Module 2: Git Assignment – 5

1. Create a Git Flow workflow architecture on Git
2. Create all the required branches
3. Starting from the feature branch, push the branch to the master, following the architecture
4. Push a urgent.txt on master using hotfix

Git wrokflow follows the following brach strategy

Master: This branch contains the mastercode which is of no errors and wont be touched throughout the code developing process except at the time of final code deploying.

Develop : This is the branch cut from the master branch for code developing purpose.

Feature : Develop branch is the source/base branch for this branch. Developers cut feature branch from develop branch for code developing and merge the changes again into develop branch after code development.

Release: release branch is the brach cut from the develop branch for adding vesions and tags and merged into the develop branch

Hotfix branch: hotfix branch is cut from the master branch for emergency bug fixings and urgent cases and after rectification merged into the master branch.

- Empty repo is initiated and a mastercode.txt is added into master branch , staged and committed

```
hp@Srinu MINGW64 /k/Venkat/New folder (2) (feature)
$ git init
Initialized empty Git repository in K:/Venkat/New folder (2)/.git/

hp@Srinu MINGW64 /k/Venkat/New folder (2) (master)
$ touch mastercode.txt

hp@Srinu MINGW64 /k/Venkat/New folder (2) (master)
$ git add .

hp@Srinu MINGW64 /k/Venkat/New folder (2) (master)
$ git commit -m "initial master code"
[master (root-commit) cb5cc54] initial master code
 1 file changed, 0 insertions(+), 0 deletions(-)
 create mode 100644 mastercode.txt
```

- Develop branch is cut from the master branch.
- From the develop branch feature branch is cut for code development by developers. then code is staged and committed to feature branch

```
hp@Srinu MINGW64 /k/Venkat/New folder (2) (master)
$ git checkout develop
error: pathspec 'develop' did not match any file(s) known to git

hp@Srinu MINGW64 /k/Venkat/New folder (2) (master)
$ git checkout -b develop
Switched to a new branch 'develop'

hp@Srinu MINGW64 /k/Venkat/New folder (2) (develop)
$ ls
mastercode.txt

hp@Srinu MINGW64 /k/Venkat/New folder (2) (develop)
$ git checkout -b feature
Switched to a new branch 'feature'

hp@Srinu MINGW64 /k/Venkat/New folder (2) (feature)
$ vi mastercode.txt

hp@Srinu MINGW64 /k/Venkat/New folder (2) (feature)
$ git add .
warning: in the working copy of 'mastercode.txt', LF will be replaced by CRLF the next time Git touches it

hp@Srinu MINGW64 /k/Venkat/New folder (2) (feature)
$ git commit -m "committing in  feature branch"
[feature 464e711] committing in  feature branch
 1 file changed, 3 insertions(+)
```

- Now the develop branch is updated with the changes in feature branch

```
hp@Srinu MINGW64 /k/Venkat/New folder (2) (feature)
$ git checkout develop
Switched to branch 'develop'

hp@Srinu MINGW64 /k/Venkat/New folder (2) (develop)
$ git merge feature
Updating cb5cc54..464e711
Fast-forward
 mastercode.txt | 3 +++
 1 file changed, 3 insertions(+)
```

- Release branch is cut from the develop branch to make code ready for to release

```
hp@Srinu MINGW64 /k/Venkat/New folder (2) (develop)
$ git checkout -b release
Switched to a new branch 'release'

hp@Srinu MINGW64 /k/Venkat/New folder (2) (release)
$ ls
mastercode.txt

hp@Srinu MINGW64 /k/Venkat/New folder (2) (release)
$ vi mastercode.txt

hp@Srinu MINGW64 /k/Venkat/New folder (2) (release)
$ cat mastercode
cat: mastercode: No such file or directory

hp@Srinu MINGW64 /k/Venkat/New folder (2) (release)
$ cat mastercode.txt
editing mastercode,txt in feature branch
adding the newly developed code for updates and new features
dding versions for code
adding release tags
```

- The release code is stage and committed to release branch and developbranch is updated with the release branch

```
hp@Srinu MINGW64 /k/Venkat/New folder (2) (release)
$ git add .

hp@Srinu MINGW64 /k/Venkat/New folder (2) (release)
$ git commit -m "committing in release version of code"
[release 4c2d27a] committing in release version of code
 1 file changed, 2 insertions(+)

hp@Srinu MINGW64 /k/Venkat/New folder (2) (release)
$ git  checkout develop
Switched to branch 'develop'

hp@Srinu MINGW64 /k/Venkat/New folder (2) (develop)
$ git merge release
Updating 464e711..4c2d27a
Fast-forward
 mastercode.txt | 2 ++
 1 file changed, 2 insertions(+)
```

- Finally final code is updated to master branch

```
hp@Srinu MINGW64 /k/Venkat/New folder (2) (develop)
$ git checkout master
Switched to branch 'master'

hp@Srinu MINGW64 /k/Venkat/New folder (2) (master)
$ git merge develop
Updating cb5cc54..4c2d27a
Fast-forward
 mastercode.txt | 5 +++++
 1 file changed, 5 insertions(+)
```

- Hotfix branch is cut from the master branch and urgent.txt is added, staged and committed to hotficx branch.

```
hp@Srinu MINGW64 /k/Venkat/New folder (2) (master)
$ git checkout -b hotfix
Switched to a new branch 'hotfix'

hp@Srinu MINGW64 /k/Venkat/New folder (2) (hotfix)
$ ls
mastercode.txt

hp@Srinu MINGW64 /k/Venkat/New folder (2) (hotfix)
$ vi mastercode.txt

hp@Srinu MINGW64 /k/Venkat/New folder (2) (hotfix)
$ cat mastercode.txt
editing mastercode,txt in feature branch
adding the newly developed code for updates and new features
dding versions for code
adding release tags
modified code to fix all bugs encountered after deployment.

hp@Srinu MINGW64 /k/Venkat/New folder (2) (hotfix)
$ git add .

hp@Srinu MINGW64 /k/Venkat/New folder (2) (hotfix)
$ git commit -m "final code after bug fixing"
[hotfix ee7ae56] final code after bug fixing
 1 file changed, 1 insertion(+), 1 deletion(-)

hp@Srinu MINGW64 /k/Venkat/New folder (2) (hotfix)
$ vi edit.txt

hp@Srinu MINGW64 /k/Venkat/New folder (2) (hotfix)
$ vi urgent.txt

hp@Srinu MINGW64 /k/Venkat/New folder (2) (hotfix)
$ cat urgent.txt
urgent modifications for bug fixing

hp@Srinu MINGW64 /k/Venkat/New folder (2) (hotfix)
$ git add .
warning: in the working copy of 'urgent.txt', LF will be replaced by CRLF the next time Git touches it

hp@Srinu MINGW64 /k/Venkat/New folder (2) (hotfix)
$ git commit -m "final code after urgent modifications"
[hotfix 1d2ec10] final code after urgent modifications
 1 file changed, 1 insertion(+)
 create mode 100644 urgent.txt
```

Finally the code is updated to master branch

```
hp@Srinu MINGW64 /k/Venkat/New folder (2) (master)
$ ls
mastercode.txt

hp@Srinu MINGW64 /k/Venkat/New folder (2) (master)
$ git merge hotfix
Updating 4c2d27a..1d2ec10
Fast-forward
 mastercode.txt | 2 +-
 urgent.txt     | 1 +
 2 files changed, 2 insertions(+), 1 deletion(-)
 create mode 100644 urgent.txt

hp@Srinu MINGW64 /k/Venkat/New folder (2) (master)
$ ls
mastercode.txt  urgent.txt

hp@Srinu MINGW64 /k/Venkat/New folder (2) (master)
$
```