

Course Name	Collaboration and Source code management with Git
Required Software	Install below software before the session: <ol style="list-style-type: none"> 1. Gitbash 2. Sign up on Github with your personal Email Id.
Syllabus	<ol style="list-style-type: none"> 1. Introduction to Version Control systems or Source Code Management Systems <ol style="list-style-type: none"> a. Centralized Version Control Systems b. Distributed Version Control Systems c. Git and its features 2. Basic Workflow of GIT <ol style="list-style-type: none"> 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 <ol style="list-style-type: none"> a. Working with Local Repositories <ol style="list-style-type: none"> 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 <ol style="list-style-type: none"> 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 <ol style="list-style-type: none"> a. Branching <ol style="list-style-type: none"> 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 <ol style="list-style-type: none"> I. Merging Branches II. Merge Conflicts and Conflict Resolution III. Concept of Rebase and Rebasing a Branch c. Tags <ol style="list-style-type: none"> I. Tagging a Branch II. Pushing a local Tag to Remote Repository III. Deleting Local Tags and Remote Repository d. Concepts of Patches <ol style="list-style-type: none"> I. Generating a patch II. Applying a patch. e. Pull Request for Synchronization <ol style="list-style-type: none"> I. Concept of pull request II. Generating pull requests III. Reviewing the changes
Mandatory Assignment	Complete this course and get the certification (Link to submit certificate will be shared separately) : <ol style="list-style-type: none"> 1. Free Git Course With Certification [2025] 2. Git Version Control for Beginners CodeSignal Learn
End Module Assessment	MCQ based Hacker earth assessment with Camera enabled.
Additional Learning & Practice Resources	Git cheat sheet Atlassian Git Tutorial Basics to Advanced Git Commands DataCamp git-cheat-sheet.pdf