1. What is the difference between pushing and pulling ?

**Push command** refers to the pushing of the local repository content to a remote repository. After a local repository has been modified a push is executed to share the modifications with remote team members.

**Pull command** is used to fetch and merge changes from the remote repository to the local repository. The pull command is a combination of two commands, git fetch command followed by git merge command.  
Git fetch command downloads content from the required remote repository, while Git merge command combines multiple sequences of commits into a single branch.

1. How to initialise a new git repository[ Describe all the steps ] ?

**Step-1**To initialize an git repository, before we need to initialize it which are used to put a source code in SCM tool. So, we need a that command

**git init**

**Step-2**After that command, It creates a .git folder which is an hidden folder. So, we need to prepare all changes into an staging area means we need to add a files on that current folder into an local repository. So, For this we use that command

**git add .**

**Step-3**After that command, It stages all the files into that present directory and its ready to commit that file. So, That area which creates a backup is called commit area. Now, we need to commit the stages files by using that command.

**git commit -m "First commit message"**

**Step-4**Now, Copy the remote repository URL which is provided by GitHub after creating an new Remote Repository in GitHub in public or private access. Now, we will add the Copied URL for your GitHub Repository as remote repository by using that command

**git remote add origin https://github.com/<username>/<remoterepo>.git**

It will add a connection between the local and remote repositories.

**Step-5**At last step we need to pull the files into an remote repository by saving the code in SCM Cloud Tool GitHub through git by using that pull command

**git push -u origin master**

1. What is the use of git clone and how to use it?

Git clone is used to copy an existing Git repository into a new local directory. The Git clone action will create a new local directory for the repository, copy all the contents of the specified repository, create the remote tracked branches, and checkout an initial branch locally.

**git clone https://github.com/<username>/<remote-repo>.git**

1. How to ignore some files/folders from pushing?

Use **.** **gitignore** to select what you don't want to push it up to git server.

* Open Git Bash.
* Navigate to the location of your Git repository.
* Create a *.gitignore* file for your repository.
  + $ touch .gitignore
* Add the entry for the files you want to ignore.
* Run "**git rm -r --cached**"
* Now run "**git add .**"

1. What do you mean by Branch?

A branch is essentially is a unique set of code changes with a unique name. Each repository can have one or more branches. This is the official working version of your project, and the one you see when you visit the project repository at github/ bitbucket

● Which branch should be used to keep deployment-ready code?

Main branch or master branch

● Create a new branch called development from the main branch.

* 1. git branch main
  2. git checkout -b development

● Checkout one more branch deployment from the previous branch.

Select the branch that you want to merge into current branch and choose Merge into Current from the submenu.

● Push different data into both branches.

We can apply already existing commit to another branch using cherry-pick command, and then push both branches using git push origin **branchA** branchB

● Merge data from both branches to the main branch

# create new branch A

$ git checkout -b branchA

$ git commit -am "commit on branch A"

# create new branch B

$ git checkout -b branchB

$ git commit -am "commit on branch B"

$git checkout main

$git merge branchA branchB

$git push

1. How to resolve conflict with merge
   1. Open the conflicting file in your text editor or IDE.
   2. Edit the conflict by either choose one of the two versions of the conflicting line(s), or editing a version containing both updates. Be sure to remove all the delineators notes above from the file.
   3. Once you've saved your changes, commit and push
2. What is rebase and how is it different from merge in git ?

Rebasing is the process of moving or combining a sequence of commits to a new base commit. Rebasing is most useful and easily visualized in the context of a feature branching workflow.

They differ is how it's done. Git rebase moves a feature branch into a master. Git merge adds a new commit, preserving the history.