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Que1.. What is Git and what is its purpose?

Ans: [Git](https://www.simplilearn.com/tutorials/git-tutorial/git-tutorial-for-beginner) is a [DevOps tool](https://www.simplilearn.com/tutorials/devops-tutorial/devops-tools) used for source code management. It is a free and open-source version control system used to handle small to very large projects efficiently. Git is used to tracking changes in the source code, enabling multiple developers to work together on non-linear development.

Purpose Of Git:

* Git is used to tracking changes in the source code
* The distributed version control tool is used for source code management
* It allows multiple developers to work together
* It supports non-linear development through its thousands of parallel branches

Que 2. How do you install Git on your computer?

Ans::Download the latest version of git according to operating system 32 bit or 64 bits and type of operating system and install it.

Once installed, select Launch the Git Bash, then click on finish. The Git Bash is now launched.

Check the git version by command $ git –version

Que 3. What is a repository in Git?

Ans: A [Git repository](https://bitbucket.org/product/code-repository) is a virtual storage of our project. It allows us to save versions of our code, which we can access when needed.

Que 4. How do you initialize a new Git repository?

Ans: To create a new repo, use the git init command. git init is a one-time command use during the initial setup of a new repo. Executing this command will create a new .git subdirectory in current working directory. This will also create a new main branch.

Que 5What is the difference between Git's staging area (index) and the working directory?

Ans:Location of staging area is .git/index while working directory is ..

Purpose of staing area is to store changes that want to commit . while purpose ofworking directory is to store files that we are working on.

Stages area is visible to git while working directory is not visible to git

In stages area state of change is staged while in working directory is unstaged.

Que 6. How do you add files to the staging area in Git?

Ans: To add files to staging area, use the command:

git add filename

Que 7. How do you commit changes to the local Git repository?

Ans:

* Open a terminal window and navigate to the directory containing Git repository.
* Use the git add command to add the files want to commit to the staging area. can add all of the changed files in the current directory with the git add . command.
* Use the git commit command to commit the staged changes to local repository.  will be prompted to enter a commit message. The commit message should be a brief description of the changes are committing.
* Once committed changes, can use the git push command to push them to the remote repository.

Que 8. What is the purpose of the git status command?

Ans:

The git status command is used to display the state of the working directory and the staging area. It shows which changes have been staged, which have not, and which files are not being tracked by Git.

Que 9. How do you create a new branch in Git?

Ans: To create a new branch in Git: git branch <branch\_name>

Que 10. How do you switch between branches in Git?

Ans:use the command : Using the git checkout command:

This is the most common way to switch branches. To use it, simply type git checkout followed by the name of the branch you want to switch to

git checkout branchname

Using the git switch command:: This command is a newer alternative to git checkout. It has the same basic functionality, but it is more explicit about what it is doing. To use it, simply type git switch followed by the name of the branch you want to switch to

git switch branchname

Que 11. What is the purpose of the git

* Ans: Git is used to tracking changes in the source code
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