Celebal Internship Assignment 8:

1. You have made changes to multiple files in your Git repository and want to stage and commit these changes. What commands would you use to stage all the changes and commit them with a meaningful commit message?

Ans. To stage all the changes and commit them with a meaningful commit message in your Git repository, you can use the following commands:

* 1. Stage all changes
* git add .
  1. Commit with a meaningful commit message
* git commit -m "Your meaningful commit message here"

1. You have committed changes to a wrong branch. How would you move these commits to the correct branch?

Ans. To move commits from the wrong branch to the correct branch, follow these steps:

* 1. **Switch to the correct branch** (create it if it doesn't exist):
* git checkout -b correct-branch
  1. **Cherry-pick the commit(s) from the wrong branch**:
* git cherry-pick commit-hash
  1. **Switch back to the wrong branch**:
* git checkout wrong-branch
  1. **Remove the moved commit(s) from the wrong branch**:
* git reset --hard HEAD~1

Adjust the number (1) to match the number of commits you moved.

1. You want to create a new branch, make changes, and push the branch to the remote repository. Outline the steps you would take to create a new branch, commit changes, and push the branch to GitHub.

Ans : To create a new branch, make changes, and push the branch to the remote repository.

**I. Create and switch to the new branch:**

* git checkout -b new-branch-name

**II. Make your changes** to the files.

III. **Stage the changes**:

* **Stage the changes**:

IV. **Commit the changes**:

* git commit -m "Your commit message"

V. **Push the new branch to the remote repository**:

🡪 git push origin new-branch-name

1. You want to contribute to an open-source project hosted on GitHub.What are the steps you would follow to fork the repository, make changes, create a pull request, and collaborate with the original project?

Ans. **Fork the repository**:

* **Go to the repository on GitHub.**
* **Click the "Fork" button to create a copy of the repository under your GitHub account.**

1. **Clone the forked repository**:

* **git clone https://github.com/your-username/forked-repo.gitcd forked-repo**

1. **Create a new branch**:

* **git checkout -b new-feature-branch**

1. **Make your changes** to the code.
2. **Stage and commit your changes**:

* **git add .**
* **git commit -m "Description of the changes"**

1. **Push the changes to your forked repository**:

**git push origin new-feature-branch**

1. **Create a pull request**:

* Go to your forked repository on GitHub.
* Click the "Compare & pull request" button.
* Provide a meaningful title and description for your pull request.
* Click "Create pull request".

1. **Collaborate and respond to feedback**:

* Engage in discussions and make further changes as requested by the repository maintainers.

1. You are working on a team project, and there are conflicts between your branch and the main branch. How would you resolve these merge conflicts? Provide the necessary commands and steps.

Ans : Step to follow to resolve the conflicts.

* 1. git checkout your-branch
  2. git fetch origin
  3. git merge origin/main
  4. Open the conflict file which need to edit
  5. Edit the files to resolve the conflicts.
  6. Remove the conflict markers after resolving.

**Stage the resolved files**:

* 1. git add resolved-file1 resolved-file2
  2. **Commit the resolved changes**:
* git commit -m "Resolved merge conflicts"
  1. **Push your branch to the remote repository**:
* git push origin your-branch

Task completed.

1. You want to create a feature branch based on the latest changes in the main branch. What commands would you use to create a new branch and automatically switch to it, ensuring it's up to date with the latest changes from the main branch?

Ans : **Fetch the latest changes from the remote repository**:

* 1. git fetch origin

**Checkout the main branch and pull the latest changes**:

* 1. git checkout main
  2. git pull origin main

**Create a new feature branch and switch to it**:

* 1. git checkout -b feature-branch

Replace feature-branch with your desired branch name.

1. You have made a series of commits, but you realize that a change made several commits ago is causing issues in your application. How would you revert to a specific commit, discarding all changes made after that commit?

Ans. To revert to a specific commit, discarding all changes made after that commit, we can use the following command:

* 1. **Reset to the specific commit**:
* git reset --hard <commit-hash>

<commit-hash> with the hash of the commit you want to revert to.

* 1. **Force push the changes to the remote repository** (if needed):
* git push origin HEAD --force

1. You have accidentally deleted a file in your Git repository and committed the change. What commands would you use to restore the deleted file from the previous commit?

Ans . To restore a deleted file from the previous commit, use the following commands:

* 1. **Check out the file from the previous commit**:

git checkout HEAD^ -- path/to/deleted-file

* 1. **Stage the restored file**:

git add path/to/delete/the/file

* 1. **Commit the restoration**:

git commit -m "Restored deleted file"

Replace path/to/deleted-file with the actual path of the file you want to restore.

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**Lakshya soni.**