Course Name	Collaboration and Source code management with Git
Required Software	Install below software before the session: 1. Gitbash 2. Sign up on GitHub with your personal Email Id.

Syllabus	1. Introduction to Version Control systems or Source Code Management Systems
	   a. Centralized Version Control Systems
	   b. Distributed Version Control Systems
	   c. Git and its features
	2. Basic Workflow of GIT
	   a. Local Repository
	   b. Remote repository
	   c. Index or Staging area
	   d. Working directory
	   e. Concept of Origin, Branch, Master, HEAD
	3. GIT - Basic Commands VS GUI Usage
	   a. Working with Local Repositories
	      I. Adding and removing changes to Staging area
	      II. Adding changes to Local Repository
	      III. Adding changelog messages
	      IV. Remove changes from Local repository
	      V. Appending more changes
	      VI. Viewing history and change logs
	   b. Working with Remote Repositories - on Gitlab
	      I. Cloning Remote Repositories
	      II. Pushing changes from Local Repository to Remote Repository
	      III. Undo Changes to Remote Repository
	      IV. Importance and need of. gitignore file
	4. GIT – Branching model
	   a. Branching
	      I. Creating a Branch and switching to Branches
	      II. Pushing new Branch to Remote Repository
	      III. Deleting Local and Remote Branches
	      IV. Viewing differences between branches
	      V. Updating Local Branches with Remote Changes
	   b. Merging
	      I. Merging Branches
	      II. Merge Conflicts and Conflict Resolution
	      III. Concept of Rebase and Rebasing a Branch
	   c. Tags
	      I. Tagging a Branch
	      II. Pushing a local Tag to Remote Repository
	      III. Deleting Local Tags and Remote Repository
	   d. Concepts of Patches
	      I. Generating a patch
	      II. Applying a patch.
	   e. Pull Request for Synchronization
	      I. Concept of pull request
	      II. Generating pull requests
	      III. Reviewing the changes

Learning Resources	Git & GitHub Crash Course for Beginners [2026] GitHub Foundations - DataCamp Learn Git cheat sheet	Atlassian Git Tutorial Basics to Advanced Git Commands	DataCamp git-cheat-sheet.pdf