

# Java With DSA And System Design

Name: Chaitanya K

Assignment : Day 4

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## Assignment Questions

1. How to check if Git is available on your system?
2. How to initialize a new Git repository?
3. How to tell git about your name and email?
4. How to add a file to the staging area?
5. How to remove a file from the staging area?
6. How to make a commit?
7. How to send your changes to a remote repository?
8. What is the difference between clone and pull?

## Answers

### 1. How to check if Git is available on your system?

Git can be checked in windows by searching for "Git" keyword in windows search bar. We can even use 'git - version' command in git bash to check if Git is properly installed/available.

### 2. How to initialize a new Git repository?

A new git repository can be initialized by using the command 'git init'.

### 3. How to tell git about your name and email?

By using 'git config' command, one can convey git about their name and email. Generally we use this command only when we are setting up the setup for the first time in our system.

### 4. How to add a file to the staging area?

A file can be added to the staging area using 'git add <file name>' command.

### 5. How to remove a file from the staging area?

A file can be removed/unstaged from the staging area by using 'git rm -- cached <filename>' command.

### 6. How to make a commit?

A commit can be made by using 'git commit -m <commit message>' command if the files are ready in the staging area to perform commit operation. By adding the file name at the end of the above mentioned command, we can commit only specific file also.

### 7. How to send your changes to a remote repository?

Sending our changes to remote repository involves few steps such as moving the files from local directory to the staging area by using git add command, then the staged files can be committed to the local repository using git commit command, then using git push command, one can push the changes to the remote repository.

Example to push our changes from an existing repository to remote repository:

```
git remote add origin https://github.com/Chaitanya-Kanagala/PWGitSession.git
git branch -M main
git push -u origin main
```

### 8. What is the difference between clone and pull?

1. Git clone is used to clone the repository to the working directory and it copies the complete project to the working directory of the developer. 'git clone <url>' is the command to clone.

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2. Git pull is used to pull the latest changes made in the remote repository to the working directory. 'git pull' command is used to pull the remote repository.