Training Day 5 Report

Date: 01 July 2025

S.T.E.P – Science & Technology Entrepreneurs' Park, GNDEC, Ludhiana

Topic Covered: Forking and Branching in Git & GitHub

On the fifth day of the MERN Stack training, we explored two important concepts in collaborative development — forking and branching. These are essential when working with open-source projects or in team-based environments.

Key Concepts Covered

Forking

- Forking means creating a personal copy of someone else's repository on GitHub.

- It allows you to experiment or contribute to open-source projects without affecting the original repository.

- After making changes in your forked version, you can request the original author to accept those changes using a pull request.

Branching

- A branch is a parallel version of the repository.

- It allows you to work on new features or fixes without changing the main codebase.

- After work is complete, the branch can be merged back into the main branch.

Activities Performed

1. **Understanding Forks on GitHub**

    - Explored how to fork a public repository.

    - Made personal changes to the forked repository.

    - Learned the purpose of pull requests in contributing to other repositories.

2. **Creating and Managing Branches**

   ○ Understood the structure of the default (main) branch.

   ○ Created new branches for separate features or updates.

   ○ Made changes in branches and merged them back into the main branch.

3. **Visualizing Branches and History**

   ○ Observed how multiple branches appear in GitHub.

   ○ Understood the difference between merge and rebase (conceptually)**.**

Task of the Day

● Forked a sample project repository provided by the trainer.

● Created a new branch within the forked repo to add a feature (e.g., updated heading or added a new section).

● Merged the branch into the main branch.

● Practiced submitting a pull request to the trainer's original repository (simulated environment).