

## Module 2: Version Control with Git

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### Assignment - 1 Solution

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## Problem Statement

Three Developers are working in Aperture Technology co. Their company wants a better Source Code Management System because the earlier tool had the tendency to save redundant code. Multiple Developers working simultaneously on the same block of code also caused problems. You are Mike, and your manager has given you the task of moving the company's code base to git and Github.

## Action Items

- Create a local git repository and move the entire code base to it
- Create a new branch for a new feature you want to add to the application
- Merge back the created branch with the master branch
- Create a remote repository
- Push the local repository to company's remote repository

Link to download the [code base](#)

## Solution

1. Move to your Source Code directory and initialize a git repo in that folder

```
root@edureka:/home/edureka/Documents/sourceCode# ls
css  fonts  img  index.html
```

Syntax: git init

```
root@edureka:/home/edureka/Documents/sourceCode# git init
Initialized empty Git repository in /home/edureka/Documents/sourceCode/.git/
```

2. Add all the files in the repository to the staging area

Syntax: `git add .`

```
root@edureka:/home/edureka/Documents/sourceCode# git add .
root@edureka:/home/edureka/Documents/sourceCode# git status
On branch master
```

Initial commit

Changes to be committed:  
(use "`git rm --cached <file>...`" to unstage)

```
new file:   css/site.css
new file:   fonts/segoeUIL.ttf
new file:   img/cloneWhite.svg
new file:   img/DeployWhite.svg
new file:   img/lightbulbWhite.svg
new file:   img/stackWhite.svg
new file:   img/successCloudNew.svg
new file:   img/tweetThis.svg
new file:   index.html
```

3. Now commit these files to the local repository

Syntax: `git commit`

```
root@edureka:/home/edureka/Documents/sourceCode# git commit
[master (root-commit) 93a5224] All files added to the local repo
9 files changed, 198 insertions(+)
create mode 100644 css/site.css
create mode 100644 fonts/segoeUIL.ttf
create mode 100644 img/cloneWhite.svg
create mode 100644 img/DeployWhite.svg
create mode 100644 img/lightbulbWhite.svg
create mode 100644 img/stackWhite.svg
create mode 100644 img/successCloudNew.svg
create mode 100644 img/tweetThis.svg
create mode 100644 index.html
```

```
root@edureka:/home/edureka/Documents/sourceCode# git log
commit 93a522451aa29c3a5695c3ba6d74ba471c4c2c84
Author: edureka <devops.content@edureka.co>
Date:   Wed May 30 13:25:15 2018 +0530

    All files added to the local repo
```

4. Create a new feature branch and switch to it

Syntax: `git branch branchName`  
`git checkout branchName`

```
root@edureka:/home/edureka/Documents/sourceCode# git branch new-feature1
```

```
root@edureka:/home/edureka/Documents/sourceCode# git branch
list
* master
  new-feature1
```

```
root@edureka:/home/edureka/Documents/sourceCode# git checkout new-feature1
```

5. Make the required changes to the source files and then do a git diff to check all the changes

Syntax: `git diff`

```
root@edureka:/home/edureka/Documents/sourceCode# git diff
diff --git a/index.html b/index.html
index 0d303bb..d207dad 100644
--- a/index.html
+++ b/index.html
@@ -2,7 +2,7 @@
<html>

<head>
-   <title>HTML Application</title>
+   <title>My HTML Application</title>
+   <link href="css/site.css" rel="stylesheet">
</head>
```

6. Now add the changed files to the staging area

Syntax: `git add fileName`  
OR `git add .`

```
root@edureka:/home/edureka/Documents/sourceCode# git add index.html
```

7. Commit the changes

Syntax: `git commit`

```
root@edureka:/home/edureka/Documents/sourceCode# git commit
[new-feature1 f8f67fd] Added new feature1
1 file changed, 1 insertion(+), 1 deletion(-)
```

8. Now switch back to master and merge the feature branch back into the master

Syntax: `git merge branchName`

```
root@edureka:/home/edureka/Documents/sourceCode# git checkout master
Switched to branch 'master'
root@edureka:/home/edureka/Documents/sourceCode# git merge new-feature1
Updating 93a5224..f8f67fd
Fast-forward
 index.html | 2 +-
1 file changed, 1 insertion(+), 1 deletion(-)
```

9. Now, create a remote repository on your Github account.
10. Add the remote repository to your local repo

Syntax: `git remote add origin repoURL`

```
root@edureka:/home/edureka/Documents/sourceCode# git remote add origin https://github.com/edureka-devops/gitCaseStudy.git
root@edureka:/home/edureka/Documents/sourceCode# git log
commit f8f67fd753ba22e232788f5f2bd0276f0a309a59
Author: edureka <devops.content@edureka.co>
Date: Wed May 30 14:26:59 2018 +0530

    Added new feature1

commit 93a522451aa29c3a5695c3ba6d74ba471c4c2c84
Author: edureka <devops.content@edureka.co>
Date: Wed May 30 13:25:15 2018 +0530

    All files added to the local repo
```

11. Push the local repository onto the remote repository

Syntax: `git push -u origin master`

```
root@edureka:/home/edureka/Documents/sourceCode# git push -u origin master
Username for 'https://github.com': edureka-devops
Password for 'https://edureka-devops@github.com':
Counting objects: 17, done.
Compressing objects: 100% (15/15), done.
Writing objects: 100% (17/17), 460.66 KiB | 0 bytes/s, done.
Total 17 (delta 2), reused 0 (delta 0)
remote: Resolving deltas: 100% (2/2), done.
To https://github.com/edureka-devops/gitCaseStudy.git
 * [new branch]      master -> master
Branch master set up to track remote branch master from origin.
```

edureka-devops / gitCaseStudy

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0

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3 commits

1 branch

0 releases

1 contributor

Branch: master

New pull request

Create new file

Upload files

Find file

Clone or download

edureka-devops

Added local repository to remote and added a Readme.md file

Latest commit 1bb6f5d 36 minutes ago

css	All files added to the local repo	2 hours ago
fonts	All files added to the local repo	2 hours ago
img	All files added to the local repo	2 hours ago
README.md	Added local repository to remote and added a Readme.md file	36 minutes ago
index.html	Added new feature1	an hour ago

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