

DevOps Lab 3

Exp 3

Branching Development Model-Build a branching model to help your team understand the git workflow for faster work integration.

- **main** → production-ready code
- **develop** → integration branch
- **feature/** → for individual features
- **release/** → for preparing a release
- **hotfix/** → for urgent fixes

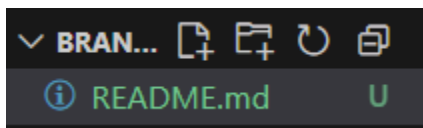
```
hebal@LAPTOP-TB03JMHG MINGW64 ~/Documents/Repos
• $ mkdir branching-model-demo

hebal@LAPTOP-TB03JMHG MINGW64 ~/Documents/Repos
• $ cd branching-model-demo

hebal@LAPTOP-TB03JMHG MINGW64 ~/Documents/Repos/branching-model-demo
• $ git init
Initialized empty Git repository in C:/Users/hebal/Documents/Repos/branching-model-demo/.git/
```

Initialize empty repository

Update [README.md](#)



```
hebal@LAPTOP-TB03JMHG MINGW64 ~/Documents/Repos/branching-model-demo (master)
• $ git add README.md

hebal@LAPTOP-TB03JMHG MINGW64 ~/Documents/Repos/branching-model-demo (master)
• $ git commit -m "Initial commit on main branch"
[master (root-commit) 8295df8] Initial commit on main branch
1 file changed, 1 insertion(+)
create mode 100644 README.md
```

Create new branch develop

```
hebal@LAPTOP-TB03JMHG MINGW64 ~/Documents/Repos/branching-model-demo (master)
● $ git checkout -b develop
Switched to a new branch 'develop'

hebal@LAPTOP-TB03JMHG MINGW64 ~/Documents/Repos/branching-model-demo (develop)
● $ git add dev.txt

hebal@LAPTOP-TB03JMHG MINGW64 ~/Documents/Repos/branching-model-demo (develop)
● $ git commit -m "Setup develop branch"
[develop 08d2b59] Setup develop branch
1 file changed, 1 insertion(+)
create mode 100644 dev.txt
```

Create feature branch

```
hebal@LAPTOP-TB03JMHG MINGW64 ~/Documents/Repos/branching-model-demo (develop)
● $ git checkout -b feature-login
Switched to a new branch 'feature-login'

hebal@LAPTOP-TB03JMHG MINGW64 ~/Documents/Repos/branching-model-demo (feature-login)
● $ git add feature.txt

hebal@LAPTOP-TB03JMHG MINGW64 ~/Documents/Repos/branching-model-demo (feature-login)
● $ git commit -m "Added login feature"
[feature-login cbf27f7] Added login feature
1 file changed, 1 insertion(+)
create mode 100644 feature.txt
```

Merge feature into develop

```
hebal@LAPTOP-TB03JMHG MINGW64 ~/Documents/Repos/branching-model-demo (feature-login)
● $ git checkout develop
Switched to branch 'develop'

hebal@LAPTOP-TB03JMHG MINGW64 ~/Documents/Repos/branching-model-demo (develop)
● $ git merge feature-login -m "Merged login feature"
Updating 08d2b59..cbf27f7
Fast-forward (no commit created; -m option ignored)
feature.txt | 1 +
1 file changed, 1 insertion(+)
create mode 100644 feature.txt
```

Create release branch

```
hebal@LAPTOP-TB03JMHG MINGW64 ~/Documents/Repos/branching-model-demo (develop)
● $ git checkout -b release-v1.0
Switched to a new branch 'release-v1.0'

hebal@LAPTOP-TB03JMHG MINGW64 ~/Documents/Repos/branching-model-demo (release-v1.0)
● $ git add release.txt

hebal@LAPTOP-TB03JMHG MINGW64 ~/Documents/Repos/branching-model-demo (release-v1.0)
● $ git commit -m "Prepared release v1.0"
[release-v1.0 ea8978a] Prepared release v1.0
1 file changed, 1 insertion(+)
create mode 100644 release.txt
```

Merge with main

```
hebal@LAPTOP-TB03JMHG MINGW64 ~/Documents/Repos/branching-model-demo (master)
● $ git merge release-v1.0 -m "Release v1.0"
Updating 8295df8..ea8978a
Fast-forward (no commit created; -m option ignored)
 dev.txt      | 1 +
 feature.txt  | 1 +
 release.txt  | 1 +
3 files changed, 3 insertions(+)
create mode 100644 dev.txt
create mode 100644 feature.txt
create mode 100644 release.txt
```

Tag version

```
hebal@LAPTOP-TB03JMHG MINGW64 ~/Documents/Repos/branching-model-demo (master)
● $ git tag v1.0
```