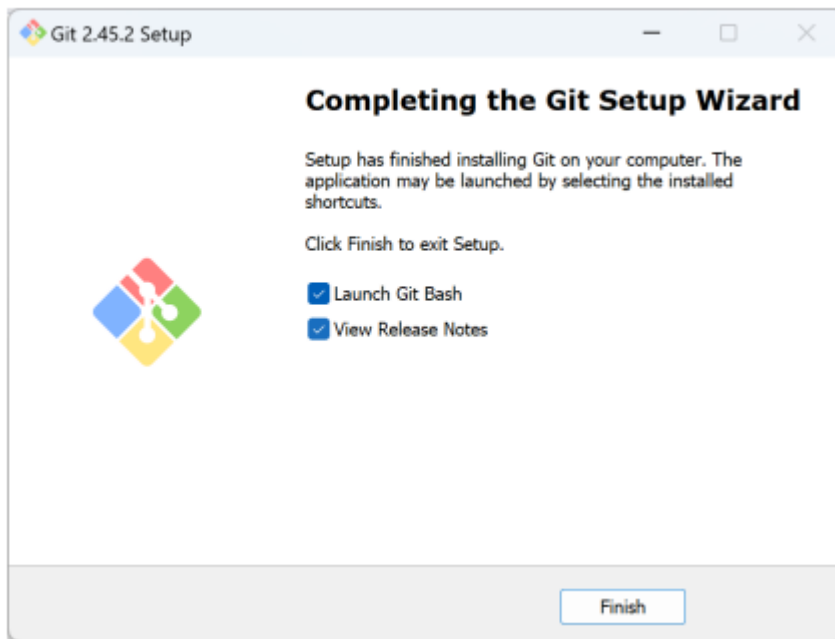




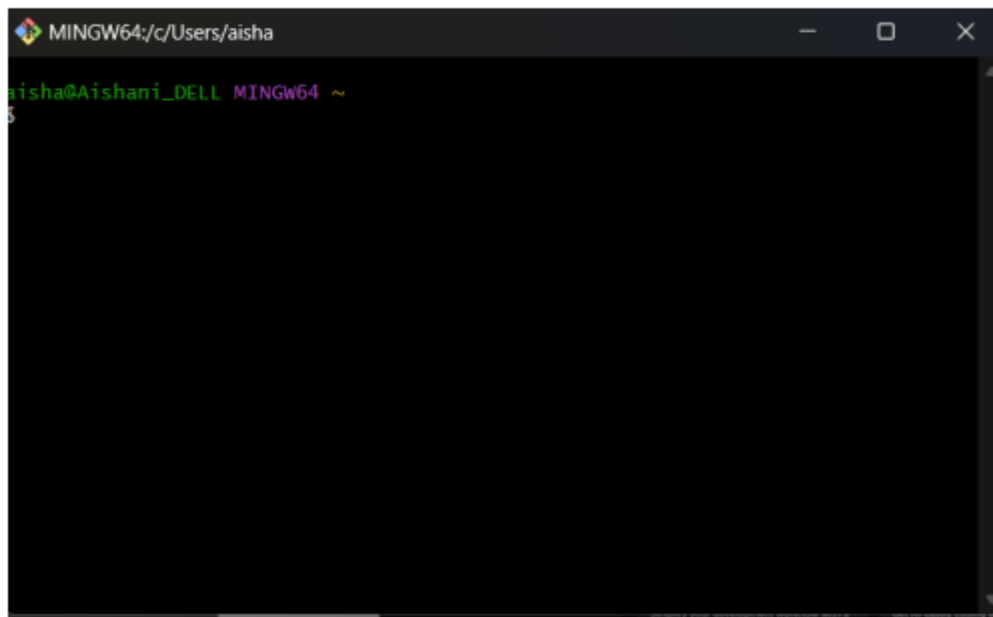
Step – 8: Click Install.



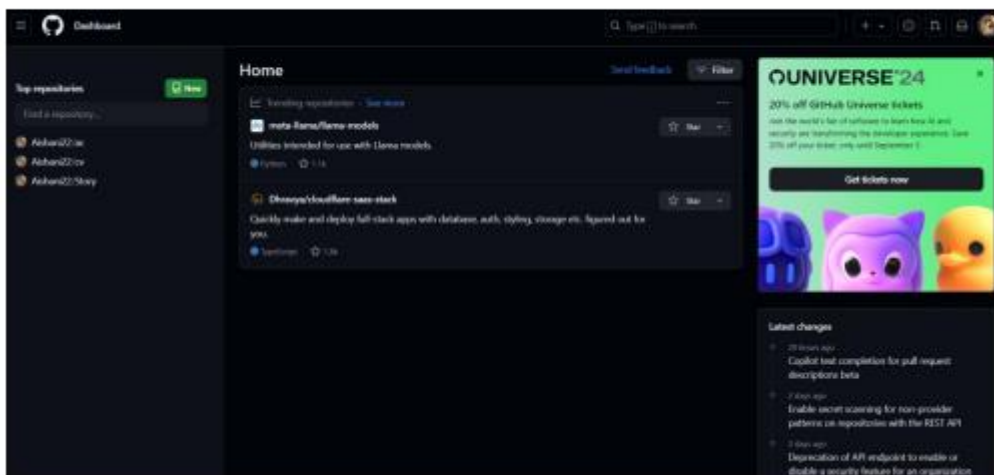
Step – 9: Setup Complete.



Step – 10: Launch Git Bash.



GitHub Account:



Conclusion: Basic knowledge regarding Git BASH installation and Version Control System to effectively track changes augmented with Git and GitHub.

LO - 2: To obtain complete knowledge of the “Version Control System” to effectively track changes augmented with Git & GitHub, is achieved