UnderStanding Of Git.

1. Create a local repository and initialize it as a git repository

Follow <http://readwrite.com/2013/10/02/github-for-beginners-part-2/>

(OR)

Eg:) 286 mkdir GitProject

287 cd GitProject/

288 ls

289 git init

290 git add .

291 touch readme.txt

292 vi readme.txt #add some contents about this project

293 git status

295 git add .

297 git status

298 git commit -m "readme.txt" #commit to working local directory.

1. Connect your local repository to Github repository

Follow <http://readwrite.com/2013/10/02/github-for-beginners-part-2/>

(OR)

Eg:) git remote add origin https://github.com/valarmathi/GitProject.git

git push -u origin master

1. Add Files in local. Commit to the local working directory and push it to Github.

Eg:) vi GitTest.html

304 ls

305 git status

306 git add .

308 git commit -m "New Git HTML File"

309 git status

310 git push -u origin master

1. Git log gives the details of all the previous commits.

git log

1. Command to get the remote Github details

MBANIT1305889:GitProject valarmathi.kannan$ git remote –v

origin https://github.com/valarmathi/GitProject.git (fetch)

origin https://github.com/valarmathi/GitProject.git (push)

**Note:** we can simply do **git push** to push to the GitHub master branch.

we can simply do **git pull** to update the master GitHub master repo to local repo.

1. git init – initialize a local repo to git repo
2. git status – gives the status of the repo. No. of files in working directory, No. of files that are stages.
3. git add . – add the files from working directory to stage.
4. git commit –m “” – commits the file to local repo.
5. git reset HEAD sindhu.txt – move a file from staged to working directory. (untracked file)
6. To pull a project from Github.

git clone <https://github.com/valarmathi/GitProject>

**Note: We need not initialize a repository as git using “git init” if we clone from GitHub.**

1. {Create GitHub repository from terminal

curl -u 'valarmathi' https://api.github.com/user/repos -d '{"name":"CreateGitHubRepo","description":"This project is to create a git repo from local"}'

You can now push your code to this repo.}

To add or delete the origin from terminal

git remote set-url --add origin <https://github.com/valarmathi/GitBranch.git>

git remote set-url --delete origin https://github.com/valarmathi/GitTestBranch.git

To add multiple remote repos.

git remote set-url origin --push --add <a remote>

git remote set-url origin --push --add <another remote>

git remote add alt alt-machine:/path/to/repo

git remote update

git pull alt master

<https://help.github.com/articles/fetching-a-remote/>

Fetch and Pull Guidelines. PULL = FETCH + MERGE

**WORKING WITH BRANCH**

Clone a Git Branch from the master

**MBANIT1305889:testbr valarmathi.kannan$ git remote -v**

origin https://github.com/valarmathi/GitProject.git (fetch)

origin https://github.com/valarmathi/GitProject.git (push)

**MBANIT1305889:testbr valarmathi.kannan$ git checkout -b Git1**

Switched to a new branch 'Git1'

**MBANIT1305889:testbr valarmathi.kannan$ git clone -b Git1 https://github.com/valarmathi/GitProject.git**

Cloning into 'GitProject'...

remote: Counting objects: 42, done.

remote: Compressing objects: 100% (30/30), done.

remote: Total 42 (delta 17), reused 21 (delta 5), pack-reused 0

Unpacking objects: 100% (42/42), done.

Checking connectivity... done.

Here, Git1 is branch and GitProject.git is remote repo.

**Creating a file in branch**

**MBANIT1305889:GitProject valarmathi.kannan$ touch sindhu**

**MBANIT1305889:GitProject valarmathi.kannan$ ls**

Git1 UnderStanding Of Git.docx sindhu ~$derStanding Of Git.docx

GitTest.html readme.txt testComit

**MBANIT1305889:GitProject valarmathi.kannan$ git status**

On branch Git1

Your branch is up-to-date with 'origin/Git1'.

Untracked files:

(use "git add <file>..." to include in what will be committed)

sindhu

nothing added to commit but untracked files present (use "git add" to track)

**MBANIT1305889:GitProject valarmathi.kannan$ git add .**

**MBANIT1305889:GitProject valarmathi.kannan$ git commit -m "yes"**

[Git1 2e58bfd] yes

1 file changed, 0 insertions(+), 0 deletions(-)

create mode 100644 sindhu

**MBANIT1305889:GitProject valarmathi.kannan$ git push**

Counting objects: 3, done.

Delta compression using up to 8 threads.

Compressing objects: 100% (2/2), done.

Writing objects: 100% (3/3), 261 bytes | 0 bytes/s, done.

Total 3 (delta 1), reused 0 (delta 0)

To https://github.com/valarmathi/GitProject.git

1138695..2e58bfd **Git1 -> Git1**

**NOTE:** If you need to make sure that you’re pushing to correct branch, use the below command.

**git push –u origin git1**

**MERGE BRANCH TO MASTER**

**MBANIT1305889:GitProject valarmathi.kannan$ git checkout master**

Branch master set up to track remote branch master from origin by rebasing.

Switched to a new branch 'master'

**MBANIT1305889:GitProject valarmathi.kannan$ git pull origin master**

From https://github.com/valarmathi/GitProject

\* branch master -> FETCH\_HEAD

Current branch master is up to date.

**MBANIT1305889:GitProject valarmathi.kannan$ git merge git1 –m “merge”**

Merge made by the 'recursive' strategy.

sindhu | 0

1 file changed, 0 insertions(+), 0 deletions(-)

create mode 100644 sindhu

**MBANIT1305889:GitProject valarmathi.kannan$ git push**

Counting objects: 2, done.

Delta compression using up to 8 threads.

Compressing objects: 100% (2/2), done.

Writing objects: 100% (2/2), 296 bytes | 0 bytes/s, done.

Total 2 (delta 1), reused 0 (delta 0)

To https://github.com/valarmathi/GitProject.git

9217984..3188389 master -> master

**MBANIT1305889:GitProject valarmathi.kannan$ git branch**

Git1

\* master

To move from master to branch, use the below command

MBANIT1305889:GitProject valarmathi.kannan$ cd GitProject/

MBANIT1305889:GitProject valarmathi.kannan$ ls

**Git1**  UnderStanding Of Git.docx sindhu

GitTest.html readme.txt testComit

Git1 is the branchname. Whatever you do here will be pushed to branch only.

**CLONE A REPOSITORY TO A DIFFERENT FOLDER**

**MBANIT1305889:GitProject valarmathi.kannan$ git branch**

Git1

\* master

**MBANIT1305889:GitProject valarmathi.kannan$ git checkout -b** GitTestBranch

M GitProject

Switched to a new branch 'GitTestBranch'

**MBANIT1305889:GitProject valarmathi.kannan$ git branch**

Git1

\* GitTestBranch

master

**MBANIT1305889:GitProject valarmathi.kannan$ git clone -b GitTestBranch** https://github.com/valarmathi/GitProject GitTestBranch

Cloning into 'GitTestBranch'...

remote: Counting objects: 50, done.

remote: Compressing objects: 100% (37/37), done.

remote: Total 50 (delta 22), reused 25 (delta 6), pack-reused 0

Unpacking objects: 100% (50/50), done.

Checking connectivity... done.

MBANIT1305889:GitProject valarmathi.kannan$ ls

**Git1**  **GitTestBranch**  readme.txt valar234 ~$derStanding Of Git.docx

GitProject TestForBranchPull sindhu valar2345

GitTest.html UnderStanding Of Git.docx testComit valartest

**Note: Git1, GitTestBranch are branches.**

**MBANIT1305889:GitProject valarmathi.kannan$ cd GitTestBranch/**

**MBANIT1305889:GitTestBranch valarmathi.kannan$ ls**

GitTest.html UnderStanding Of Git.docx readme.txt testComit ~$derStanding Of Git.docx

**MBANIT1305889:GitTestBranch valarmathi.kannan$ touch valar8789**

**MBANIT1305889:GitTestBranch valarmathi.kannan$ git add .**

**MBANIT1305889:GitTestBranch valarmathi.kannan$ git commit -m "test** test test"

[GitTestBranch d6e5f15] test test test

1 file changed, 0 insertions(+), 0 deletions(-)

create mode 100644 valar8789

**MBANIT1305889:GitTestBranch valarmathi.kannan$ git push**

Counting objects: 3, done.

Delta compression using up to 8 threads.

Compressing objects: 100% (2/2), done.

Writing objects: 100% (3/3), 269 bytes | 0 bytes/s, done.

Total 3 (delta 1), reused 0 (delta 0)

To https://github.com/valarmathi/GitProject

2103407..d6e5f15 **GitTestBranch -> GitTestBranch**

**DELETE GIT MASTER & BRANCH REPOSITORIES**

1. To delete a repository from local working directory

**rm** -r .git

removing the .git directory makes the git repository as a directory.

1. To delete a branch from Github

**MBANIT1305889:GitProject valarmathi.kannan$ git push origin --delete Git1**

To https://github.com/valarmathi/GitProject.git

- [deleted] Git1

**MBANIT1305889:GitProject valarmathi.kannan$ git push origin --delete GitTestBranch**

To https://github.com/valarmathi/GitProject.git

- [deleted] GitTestBranch

**END-TO-END**

**MBANIT1305889:DemoProjects valarmathi.kannan$ curl -u 'valarmathi' https://api.github.com/user/repos -d '{"name":"CreateGitHubRepository","description":"This project is to create a git repo from local"}'**

Enter host password for user 'valarmathi':

{

"id": 58528917,

"name": "CreateGitHubRepository",

"full\_name": "valarmathi/CreateGitHubRepository",

"owner": {

"login": "valarmathi",

"id": 1949607,

"avatar\_url": "https://avatars.githubusercontent.com/u/1949607?v=3",

"gravatar\_id": "",

"url": "https://api.github.com/users/valarmathi",

"html\_url": "https://github.com/valarmathi",

"followers\_url": "https://api.github.com/users/valarmathi/followers",

"following\_url": "https://api.github.com/users/valarmathi/following{/other\_user}",

"gists\_url": "https://api.github.com/users/valarmathi/gists{/gist\_id}",

"starred\_url": "https://api.github.com/users/valarmathi/starred{/owner}{/repo}",

"subscriptions\_url": "https://api.github.com/users/valarmathi/subscriptions",

"organizations\_url": "https://api.github.com/users/valarmathi/orgs",

"repos\_url": "https://api.github.com/users/valarmathi/repos",

"events\_url": "https://api.github.com/users/valarmathi/events{/privacy}",

"received\_events\_url": "https://api.github.com/users/valarmathi/received\_events",

"type": "User",

"site\_admin": false

},

"private": false,

"html\_url": "https://github.com/valarmathi/CreateGitHubRepository",

"description": "This project is to create a git repo from local",

"fork": false,

"url": "https://api.github.com/repos/valarmathi/CreateGitHubRepository",

"forks\_url": "https://api.github.com/repos/valarmathi/CreateGitHubRepository/forks",

"keys\_url": "https://api.github.com/repos/valarmathi/CreateGitHubRepository/keys{/key\_id}",

"collaborators\_url": "https://api.github.com/repos/valarmathi/CreateGitHubRepository/collaborators{/collaborator}",

"teams\_url": "https://api.github.com/repos/valarmathi/CreateGitHubRepository/teams",

"hooks\_url": "https://api.github.com/repos/valarmathi/CreateGitHubRepository/hooks",

"issue\_events\_url": "https://api.github.com/repos/valarmathi/CreateGitHubRepository/issues/events{/number}",

"events\_url": "https://api.github.com/repos/valarmathi/CreateGitHubRepository/events",

"assignees\_url": "https://api.github.com/repos/valarmathi/CreateGitHubRepository/assignees{/user}",

"branches\_url": "https://api.github.com/repos/valarmathi/CreateGitHubRepository/branches{/branch}",

"tags\_url": "https://api.github.com/repos/valarmathi/CreateGitHubRepository/tags",

"blobs\_url": "https://api.github.com/repos/valarmathi/CreateGitHubRepository/git/blobs{/sha}",

"git\_tags\_url": "https://api.github.com/repos/valarmathi/CreateGitHubRepository/git/tags{/sha}",

"git\_refs\_url": "https://api.github.com/repos/valarmathi/CreateGitHubRepository/git/refs{/sha}",

"trees\_url": "https://api.github.com/repos/valarmathi/CreateGitHubRepository/git/trees{/sha}",

"statuses\_url": "https://api.github.com/repos/valarmathi/CreateGitHubRepository/statuses/{sha}",

"languages\_url": "https://api.github.com/repos/valarmathi/CreateGitHubRepository/languages",

"stargazers\_url": "https://api.github.com/repos/valarmathi/CreateGitHubRepository/stargazers",

"contributors\_url": "https://api.github.com/repos/valarmathi/CreateGitHubRepository/contributors",

"subscribers\_url": "https://api.github.com/repos/valarmathi/CreateGitHubRepository/subscribers",

"subscription\_url": "https://api.github.com/repos/valarmathi/CreateGitHubRepository/subscription",

"commits\_url": "https://api.github.com/repos/valarmathi/CreateGitHubRepository/commits{/sha}",

"git\_commits\_url": "https://api.github.com/repos/valarmathi/CreateGitHubRepository/git/commits{/sha}",

"comments\_url": "https://api.github.com/repos/valarmathi/CreateGitHubRepository/comments{/number}",

"issue\_comment\_url": "https://api.github.com/repos/valarmathi/CreateGitHubRepository/issues/comments{/number}",

"contents\_url": "https://api.github.com/repos/valarmathi/CreateGitHubRepository/contents/{+path}",

"compare\_url": "https://api.github.com/repos/valarmathi/CreateGitHubRepository/compare/{base}...{head}",

"merges\_url": "https://api.github.com/repos/valarmathi/CreateGitHubRepository/merges",

"archive\_url": "https://api.github.com/repos/valarmathi/CreateGitHubRepository/{archive\_format}{/ref}",

"downloads\_url": "https://api.github.com/repos/valarmathi/CreateGitHubRepository/downloads",

"issues\_url": "https://api.github.com/repos/valarmathi/CreateGitHubRepository/issues{/number}",

"pulls\_url": "https://api.github.com/repos/valarmathi/CreateGitHubRepository/pulls{/number}",

"milestones\_url": "https://api.github.com/repos/valarmathi/CreateGitHubRepository/milestones{/number}",

"notifications\_url": "https://api.github.com/repos/valarmathi/CreateGitHubRepository/notifications{?since,all,participating}",

"labels\_url": "https://api.github.com/repos/valarmathi/CreateGitHubRepository/labels{/name}",

"releases\_url": "https://api.github.com/repos/valarmathi/CreateGitHubRepository/releases{/id}",

"deployments\_url": "https://api.github.com/repos/valarmathi/CreateGitHubRepository/deployments",

"created\_at": "2016-05-11T08:50:45Z",

"updated\_at": "2016-05-11T08:50:45Z",

"pushed\_at": "2016-05-11T08:50:46Z",

"git\_url": "git://github.com/valarmathi/CreateGitHubRepository.git",

"ssh\_url": "git@github.com:valarmathi/CreateGitHubRepository.git",

"clone\_url": "https://github.com/valarmathi/CreateGitHubRepository.git",

"svn\_url": "https://github.com/valarmathi/CreateGitHubRepository",

"homepage": null,

"size": 0,

"stargazers\_count": 0,

"watchers\_count": 0,

"language": null,

"has\_issues": true,

"has\_downloads": true,

"has\_wiki": true,

"has\_pages": false,

"forks\_count": 0,

"mirror\_url": null,

"open\_issues\_count": 0,

"forks": 0,

"open\_issues": 0,

"watchers": 0,

"default\_branch": "master",

"permissions": {

"admin": true,

"push": true,

"pull": true

},

"network\_count": 0,

"subscribers\_count": 1

}

**MBANIT1305889:DemoProjects valarmathi.kannan$ ls**

**GitProjectBasic**

**MBANIT1305889:DemoProjects valarmathi.kannan$ cd GitProjectBasic/**

**MBANIT1305889:GitProjectBasic valarmathi.kannan$ git init**

Initialized empty Git repository in /Users/valarmathi.kannan/DemoProjects/GitProjectBasic/.git/

**MBANIT1305889:GitProjectBasic valarmathi.kannan$ git add .**

**MBANIT1305889:GitProjectBasic valarmathi.kannan$ git commit -m "first** Git commit -- adding file understanding of git"

[master (root-commit) bb99720] first Git commit -- adding file understanding of git

2 files changed, 0 insertions(+), 0 deletions(-)

create mode 100644 UnderStanding Of Git.docx

create mode 100644 ~$derStanding Of Git.docx

**MBANIT1305889:GitProjectBasic valarmathi.kannan$ git remote –v**

**MBANIT1305889:GitProjectBasic valarmathi.kannan$ git remote add origin** [**https://github.com/valarmathi/CreateGitHubRepository**](https://github.com/valarmathi/CreateGitHubRepository)

**MBANIT1305889:GitProjectBasic valarmathi.kannan$ git remote -v**

origin https://github.com/valarmathi/CreateGitHubRepository (fetch)

origin https://github.com/valarmathi/CreateGitHubRepository (push)

**MBANIT1305889:GitProjectBasic valarmathi.kannan$ git push -u origin master**

Counting objects: 4, done.

Delta compression using up to 8 threads.

Compressing objects: 100% (4/4), done.

Writing objects: 100% (4/4), 97.89 KiB | 0 bytes/s, done.

Total 4 (delta 0), reused 0 (delta 0)

To https://github.com/valarmathi/CreateGitHubRepository

\* [new branch] master -> master

Branch master set up to track remote branch master from origin by rebasing.

**Create a branch from terminal in Github**

**MBANIT1305889:GitProjectBasic valarmathi.kannan$ git checkout -b test-branch2**

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Switched to a new branch 'test-branch2'

**MBANIT1305889:GitProjectBasic valarmathi.kannan$ git push -u origin test-branch2**

Total 0 (delta 0), reused 0 (delta 0)

To https://github.com/valarmathi/CreateGitHubRepository

\* [new branch] test-branch2 -> test-branch2

Branch test-branch2 set up to track remote branch test-branch2 from origin by rebasing.

**:GitProjectBasic valarmathi.kannan$ git branch**

master

\* test-branch2