

GIT Practice

Starting from an Un-versioned Repo

Init local repo

```
Abdul.Rahman@DESKTOP-9RSN6VV MINGW64 /d/Dev/projects/Bytewise/DL-Track/Task-1-Git-Practice/DemoProject (master)
$ git init
Initialized empty Git repository in D:/Dev/projects/Bytewise/DL-Track/Task-1-Git-Practice/DemoProject/.git/

Abdul.Rahman@DESKTOP-9RSN6VV MINGW64 /d/Dev/projects/Bytewise/DL-Track/Task-1-Git-Practice/DemoProject (master)
$ ls -la
total 5
drwxr-xr-x 1 Abdul.Rahman 197121 0 Mar 14 22:24 ./
drwxr-xr-x 1 Abdul.Rahman 197121 0 Mar 14 22:15 ../
drwxr-xr-x 1 Abdul.Rahman 197121 0 Mar 14 22:24 .git/
-rw-r--r-- 1 Abdul.Rahman 197121 44 Mar 14 22:16 Readme.MD
```

Configure .gitignore

```
Abdul.Rahman@DESKTOP-9RSN6VV MINGW64 /d/Dev/projects/Bytewise/DL-Track/Task-1-Git-Practice/DemoProject (master)
$ echo "*.txt" >> .gitignore

Abdul.Rahman@DESKTOP-9RSN6VV MINGW64 /d/Dev/projects/Bytewise/DL-Track/Task-1-Git-Practice/DemoProject (master)
$ echo "This txt file will be ignored due to git ignore" >> test.txt

Abdul.Rahman@DESKTOP-9RSN6VV MINGW64 /d/Dev/projects/Bytewise/DL-Track/Task-1-Git-Practice/DemoProject (master)
$ cat .gitignore
*.txt

Abdul.Rahman@DESKTOP-9RSN6VV MINGW64 /d/Dev/projects/Bytewise/DL-Track/Task-1-Git-Practice/DemoProject (master)
$ cat test.txt
This txt file will be ignored due to git ignore

Abdul.Rahman@DESKTOP-9RSN6VV MINGW64 /d/Dev/projects/Bytewise/DL-Track/Task-1-Git-Practice/DemoProject (master)
$ |
```

Commit

```
Abdul.Rahman@DESKTOP-9RSN6VV MINGW64 /d/Dev/projects/Bytewise/DL-Track/Task-1-Git-Practice/DemoProject (master)
$ git add -A

Abdul.Rahman@DESKTOP-9RSN6VV MINGW64 /d/Dev/projects/Bytewise/DL-Track/Task-1-Git-Practice/DemoProject (master)
$ git commit -m "First Commit!"
[master (root-commit) 461043e] First Commit!
2 files changed, 2 insertions(+)
create mode 100644 .gitignore
create mode 100644 Readme.MD

Abdul.Rahman@DESKTOP-9RSN6VV MINGW64 /d/Dev/projects/Bytewise/DL-Track/Task-1-Git-Practice/DemoProject (master)
$
```

Starting with an Existing Project on a Server

Cloning the Repo

```
Abdul.Rahman@DESKTOP-9RSN6VV MINGW64 /d/Dev/projects/Bytewise/DL-Track/Task-1-Git-Practice
$ git clone https://github.com/afk-Legacy/Hex2ARM-Bot.git
Cloning into 'Hex2ARM-Bot'...
remote: Enumerating objects: 36, done.
remote: Counting objects: 100% (36/36), done.
remote: Compressing objects: 100% (29/29), done.
remote: Total 36 (delta 6), reused 25 (delta 4), pack-reused 0
Receiving objects: 100% (36/36), 580.54 KiB | 579.00 KiB/s, done.
Resolving deltas: 100% (6/6), done.

Abdul.Rahman@DESKTOP-9RSN6VV MINGW64 /d/Dev/projects/Bytewise/DL-Track/Task-1-Git-Practice
$ |
```

Working on Your Project

Getting an Overview of Your Changes

```
Abdul.Rahman@DESKTOP-9RSN6VV MINGW64 /d/Dev/projects/Bytewise/DL-Track/Task-1-Git-Practice/Hex2ARM-Bot (main)
$ git status
On branch main
Your branch is up to date with 'origin/main'.

Changes not staged for commit:
  (use "git add <file>..." to update what will be committed)
  (use "git restore <file>..." to discard changes in working directory)
        modified:   convertor.py
        modified:   help.py

no changes added to commit (use "git add" and/or "git commit -a")
```

Staging Changes

```
216ms Abdul.Rahman > git add convertor.py
Abdul.Rahman > git status
On branch main
Your branch is up to date with 'origin/main'.

Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
        modified:   convertor.py

Changes not staged for commit:
  (use "git add <file>..." to update what will be committed)
  (use "git restore <file>..." to discard changes in working directory)
        modified:   help.py

159ms Abdul.Rahman >
```

Committing Changes

```
Abdul.Rahman > git commit -m "Modified convertor.py"
[main 4629e01] Modified convertor.py
1 file changed, 1 insertion(+), 1 deletion(-)

707ms Abdul.Rahman >
```

Inspecting the Commit History

```
707ms Abdul.Rahman > git log
commit 4629e0199e351866fa8e646be4f40f6e4893acd5 (HEAD -> main)
Author: afk-Legacy <abdul.rahman100230@gmail.com>
Date: Wed Mar 15 19:31:26 2023 +0500

    Modified convertor.py

commit 4a95b9324bfb91724ff3c1a50ff7d533455a4146 (origin/main, origin/HEAD)
Author: afk-Legacy <83068093+afk-Legacy@users.noreply.github.com>
Date: Mon Jul 18 22:34:23 2022 +0500

    Delete encdec.py

commit e93732d43e08dbb85b50b13cf0709e84685c2a3c
Author: Legacy <jbond3132@gmail.com>
Date: Sat Jul 16 11:31:25 2022 +0500

    Upload Files

commit 8d2b2bce2b408e6d7ec0151ebbc036e449c99fd8
Author: afk-Legacy <83068093+afk-Legacy@users.noreply.github.com>
Date: Sat Jul 16 11:29:58 2022 +0500

    Update README.md
: ... skipping ...
commit 4629e0199e351866fa8e646be4f40f6e4893acd5 (HEAD -> main)
Author: afk-Legacy <abdul.rahman100230@gmail.com>
Date: Wed Mar 15 19:31:26 2023 +0500
```

```
203ms Abdul.Rahman > git log -p
commit 4629e0199e351866fa8e646be4f40f6e4893acd5 (HEAD -> main)
Author: afk-Legacy <abdul.rahman100230@gmail.com>
Date: Wed Mar 15 19:31:26 2023 +0500

    Modified convertor.py

diff --git a/convertor.py b/convertor.py
index fab0f1e..26a9c24 100644
--- a/convertor.py
+++ b/convertor.py
@@ -17,5 +17,5 @@ def b64_convert(string, isBase64):
     b64String = b64Bytes.decode("ascii")

     return b64String
+
+##### Assembly Related #####
```

Working with Branches

Create Branch

```
153ms Abdul.Rahman > git branch test-branch
Abdul.Rahman >
```

Hex2ARM-Bot | main ↑1 ~1 | 100

Hex2ARM-Bot | main ↑1 ~1 | 100

Inspect Branches

```
Abdul.Rahman > git branch -v
* main 4629e01 [ahead 1] Modified convertor.py
  test-branch 4629e01 Modified convertor.py

169ms Abdul.Rahman > git status
On branch main
Your branch is ahead of 'origin/main' by 1 commit.
(use "git push" to publish your local commits)

Changes not staged for commit:
  (use "git add <file>..." to update what will be committed)
  (use "git restore <file>..." to discard changes in working directory)
        modified:   help.py

no changes added to commit (use "git add" and/or "git commit -a")
160ms Abdul.Rahman > |
```

Hex2ARM-Bot | main ↑1 ~1 | 100

Hex2ARM-Bot | main ↑1 ~1 | 100

Hex2ARM-Bot | main ↑1 ~1 | 100

Stashing Changes

```
160ms Abdul.Rahman > git stash
Saved working directory and index state WIP on main: 4629e01 Modified convertor.py

955ms Abdul.Rahman > git status
On branch main
Your branch is ahead of 'origin/main' by 1 commit.
(use "git push" to publish your local commits)

nothing to commit, working tree clean

180ms Abdul.Rahman > git stash list
stash@{0}: WIP on main: 4629e01 Modified convertor.py

176ms Abdul.Rahman >
```

Hex2ARM-Bot | main ↑1 ~1 | 100

Hex2ARM-Bot | main ↑1 ~1 | 100

Hex2ARM-Bot | main ↑1 ~1 | 100

Hex2ARM-Bot | main ↑1 ~1 | 100

Hex2ARM-Bot | main ↑1 ~1 | 100

Popping Stash

```
176ms Abdul.Rahman > git stash pop
On branch main
Your branch is ahead of 'origin/main' by 1 commit.
(use "git push" to publish your local commits)

Changes not staged for commit:
  (use "git add <file>..." to update what will be committed)
  (use "git restore <file>..." to discard changes in working directory)
        modified:   help.py

no changes added to commit (use "git add" and/or "git commit -a")
Dropped refs/stash@{0} (914532989954999c2f36acfdc6d1d95117df4c15)

195ms Abdul.Rahman > git stash list
Abdul.Rahman >
```

Hex2ARM-Bot | main ↑1 ~1 | 100

Hex2ARM-Bot | main ↑1 ~1 | 100

Hex2ARM-Bot | main ↑1 ~1 | 100

Checking Out a Local Branch

```
641ms Abdul.Rahman > git checkout test-branch
Switched to branch 'test-branch'

156ms Abdul.Rahman >
```

Hex2ARM-Bot | 🔗 main ↑1 | 100

Hex2ARM-Bot | 🔗 test-branch # | 1 | 100

Committing in new local branch

```
260ms Abdul.Rahman > git add help.py

Abdul.Rahman > git commit -m "Modify help.py"
[test-branch 774208f] Modify help.py
1 file changed, 2 insertions(+), 1 deletion(-)

307ms Abdul.Rahman > git log
commit 774208f37cd08d5b883fcb203fbee1b46de14eea (HEAD -> test-branch)
Author: afk-Legacy <abdul.rahman100230@gmail.com>
Date: Wed Mar 15 21:53:15 2023 +0500

    Modify help.py
```

Hex2ARM-Bot | 🔗 test-branch # ~1 | 100

Hex2ARM-Bot | 🔗 test-branch # ~1 | 100

Hex2ARM-Bot | 🔗 test-branch # | 100

Merging Branches

```
158ms Abdul.Rahman > git checkout main
Switched to branch 'main'
Your branch is ahead of 'origin/main' by 1 commit.
(use "git push" to publish your local commits)

174ms Abdul.Rahman > git merge test-branch
Updating 4629e01..774208f
Fast-forward
 help.py | 3 ++-
1 file changed, 2 insertions(+), 1 deletion(-)

193ms Abdul.Rahman > git log
commit 774208f37cd08d5b883fcb203fbee1b46de14eea (HEAD -> main, test-branch, list)
Author: afk-Legacy <abdul.rahman100230@gmail.com>
Date: Wed Mar 15 21:53:15 2023 +0500

    Modify help.py

commit 4629e0199e351866fa8e646be4f40f6e4893acd5
Author: afk-Legacy <abdul.rahman100230@gmail.com>
Date: Wed Mar 15 19:31:26 2023 +0500

    Modified convertor.py
```

Hex2ARM-Bot | 🔗 test-branch # | 100

Hex2ARM-Bot | 🔗 main ↑1 | 100

Hex2ARM-Bot | 🔗 main ↑2 | 100

Creating Local Branch

```
197ms Abdul.Rahman > git branch local-branch

Abdul.Rahman > git branch
local-branch
* main
  r
  remove
  test-branch

154ms Abdul.Rahman > git checkout local-branch
Switched to branch 'local-branch'
```

Task-2-Git-Practice-Remote-Repo | 🔗 main =

Task-2-Git-Practice-Remote-Repo | 🔗 main =

Task-2-Git-Practice-Remote-Repo | 🔗 main =

Commit to local branch

```
188ms  Abdul.Rahman > git add local.html
273ms  Abdul.Rahman > git commit -m "Add local.html"
[local-branch 7a4c352] Add local.html
1 file changed, 11 insertions(+)
create mode 100644 local.html
414ms  Abdul.Rahman > |
```