

29/3/22

1) GIT: what is GIT? advantages & disadvantages of git and how to install git?

- It is the distributed version control system for tracking changes in source code during software development. It is designed for coordinating work among programmers.

GIT Commands

git commands.

1) git config

git config --global user.name "[name]"

git config --global user.email "[email address]"

This command sets the author name and email address respectively to be used with your commits.

~~git~~ git config --global user.name "Preethi"
git config --global user.email
"Preethi@gmail.com"

2) git init

Usage: git init [repository name]

It is used to start new repository

3) git clone

git clone [url]

This command is used to obtain a repository from an existing URL

git clone https://github.com/Preethi/git example.
git

4) `git add`

usage: `git add [file]`

This command adds a file to the staging area.

\$ `git add projects`

5) `git add *`

This command adds one or more to the staging area.

6) `git commit`

`git commit -m "[type in the commit message]"`

This command records or snapshots the files permanently in the version history.

7) `git commit -a`

This command commits any files you have added with the `git add` command and also commits any files if we have changed since then.

→ `git commit -a`

on branch master.

8) `git tag`

`git tag [commit ID]`

This command is used to give tag the specified commit.


```
$ git tag b0153  
git tag  
ff2685
```

9) Git push

usage: `git push [variable name] master`.

This command sends the committed changes of master branch to your remote repository.

```
$ git push origin master.
```

User name for "https://github.com": Preethi
Password for "https://Preethi@github.com":

10) `git push [variable name]: [branch name]` This command deletes a branch on your remote repository.

```
git push origin: branch-2  
username for 'https://github.com': Preethi  
Password for 'https://Preethi.com':
```

11) `git merge [branch name]`

This command merges the specified branch's history into the

Advantages of GIT

- Security: Git is designed specially to maintain the integrity of source code.
- Flexibility
- Quality open source project
- Performance: Git performs very strongly reliably when compared to other version control systems.

Disadvantage of GIT

- GIT requires technical excellence and it is slower on windows.
- They have poor GUI and usability.
- GIT doesn't support checking out sub-projects.
- It lacks window support and doesn't find empty folders.
- GIT needs multiple branches to support parallel developments used by the developer.

Features of GIT

- Free and open source
- Scalable
- Creates backups
- Tracks history
- Supports non-linear development
- Branching is easier

Installing git

- Install git using apt-get \$ sudo apt-get update
\$ sudo apt-get install git
- To verify installation -
version : \$ git --version 2.9.2

2. Function command in linux what is function and how it is used

Function is a command in linux which is used to create functions or methods

Using keyword keyword: A function in linux can be declared by using keyword function before the of the function. Different statements can be separated by a semicolon or a new line

```
function name { COMMANDS ; }  
ex: function say-hello  
> {
```

```
    echo Hello, welcome.
```

```
> }
```

```
$ say-hello
```

```
Hello, welcome.
```

Using parenthesis: A function can also be declared by using parenthesis after the name of the function.

different statements can be separated by a semicolon or new line

```
name () { COMMANDS; }
```

```
ex: say_hello()
```

```
{
```

```
  echo Hello, welcome
```

```
  say_hello
```

```
  Hello, welcome
```

Parameterised function:

```
function add
```

```
{
```

```
  a = $1
```

```
  b = $2
```

```
  add = $ ((a+b))
```

```
  echo $add
```

```
  add 3 4
```

```
}
```

\$1 will display the first argument that will be sent and \$2 will display the second argument