**GitHub Guide**

**Step-wise Explanation of GitHub Account Creation, File Sharing, and Branching**

1. Visit the GitHub website using your web browser.

2. Click on the "Sign up" button .

3. Fill the details like your username, email address, and password. Enter the required information and click sign up.

4. Complete the Verification.

5. After verification you are ready to login.

2. File Sharing:

1. Log in to your GitHub account.

2. Create a new repository by clicking the "New" button on then create a repository by filling the details like repository name etc.

3. Click "Create repository."

4. your repository has been created now you can add files in it .

a. Drag and drop files from your computer directly into the repository page.

b. you can also use git bash for adding and modifying the files in repository by using commands.

5. After adding files, you ca share the repository wherever you want through providing the link and by sharing your username.

\*\*3. Branching: \*\*

Branching allows you to work on different versions of the code without affecting the main codebase. This is especially useful when working on new features, bug fixes, or experiments.

1. Create a new branch:

a. Go to your repository on GitHub.

b. Click on the branch dropdown (usually displays "main" by default).

c. Type a branch name (e.g., "feature-branch") and press Enter. This creates a new branch based on the latest code in the main branch.

2. Switch to the new branch:

a. On the repository page, click on the branch dropdown.

b. Select the branch you just created (e.g., "feature-branch").

c. The repository page will now display the contents of the selected branch.

3. Make changes:

a. Navigate to the file you want to modify in the selected branch.

b. Click the "Edit" (pencil) icon to make changes directly in the browser or clone the repository, edit the file locally, and push changes to the selected branch.

4. Commit changes:

a. After making changes, select the Commit changes section.

b. Provide a brief description of the changes made.

c. Click on the "Commit changes" button to save the changes to the branch.

Introduction:

In this report, we will explain the process of creating a GitHub account, sharing files on GitHub repositories, and utilizing branching for collaborative development. GitHub is a widely used platform for version control and collaborative software development, providing a seamless environment for developers to work together on projects.

Section 1: GitHub Account Creation

1. Accessing GitHub: To start the process, access the GitHub website (github.com) using a web browser.
2. Account Registration: Click on the "Sign up" button and provide the required information, including username, email address, and password.
3. Email Verification: After registration, GitHub may ask for email verification. Complete the verification process following the instructions sent to the provided email address.
4. Account Creation: Once the email is verified, your GitHub account will be successfully created.

**Section 2: File Sharing on GitHub**

1. Repository Creation: Log in to your GitHub account and create a new repository. Choose a name, description, and privacy setting (public or private) for the repository.
2. Adding Files: You can add files to the repository either by dragging and dropping them directly onto the repository page or by using Git commands to initialize a local repository and push files to the remote repository.

Section 3: Branching in GitHub

1. Branch Creation: GitHub allows users to create branches to work on different versions of the code. Create a new branch from the main branch by providing a unique name for the branch (e.g., "feature-branch").
2. Switching Branches: You can switch between branches to view and work on different versions of the codebase.
3. Making Changes: Navigate to the file you want to modify, make the necessary changes, and commit them to the branch.
4. Merging Changes: Once the changes on the branch are tested and ready, they can be merged into the main branch using pull requests. Create a pull request, review the changes, and merge them into the target branch.

**Conclusion:**

GitHub provides a robust platform for version control, collaboration, and code management. With the step-wise explanations provided in this report, users can easily create a GitHub account, share files, and utilize branching to collaborate effectively on software development projects. This empowers developers to work efficiently as a team, ensuring seamless integration and management of code contributions.