# Lab 3: Git Version Control CSE 2100-001

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Partners: none

#### 1 Objective

Create a BitBucket account and import the course GitHub repository using the BitBucket web interface. Once you have the repository imported into BitBucket, clone it onto your Pi using the *git clone* command. Finally, modify the *hello world* program so that it instead prints "Hello UTA", and push the result to your BitBucket account. Demonstrate your work by running the modified program and displaying the source code on the BitBucket web interface.

#### 1.1 Definitions

- git clone clones repository into a newly created directory, create remote tracking branches for each branch in the cloned repository (visible using git branch -r)
- git push updates remote refs along with associated objects. It pushes/update the changes from the local copy to the remote copy.
- git pull runs git fetch with the given parameters and calls git merge to merge the retrieved branch heads into the current branch
- git add add a file to the tracking so it will actually commit in the repository
- git commit to record some changes to the repository through adding new files or editing files
- **local repository** the repository on which we will make local changes. This local repository is on user's computer.
- ${\bf remote\ repository}\$  the repository on a server on which we pull/push/add/commit changes

**branching** is a feature of Git that allows users to maintain multiple versions of the same source code base without necessarily putting changes into the main production base until users are ready.

touch creates empty files.

nano a GNU text editor

### 2 Question 1

What is the difference between a local repository and remote repository when using Git?

The local repository is the files on the local machine/system which you are testing on. The remote repository is the files on the server which we would push/pull/add/commit to.

#### 3 Question 2

What is the main drawback to using GitHub vs BitBucket to host your own personal projects?

GitHub only offers public repository (not private), while BitBucket provides a private repository with free account.

## 4 Question 3

Name three basic text editors that operate solely via the Linux terminal

Vi and Vim, Emacs, Gedit, and Nano