**LAB1: GITHUB & GIT**

TASK1: Working in GitHub

1) Create a GitHub Account. Then create a new repository(project) with your name and keep it public also initialize a README file for it with description “This is a sample website made for learning understand basic Git features” As we are building a sample web page, we will need a html file so create a file yournameWebpage.html add below code to the file and commit it.

To understand basics of html code visit <https://www.w3schools.com/html/default.asp>

<!DOCTYPE html>

<html>

<head>

<title>Page Title</title>

</head>

<body>

<h1>SMU Telecom</h1>

<p>SMU Rocks!!!</p>

</body>

</html>

Suppose we want to make some changes in the file[Add or Change the heading ] for example we add this line to the above code:

<p>SMU is an expensive school</p>

After editing our file we won’t get a save option but equivalent to it (commit option) we can also add a note associated with it which can help us keep track of the changes we make.

2) Make a branch of the master repository with name Branch1 and make the following changes to the html file (Changes are mentioned in blue) and commit it to that branch and merge this branch to the master repository.

<!DOCTYPE html>

<html>

<head>

<title>Page Title</title>

</head>

<body>

<h1>SMU Telecom</h1>

<p>SMU Rocks!!!</p>

<h2>Link to SMU website</h2>

<p>HTML links are defined with the a tag. The link address is specified in the href attribute:</p>

<a href="https://www.smu.edu/">This is a link</a>

</body>

</html>

In the above code we added second header and a link to SMU site.

3) Now fork a repository from any of your friends account and send a pull request to the original user after making some changes to the file.

<p>SMU does not have a cricket team l</p>

**TASK2: - Working on GIT using your personal Systems**

Open the following link

[https://www.learnenough.com/git-tutorial#sec-our\_first\_commit](https://www.learnenough.com/git-tutorial%23sec-our_first_commit%20) (Links to an external site.)

Based on the Lab Tutorial, complete the lab. Make a word document and paste all the screenshots and your github account name. Try to use all git commands. There are several exercises throughout this tutorial. Answer all of the the exercise questions thoroughly and submit a PDF document with your responses.

Submit this questionnaire as well--

The **Wh rule????**

1. What did you do in this lab?
2. What problems did you encountered?
3. How did you solve this problem?
4. What aspects of the labs were unclear?

Below are some tasks command and explanation for reference

1)For Windows and Mac users you need to install latest version of GIT from the official website

<https://git-scm.com/downloads>

For windows users you need to download **GITBASH:**

which provides an emulation layer for a Git command line experience. Bash is an acronym for Bourne Again Shell. A shell is a terminal application used to interface with an operating system through written commands.

2)Make a git repository on your computer and create a sample html file and perform basic tasks like save the changes and add a comment while committing the file. To identify changes, you make by name and email address change the global configuration status. Then make branches from the master repository make necessary changes and merge it to the master. Perform different Tasks given below

We are going to work on similar files as task1

1. Create a html file named (yourname.html)
2. Check if the repository is a git repository

$git status

NOTE: - It will say untracked file. For new files that are created in our repository we need to stage the file.

1. Staging the file to staging area

$git add <yourname.html> --- these stages the file to staging area

Explanation: -Suppose there are multiple files but we want to commit changes to a particular files, then add command is the way we transfer the files to staging area and when we commit, the changes are made to those files and saved.

1. To save changes made to your file cane be saved by

$git commit -a ---------this commits all the files present in the repository

$git commit . (here dot represent the root folder so it will save all the files present in that folder)

1. One-time global configuration settings

$git config --global user.name "Your Name"

$git config --global user.email [your.email@example.com](mailto:your.email@example.com)

1. To see the changes

$git config –list

1. To see the history of git commits

$git log

1. Push/Pull(To GitHub account)

* push

$git remote add origin url

$git remote -v

$git push origin master

* pull

$git pull origin master

1. Working with the Branches

* To change to different branches

$git checkout <branchname>

* To create new branches

$git branch <name\_of\_your\_new\_branch>

* To merge the branch into master

1. To see differences between two commits

$git diff master