**Summary of Git Session:**

1. **Git and GitHub –** We have seen what is git on very first day, git is referred as software tool that is it’s a software which is open source and GitHub is web-based service. It uses https protocol.
   1. We have configured Git and I hope you remember why we did it. In order to know which user made some changes to respective file.
   2. In order to do commit we will have to config username and email
      1. To configure name git config user.name
      2. To configure email git configure user.email
      3. Above configuration is for current instance but if we want to set it for all then we have seen git config --global user.name and git configure –global user.email
   3. Git init command is used to initialize any folder as local repo. No need other command. As soon as w will use git init then it will become my local repo and whenever I will create a file in it then git will automatically track that file.
   4. In order to add multiple file in staging area we can use
      1. git add .
      2. git add --all
   5. git commit history will never delete automatically.
   6. In order to check commit history, we can use **git log**
   7. git status is used to check current stage of file.
   8. Guys, I hope you have observed, when we clone any project that time we click on clone button to clone it and also while pushing our files on remote repo, we have observed for security purpose GitHub uses **https and ssh.**
   9. While cloning a file from remote repo it means we are cloning it from remote server but this is also possible that remote repo can be a local repo too.
   10. git push –all use to Pushes changes made to all branches to the remote repo
   11. "git remote" command does not provide real time access to remote repositories.
   12. There is a command to see last 10 commands to, you have to search for it.
   13. Simply we can consider the sequence for workflow in GIT

Clone, Modify working copy, Review Changes, Commit

* 1. In git, git configuration information is stored in .gitconfig folder in user’s home directory.
  2. Whichever changes we will do, git can track all of them.
  3. Which files are having **“Untracked file”** status – The files which are newly created or not added them in staging area or not committed.
  4. While working with GIT in local repo, we need local files and resources.

1. **CVCS –** stands for Centralized version control system. It is based on Client-Server architecture.
   1. I hope you remember, we have seen on second day another name for centralized version control system is **source code control**.
2. **DVCS –** stands for distributed version control system. We have already discussed about DVCS working. It’s distributed.
   1. **Benefits of DVCS**
      1. It’s platform independent
      2. It is faster, rather faster than CVCS
3. **Staging in GIT:** We have seen when we create new file in Local repo then it’s untracked in order to put it in staging area then we have to use **git add file-name** command. Which files we can say staged? The files which are added and ready to be committed to remote repository.
4. **Commit:** What is use of commit?

We have used commit n number of times. So, can we conclude commit as a way to track changes made to source code.

**Way to commit: git commit -m “meaningful message”**

1. **Branching and Merging –** 
   1. git branch command is used to Lists all the branches
   2. There are some types of merging.
      1. Fast forward
      2. Squash
      3. rebase