Module 3: Working with Remote Repositories

Assignment Solution

Version 1.0

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1. Clone an existing repository on Github created during course and configure your local repo to point to the remote repository

   Solution:

   » Copy the repository location from github Navigate to the directory where we need to clone the repository run the command
   git clone <path to remote repository>

2. Perform some operation like add, remove, modify and finally push your changes to the remote repository

   Solution:

   » Create a new file run the command
   git add <filename>
   » Create few more directories and files inside the directory run the
   git add --all
   » To remove a file run the git rm <filename>
   » To see the difference run the git diff <filename>
   » Finally commit the code to the local repository using the
   git commit -m "commit message"
   To push the code to the repository run the command git push origin master

3. Pull the latest changes from the repository to get the updates from others in to your local repo and merge the changes

   Solution:

   » Pull the changes from the remote repository to the local run the command git pull origin master If there are any conflicts resolve the conflicts and add using the command
   git add <file name>

4. Try fetching the changes and perform the merge to get the difference between the pull and the merge command

   Solution:

   » Fetch the changes from the remote repository using the command
   git fetch origin master
   To merge the changes with the local repo run the command git merge If there are any conflicts resolve the conflicts and add using the command
   git add <file name>

5. Perform some changes and before committing the changes, stash your changes and then pull the changes and finally apply the changes to understand how stashing works

   Solution:

   » Create a new file run the command
   git add <filename>
   » Create few more directories and files inside the directory run the
   git add --all
   » To remove a file run the git rm <filename>
   » To see that the files are present in the staging area and not yet committed run the command
   git status
   » To stash the changes run the command
   git stash -m "stash message"
   » To view the stashed changes run the command
   git stash --list
   » Pull the changes from the remote by running the command
   git pull origin master
   » Now apply the stashed changes by running the command
   git stash pop
   » Now run the git stash --list command to see that the stash list is updated
   » Commit the code by running the command

git commit -m "committing the local changes"

Push the code to the remote repo by running the command git push origin master

6. Create a feature branch and do some file operations in the branch and commit the changes to the branch

   Solution:

   » To create a feature branch run the command
   git checkout -b feature_branch
   » Run the command git branch to see if you are currently pointed to
   feature_branch Perform some file operations as in (5) and commit the changes

7. Merge the changes using the rebase command and finally perform a safe deletion of the feature branch

   Solution:

   » Switch back to master branch by running the command
   git checkout master
   » Make some changes to the file and commit the changes to the master branch
   » To merge the changes run the git command git merge feature_branch
   » If there are conflicts merge the conflicts and commit the changes to the local repository
   » Push the changes to the remote repository by running the command
   git push origin master

8. Create another feature branch and this time after committing the changes to the feature branch, merge the changes using fast forward merge and then delete the feature branch

   Solution:

» To merge using fast forward create a feature branch run the command
git checkout -b new_branch
» Run the command git branch to see if you are currently pointed to feature_branch
» Perform some file operations as in (5) and commit the changes
» Switch back to master branch by running the command

git checkout master

- To merge the changes run the git command git merge new_branch
- In the log message you can see that git merged the changes using fast forward strategy Note that this time it used fast forward since there has no changes done to the master branch since the branch was created and merged
- To delete the branch run the git command
  git branch -d new_branch
- Run the git command
- git branch to see that the new_branch is no more listed