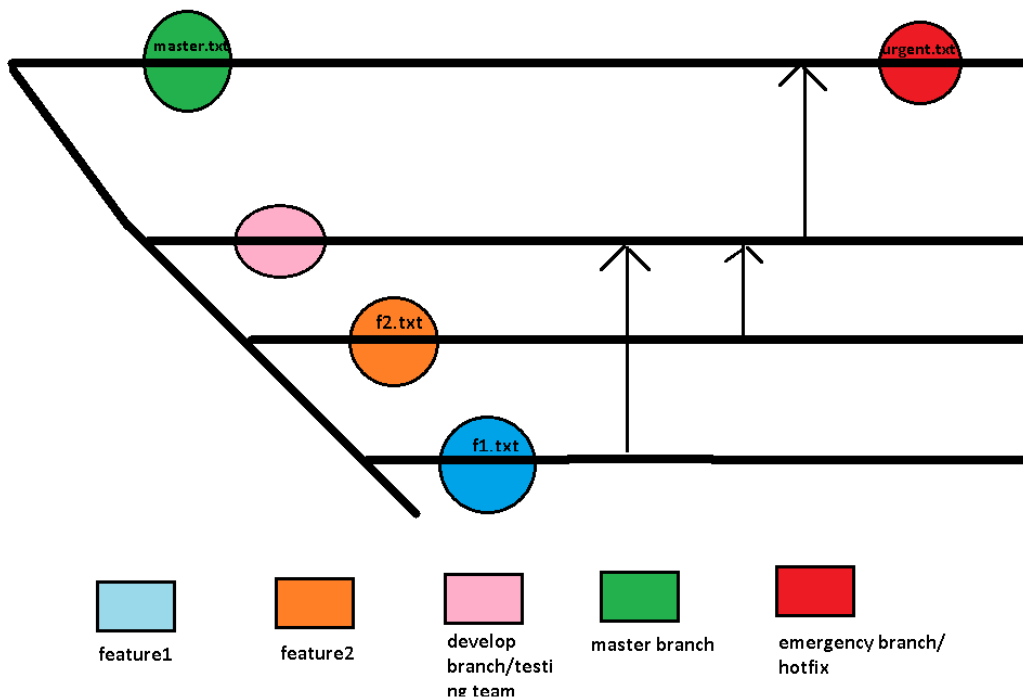


Module-2: GIT Assignment - 5

You have been asked to:

- Create a gitflow workflow architecture on git
- Create all the required branches
- Starting from the feature branch, push the branch to the master, following the architecture
- Push a urgent.txt on master using hotfix



Steps taken:

1. Create master.txt and stage and commit it.
touch master.txt
Git add .
Git commit -m "message"
2. Now create feature1 feature2 develop branch.
Git branch feature1
Git branch feature2
Git branch develop
3. Checkout to feature1 branch create f1.txt file stage and commit it.
Git checkout feature1
Touch f1.txt
Git add .

Git commit -m "message"

4. Checkout to feature2 branch create f2.txt file stage and commit it.

Git checkout feature2

Touch f2.txt

Git add .

Git commit -m "message"

5. Now checkout to **develop** branch and **merge feature1 and feature2** branch.

Git checkout develop

Git merge feature1

Git merge feature2

6. Now checkout **master** branch and **merge develop branch to it.**

Git checkout master

Git merge develop

7. Then create Hotfix branch.

Git branch hotfix

8. Create urgent.txt file stage and commit it.

Touch urgent.txt

Git add .

Git commit -m "message"

9. Checkout to master branch and merge hotfix branch to it.

Git checkout master

Git merge hotfix

Create master.txt and stage and commit it.

```
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No containers need to be restarted.

No user sessions are running outdated binaries.

No VM guests are running outdated hypervisor (qemu) binaries on this host.
root@ip-172-31-7-171:/home/ubuntu/Assignment# mkdir Assignment
root@ip-172-31-7-171:/home/ubuntu/Assignment# cd Assignment
root@ip-172-31-7-171:/home/ubuntu/Assignment# git init
hint: Using 'master' as the name for the initial branch. This default branch name
hint: is subject to change. To configure the initial branch name to use in all
hint: of your new repositories, which will suppress this warning, call:
hint:
hint:   git config --global init.defaultBranch <name>
hint:
hint: Names commonly chosen instead of 'master' are 'main', 'trunk' and
hint: 'development'. The just-created branch can be renamed via this command:
hint:
hint:   git branch -m <name>
root@ip-172-31-7-171:/home/ubuntu/Assignment# touch master.txt
root@ip-172-31-7-171:/home/ubuntu/Assignment# git add master.txt
root@ip-172-31-7-171:/home/ubuntu/Assignment# git commit -m "master"
[master (root-commit) 83ced2b] master
1 file changed, 0 insertions(+), 0 deletions(-)
create mode 100644 master.txt
root@ip-172-31-7-171:/home/ubuntu/Assignment# git branch
* master
root@ip-172-31-7-171:/home/ubuntu/Assignment# git branch feature1
root@ip-172-31-7-171:/home/ubuntu/Assignment# git branch feature2
root@ip-172-31-7-171:/home/ubuntu/Assignment# git branch develop
root@ip-172-31-7-171:/home/ubuntu/Assignment# git branch
* master
  develop
  feature1
  feature2

+ 026f4a27e2982136d (for-git)
PublicP: 55.168.52.19 PrivateP: 172.31.7.171

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```

Now create feature1 feature2 develop branch

```
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hint:   git config --global init.defaultBranch <name>
hint:
hint: Names commonly chosen instead of 'master' are 'main', 'trunk' and
hint: 'development'. The just-created branch can be renamed via this command:
hint:
hint:   git branch -m <name>
root@ip-172-31-7-171:/home/ubuntu/Assignment# git branch
* master
root@ip-172-31-7-171:/home/ubuntu/Assignment# git branch feature1
root@ip-172-31-7-171:/home/ubuntu/Assignment# git branch feature2
root@ip-172-31-7-171:/home/ubuntu/Assignment# git branch develop
root@ip-172-31-7-171:/home/ubuntu/Assignment# git branch
* master
  develop
  feature1
  feature2
root@ip-172-31-7-171:/home/ubuntu/Assignment# git checkout feature1
Switched to branch 'feature1'
root@ip-172-31-7-171:/home/ubuntu/Assignment# touch f1.txt
root@ip-172-31-7-171:/home/ubuntu/Assignment# git branch
* feature1
  develop
  feature2
  master
root@ip-172-31-7-171:/home/ubuntu/Assignment# git add f1.txt

+ 026f4a27e2982136d (for-git)
PublicP: 55.168.52.19 PrivateP: 172.31.7.171

Feedback Language
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```

Checkout to feature1 branch create f1.txt file stage and commit it.

```
git config --global --edit

After doing this, you may fix the identity used for this commit with:

git commit --amend --reset-author

1 file changed, 0 insertions(+), 0 deletions(-)
create mode 100644 master.txt
root@ip-172-31-7-171:/home/ubuntu/Assignment# git branch
* master
root@ip-172-31-7-171:/home/ubuntu/Assignment# git branch feature1
root@ip-172-31-7-171:/home/ubuntu/Assignment# git branch feature2
root@ip-172-31-7-171:/home/ubuntu/Assignment# git branch develop
root@ip-172-31-7-171:/home/ubuntu/Assignment# git branch
  develop
  feature1
  feature2
  master
root@ip-172-31-7-171:/home/ubuntu/Assignment# git checkout feature1
Switched to branch 'feature1'
root@ip-172-31-7-171:/home/ubuntu/Assignment# touch f1.txt
root@ip-172-31-7-171:/home/ubuntu/Assignment# git add f1.txt
[feature1 1d5da08] feature1
Committer: root <root@ip-172-31-7-171.ec2.internal>
Your name and email address were configured automatically based
on your username and hostname. Please check that they are accurate.
You can suppress this message by setting them explicitly. Run the
following command and follow the instructions in your editor to edit
your configuration file:

git config --global --edit

After doing this, you may fix the identity used for this commit with:

git commit --amend --reset-author

1 file changed, 0 insertions(+), 0 deletions(-)
create mode 100644 f1.txt
root@ip-172-31-7-171:/home/ubuntu/Assignment#

i-026f4a27e2982136d (for-git)
PublicPv: 35.168.32.19   PrivatePv: 172.31.7.171
```

Checkout to feature2 branch create f2.txt file stage and commit it.

```
root@ip-172-31-7-171:/home/ubuntu/Assignment# touch f1.txt
root@ip-172-31-7-171:/home/ubuntu/Assignment# git branch
  develop
  feature1
  feature2
  master
root@ip-172-31-7-171:/home/ubuntu/Assignment# git add f1.txt
root@ip-172-31-7-171:/home/ubuntu/Assignment# git commit -m "feature1"
[feature1 1d5da08] feature1
Committer: root <root@ip-172-31-7-171.ec2.internal>
Your name and email address were configured automatically based
on your username and hostname. Please check that they are accurate.
You can suppress this message by setting them explicitly. Run the
following command and follow the instructions in your editor to edit
your configuration file:

git config --global --edit

After doing this, you may fix the identity used for this commit with:

git commit --amend --reset-author

1 file changed, 0 insertions(+), 0 deletions(-)
create mode 100644 f1.txt
root@ip-172-31-7-171:/home/ubuntu/Assignment# git checkout feature2
Switched to branch 'feature2'
root@ip-172-31-7-171:/home/ubuntu/Assignment# touch f2.txt
root@ip-172-31-7-171:/home/ubuntu/Assignment# git add .
root@ip-172-31-7-171:/home/ubuntu/Assignment# git commit -m "feature2"
[feature2 09308e0] feature2
Committer: root <root@ip-172-31-7-171.ec2.internal>
Your name and email address were configured automatically based
on your username and hostname. Please check that they are accurate.
You can suppress this message by setting them explicitly. Run the
following command and follow the instructions in your editor to edit
your configuration file:

git config --global --edit

After doing this, you may fix the identity used for this commit with:

git commit --amend --reset-author

1 file changed, 0 insertions(+), 0 deletions(-)
create mode 100644 f2.txt
root@ip-172-31-7-171:/home/ubuntu/Assignment#

i-026f4a27e2982136d (for-git)
PublicPv: 35.168.32.19   PrivatePv: 172.31.7.171
```

Now checkout to **develop** branch and **merge feature1 and feature2** branch.
And checkout **master** branch and **merge develop branch to it.**

```
root@ip-172-31-7-171:/home/ubuntu/Assignment# git status
On branch master
nothing to commit, working tree clean
root@ip-172-31-7-171:/home/ubuntu/Assignment# git branch
* master
  develop
  feature1
  feature2
root@ip-172-31-7-171:/home/ubuntu/Assignment# git checkout develop
Switched to branch 'develop'
root@ip-172-31-7-171:/home/ubuntu/Assignment# git merge feature1
Updating 83ced2b..1d5d4c8
Fast-forward
 f1.txt | 0
 1 file changed, 0 insertions(+), 0 deletions(-)
 create mode 100644 f1.txt
root@ip-172-31-7-171:/home/ubuntu/Assignment# git merge feature2
Merge made by the 'ort' strategy.
 f2.txt | 0
 1 file changed, 0 insertions(+), 0 deletions(-)
 create mode 100644 f2.txt
root@ip-172-31-7-171:/home/ubuntu/Assignment# ls
f1.txt  f2.txt  master.txt
root@ip-172-31-7-171:/home/ubuntu/Assignment# git branch
* develop
  feature1
  feature2
  master
root@ip-172-31-7-171:/home/ubuntu/Assignment# git master
git: 'master' is not a git command. See 'git --help'.

The most similar command is
  restore
root@ip-172-31-7-171:/home/ubuntu/Assignment# git merge develop
Already up to date.
root@ip-172-31-7-171:/home/ubuntu/Assignment# git branch master
fatal: A branch named 'master' already exists.
root@ip-172-31-7-171:/home/ubuntu/Assignment# git checkout master
Switched to branch 'master'
root@ip-172-31-7-171:/home/ubuntu/Assignment# git merge develop
Updating 1d5d4c8..367211d
Fast-forward
 f2.txt | 0
 1 file changed, 0 insertions(+), 0 deletions(-)
 create mode 100644 f2.txt
root@ip-172-31-7-171:/home/ubuntu/Assignment#
```

Then create Hotfix branch.
Create urgent.txt file stage and commit it.
Checkout to master branch and merge hotfix branch to it.

```
f1.txt  f2.txt  master.txt
root@ip-172-31-7-171:/home/ubuntu/Assignment# git branch
* develop
  feature1
  feature2
  master
root@ip-172-31-7-171:/home/ubuntu/Assignment# git master
git: 'master' is not a git command. See 'git --help'.

The most similar command is
  restore
root@ip-172-31-7-171:/home/ubuntu/Assignment# git merge develop
Already up to date.
root@ip-172-31-7-171:/home/ubuntu/Assignment# git branch master
fatal: A branch named 'master' already exists.
root@ip-172-31-7-171:/home/ubuntu/Assignment# git checkout master
Switched to branch 'master'
root@ip-172-31-7-171:/home/ubuntu/Assignment# git merge develop
Updating 1d5d4c8..367211d
Fast-forward
 f2.txt | 0
 1 file changed, 0 insertions(+), 0 deletions(-)
 create mode 100644 f2.txt
root@ip-172-31-7-171:/home/ubuntu/Assignment# git branch hotfix
Switched to branch 'hotfix'
root@ip-172-31-7-171:/home/ubuntu/Assignment# touch urgent.txt
root@ip-172-31-7-171:/home/ubuntu/Assignment# git add urgent.txt
root@ip-172-31-7-171:/home/ubuntu/Assignment# git commit -m "hotfix"
[hotfix 6bd7f68] hotfix
 1 file changed, 0 insertions(+), 0 deletions(-)
 create mode 100644 urgent.txt
root@ip-172-31-7-171:/home/ubuntu/Assignment#
```

Conclusion: Different features of a project are worked on different branches. When completed they are forwarded to develop branch and develop branch is merged to master branch. Master branch does not come in contact with feature branch. Hotfix branch helps to rectify and commit emergency changes directly to master branch.

It helps teams to establish clear guidelines and processes for developing, reviewing, and merging code changes, which leads to a better organized and more reliable codebase.