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| **Understanding Git Workflow, Branching and Merging** |

**Git Workflow**

A **Git workflow** is a set of guidelines or practices developers follow while using Git in a project. It defines how changes move from development to production.

**Git Branching**

A **branch** in Git is a lightweight pointer to a snapshot of your changes.

**Commands:**

* **git branch – List all branches**
* **git branch <name> – Create a new branch**
* **git checkout <name> – Switch to another branch**

**Example:**

1. **To create new branch:**

* **git branch dev-branch**
* **git checkout dev-branch**
* **git checkout master**

1. **To merge with dev-branch**

* **git merge dev-branch**
* **git checkout dev-branch**
* **git add test.txt**
* **git commit -m "file test.txt created"**
* **git checkout dev-branch**
* **git push -u origin dev-branch**

**C:\Users\ADMIN\Desktop\FEDF\Week2>git init**

**Reinitialized existing Git repository in C:/Users/ADMIN/Desktop/FEDF/Week2/.git/**

**C:\Users\ADMIN\Desktop\FEDF\Week2>git checkout master**

**Already on 'master'**

**C:\Users\ADMIN\Desktop\FEDF\Week2>git add second.html**

**C:\Users\ADMIN\Desktop\FEDF\Week2>git remote add origin https://github.com/RamyaKrishna528/FEDF.git**

**error: remote origin already exists.**

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**C:\Users\ADMIN\Desktop\FEDF\Week2>git commit -m "this is second html program"**

**On branch master**

**nothing to commit, working tree clean**

**C:\Users\ADMIN\Desktop\FEDF\Week2>git branch dev2**

**fatal: a branch named 'dev2' already exists**

**C:\Users\ADMIN\Desktop\FEDF\Week2>git branch dev3**

**C:\Users\ADMIN\Desktop\FEDF\Week2>git checkout dev3**

**Switched to branch 'dev3'**

**C:\Users\ADMIN\Desktop\FEDF\Week2>git add second.html**

**C:\Users\ADMIN\Desktop\FEDF\Week2>git commit -m "this is dev3file"**

**[dev3 8b3dc89] this is dev3file**

**1 file changed, 1 insertion(+)**

**C:\Users\ADMIN\Desktop\FEDF\Week2>git checkout master**

**Switched to branch 'master'**

**C:\Users\ADMIN\Desktop\FEDF\Week2>git merge dev3**

**Updating 5590620..8b3dc89**

**Fast-forward**

**second.html | 1 +**

**1 file changed, 1 insertion(+)**

**C:\Users\ADMIN\Desktop\FEDF\Week2>git checkout dev3**

**Switched to branch 'dev3'**

**C:\Users\ADMIN\Desktop\FEDF\Week2>git branch**

**dev1**

**dev2**

**\* dev3**

**master**

**C:\Users\ADMIN\Desktop\FEDF\Week2>git checkout master**

**Switched to branch 'master'**

**C:\Users\ADMIN\Desktop\FEDF\Week2>git branch**

**dev1**

**dev2**

**dev3**

**\* master**

**C:\Users\ADMIN\Desktop\FEDF\Week2>git pull origin master --rebase**

**From https://github.com/RamyaKrishna528/FEDF**

**\* branch master -> FETCH\_HEAD**

**Current branch master is up to date.**

**C:\Users\ADMIN\Desktop\FEDF\Week2>git push -u origin master**

**Enumerating objects: 10, done.**

**Counting objects: 100% (10/10), done.**

**Delta compression using up to 8 threads**

**Compressing objects: 100% (9/9), done.**

**Writing objects: 100% (9/9), 1.11 KiB | 161.00 KiB/s, done.**

**Total 9 (delta 2), reused 0 (delta 0), pack-reused 0 (from 0)**

**remote: Resolving deltas: 100% (2/2), done.**

**To https://github.com/RamyaKrishna528/FEDF.git**

**6863d58..8b3dc89 master -> master**

**branch 'master' set up to track 'origin/master'.**