1. GitHub Account Creation:

Go to the GitHub website (https://github.com/) and click on the "Sign Up" button.

Choose a username, provide a valid email address, and create a strong password.

Click on the "Create account" button.

Complete the GitHub questionnaire by choosing your development experience level, the purpose of using GitHub, and any additional preferences.

Verify your email address by clicking on the verification link sent to your email.

2. File Sharing on GitHub:

Create a new repository by clicking on the "New" button on your GitHub account.

Choose a name for the repository, add an optional description, and select if you want the repository to be public or private.

Initialize the repository with a README file by checking the "Initialize this repository with a README" option.

Click on the "Create repository" button.

Option A: Uploading Files Directly:

On the newly created repository page, click on the "Add file" button, and select "Upload files."

Choose the files you want to share and click on the "Commit changes" button to upload the files to the repository.

Option B: Cloning and Pushing Files:

Clone the repository to your local machine using the command: git clone <repository\_url.git>.

Copy the files you want to share into the cloned repository's folder.

Use the following commands to push the files to GitHub:

git add . (to stage all the changes)

git commit -m "Your commit message" (to commit the changes)

git push origin master (to push the changes to the "master" branch)

3. Branching in GitHub:

Branching helps in creating separate workspaces to develop features or fix bugs without affecting the main codebase.

To create a new branch, go to the repository on GitHub and click on the branch dropdown.

Type in the name for your new branch and click on "Create branch."

Alternatively, you can create a branch using the command line locally:

git checkout -b <branch\_name> (creates and switches to the new branch)

Make changes to the files in the branch, commit those changes, and push the branch to GitHub using:

git push origin <branch\_name>

To merge the branch with the main codebase (master/main branch):

Open a pull request (PR) on GitHub from your branch to the main branch.

Review the changes, and if everything looks good, click on the "Merge pull request" button.

Confirm the merge to complete the process.

Report:

Title: GitHub Account Creation, File Sharing, and Branching Guide

Introduction:

The purpose of this report is to provide a step-wise guide on creating a GitHub account, sharing files on GitHub, and using branching for version control in software development. GitHub is a widely used platform for collaborative software development and version control, allowing developers to work together efficiently.

1. GitHub Account Creation:

Detailed steps to create a GitHub account, including choosing a username, providing an email address, and verifying the account.

2. File Sharing on GitHub:

Explaining the process of creating a new repository and initializing it with a README file.

Presenting two options for file sharing: Uploading files directly and Cloning and Pushing files.

Providing step-by-step instructions for each option, ensuring users can share their code and files effectively.

3. Branching in GitHub:

Defining the concept of branching and its significance in collaborative development.

Demonstrating how to create a new branch both through the GitHub interface and the command line.

Elaborating on the process of making changes in a branch and merging it back into the main codebase.

Conclusion:

This report has outlined a comprehensive guide on GitHub account creation, file sharing, and branching. By following the provided steps, users can easily set up a GitHub account, share their files and code with others, and effectively manage version control using branches. GitHub's robust features empower developers to collaborate seamlessly, contributing to the success of software development projects. By leveraging GitHub, developers can streamline their workflows and ensure a more efficient and organized development process.