**What is GIT?**

* GIT is a distributed software version control system.
* Git is a free and open source, designed to handle everything from small to very large projects with speed and efficiency.

**Branch**

* A branch is a parallel version of your Repository
* It is contained within the repository but does not affect the master branch, allowing you to work freely without disrupting the live version
* When you have made changes to your branch, you can merge your branch back into the master Branch to publish your changes

**Clone**

* The Clone is when you clone a remote repository and receive a local copy for your own modification.
* Git will keep track of all your modifications locally.
* With this clone you can edit the files in your preferred editor and use git to keep track of your changes without having to be online.
* It is however connected to the remote version, so that changes can be synced between the two when required.
* You can push your local changes to the remote to keep them in sync when you are online

**Fetch**

* Fetch is a pull without a merge.
* Fetching refers to getting the latest changes from a repository ( either local repository or online repository like github.com )
* Once these changes are fetched you can compare them to your local branches, the code residing on your local machine.

**Merge**

* Merging takes the changes from one branch and place them into another branch
* It can be in the same repository or from a different Fork.
* Merging often happens as part of a pull request which can be thought of as a request to fetch and merge

**Pull**

* A pull is a request to fetch and merge the changes
* When you do a pull the latest changes are merged.
* for instance, if someone has edited the remote file which you are both working on you will want to put in those changes you were local copy so that it is up to date

**Push**

* Pushing refers to sending your committed changes to your master Repository.
* ( Master repository can be a local repository or a remote Repository such as github.com )
* if you want your files to be applied on the remote repository you want to do a push

**Checkout**

* Checkout lets you navigate between branches.
* The checkout command lets you navigate between the branches created by git branch
* Checking out the branch updates the files in the working directory to match the version stored in that branch end it tells git to record all new commits on that branch

**Head**

* HEAD represents your current working directory.
* The head pointer can be moved to different branches
* bags all commits using get check out

**Gitignore**

* To exclude files being tracked by git, git uses a file called .gitignore.
* The file types which need to be excluded are listed in the .gitignore file.
* GIT will ignore the files or file types listed in .gitignore from being tracked.

**Commit**

* A git object, a snapshot of your entire repository compressed into a SHA.

**Staging**

* Before committing the modified contents are moved to the staging area.