**Mobile Innovations for Global Challenges**

**Assignment 1**

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Q1. What is GitHub? When was it created? Why? By who? What similar platforms exist? Why would you use such a platform? (Answer between 5 and 10 lines)

A1. GitHub is a hosting service that provides a web-based graphical interface for maintaining repositories. Several other services are provided by GitHub which include access control, collaboration and task management, with its flagship functionality being known as “forking”. Forking is basically copying a repository from one account to another. To manage the repository locally, a tool, or Version Control System named Git is provided which enables us to use command line to manage the repositories on our machines.

GitHub was founded by Tom Preston-Werner along with Chris Wanstrath and PJ Hyett.

Some alternative to GitHub are GitLab, Bitbucket, Launchpad and SourceForge.

I use GitHub to manage all my work, whether it is a code, or a document. It is much better to save your work remotely so that you can access it anywhere, anytime, and you never lose it.

Git Tutorial:

Press enter to submit commands

> git init

$ git status

$ git status

$ git add octocat.txt

$ git status

$ git commit -m "Add cute octocat story"

$ git status

$ git add '\*.txt'

$ git status

$ git commit -m 'Add all the octocat txt files'

$ git log

$ git remote add origin https://github.com/try-git/try\_git.git

$ git push -u origin master

$ git pull origin master

$ git diff HEAD

$ git add octofamily/octodog.txt

$ git diff --staged

$ git reset octofamily/octodog.txt

$ git checkout -- octocat.txt

$ git branch clean\_up

$ git checkout clean\_up

$ git rm '\*.txt'

$ git commit -m "Remove all the cats"

$ git checkout master

$ git merge clean\_up

$ git branch -d clean\_up

$ git push

>

Q2. Define the following terms in the context of Git (2 lines maximum):

* Repository
* Commit
* Push
* Branch
* Fork
* Merge
* Clone
* Pull
* Pull request

A2.

* Repository: It is a location which contains all the files, including the previous ones and the ones that are currently being worked upon.
* Commit: This is a command that is used to create a unique ID for every change that is made to a particular file.
* Push: This command sends the changes that you committed, to the remote repository on GitHub.
* Branch: A repository can have multiple branches, each of which has same or different files which can be individually worked upon.
* Fork: It is a repository of some other person’s account that resides on our repository. It is not an original, but a copy.
* Merge: Merge command applies changes to a file, or multiple files from one branch to another.
* Clone: It is a copy of the remote repository that lies on our local machine.
* Pull: This command is used to refresh our repository. It can be used when someone else modifies the remote repository, and we want those changes on our clone too.
* Pull request: These are basically the changes or modifications that are requested by users working on a particular repository. They can request such changes on the discussion platform.

List of Commands used to add username in README file:

* Forked the repository that resides on the link <https://github.com/paceuniversity/courses>
* Cloned the repository on my computer using ‘git clone’ command
* Added my name in the README file
* Used ‘git status’ to check the status of the file after the edit
* Added the file to the staging area using ‘git add’ command
* Used ‘git status’ again to check the status of the file after the edit
* Committed changes using the ‘git commit’ command
* Pushed changes to the remote repository
* Created a pull request on the GitHub website