**Title: Git Version Control Assignment**

Objective: In this assignment, you will learn and demonstrate your understanding of the Git version control system by performing various tasks. This will help you gain practical experience with Git and understand how to use it for managing code and collaborating with others.

**Instructions**:

1. Install Git on your computer if you haven't already. You can download it from the official website: <https://git-scm.com/>
2. Create a new folder on your computer for this assignment.
3. Open a terminal or command prompt and navigate to the folder you created.

**Task 1: Git Initialization and Configuration**

1. Initialize a new Git repository in the folder by running the command **git init**.
2. Configure your Git user name and email using the following commands:

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git config user.name "Your Name" git config user.email "your.email@example.com"

1. Verify your configurations by running **git config --list**.

**Task 2: Create and Commit Files**

1. Create a new text file named "file1.txt" and add some content to it.
2. Run **git status** to see the untracked file.
3. Add the file to the staging area using the command **git add file1.txt**.
4. Commit the file to the repository with a meaningful commit message using the command **git commit -m "Your commit message"**.

**Task 3: Create a New Branch and Merge Changes**

1. Create a new branch named "feature" using the command **git checkout -b feature**.
2. Create a new text file named "file2.txt" and add some content to it.
3. Add and commit "file2.txt" to the "feature" branch with a meaningful commit message.
4. Switch back to the "master" branch using the command **git checkout master**.
5. Merge the "feature" branch into the "master" branch using the command **git merge feature**.

**Task 4: Resolve Conflicts**

1. Modify "file1.txt" in the "master" branch and commit the changes.
2. Switch to the "feature" branch and modify "file1.txt" in a conflicting way.
3. Commit the changes in the "feature" branch.
4. Attempt to merge the "feature" branch into the "master" branch.
5. Resolve the merge conflict by manually editing "file1.txt" and marking the conflict as resolved with **git add file1.txt**.
6. Complete the merge with **git commit -m "Merge feature branch and resolve conflicts"**.

**Task 5: Create a Remote Repository and Push Changes**

1. Sign up for a GitHub account if you don't have one: <https://github.com/>
2. Create a new remote repository on GitHub and follow the instructions to connect your local repository to the remote repository.
3. Push your changes from the "master" branch to the remote repository using the command **git push origin master**.

**Task 6: Clone and Pull Changes**

1. Create a new folder on your computer for cloning the remote repository.
2. Clone the remote repository into the new folder using the command **git clone <repository\_url>**.
3. Make changes to any file in the remote repository using the GitHub web interface and commit the changes.
4. In the new folder on your computer, pull the changes from the remote repository using the command **git pull**.

Submission: Provide a link to your remote GitHub repository and a brief summary of the tasks you completed in a text document or PDF.