Q5) Stages of Git

Three stages of Git

**• Modified:**

So, going back to our example, we saw that, those students have messed up their project. So, under Git we can create a repository, a repository is basically a kind of a directory that contains all the files related to your code. So, in the repository we can write code, and maintain it. Once, the code is written, anyone willing to make some modification can make those changes in their own remote repository. A remote repository is a local copy (one that you create on your local machine) of the original project that is being maintained via Git. So, basically you can make changes to your copy of the project without hampering the original code. This is called Modification, i.e. making some additions to the original project.

**• Staged:**

In the previous section we learnt about modification, now let’s look at the second stage in Git, i.e. staged. So, we saw that we can make changes to the project without hampering the original version, but how do we apply those changes to our remote repository? So, we use the commands in the Git command line — git add. So, this command tracks the new changes and pushes it to the staging area. So, staging area is place prior to the actual implementation of changes, i.e. this area contains all the added files that contain new code, which are ready to be joined to the remote repository. So, all the new files are first pushed to the staging area. This can also be understood with an analogy. We all must have participated in a race or some sort of athletic event. Before, the race begins, we hear three words, Get, Set…, Go! Now, we can think of ‘Set’ as the staging area. So, this is an indication that make yourself ready, as the race is about to start. Similarly, staging area is a place where all the new files are finally ready to be joined to the remote repository.

**• Commit:**

This is the final stage, as this stage finally applies the new changes to the remote repository. Looking at the previous analogy, this is your ‘Go’ position. So, a commit is a set of new files that are being added to a project as part of the modification. Each commit represents the changes made to project in the past, with the details about the time at which commit was made and the author of the code. So, finally when you make a commit, and it gets committed, then this simply means that you have successfully applied a certain modification to the code.