

DevOps Laboratory

Submitted To Partial Fulfilment Of The Requirement
For The Award Of Degree Of Bachelor Of Technology
Information Technology



GNDEC LOGO

Submitted By:- Shivay Bhandari
URN:-1905398
CRN:-1921142
Branch:-Information Technology
SEC:-B
Submitted To:- Dr Harjot Kaur

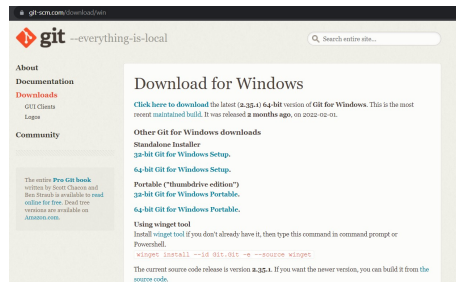
April 2022

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1 Practical

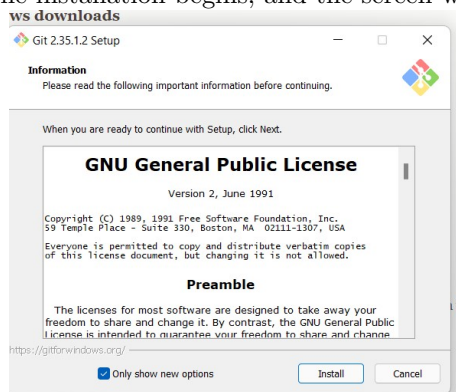
Install GIT

To download the Git installer, visit the Git's official site and go to download page. The link for the download page is <https://git-scm.com/downloads>. The page looks like as:-

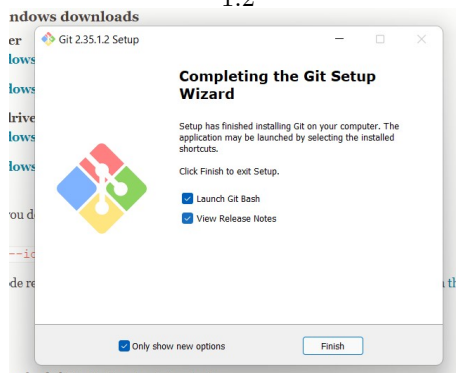


1.1

Click on the downloaded installer file and select yes to continue. After the selecting yes the installation begins, and the screen will look like as:-



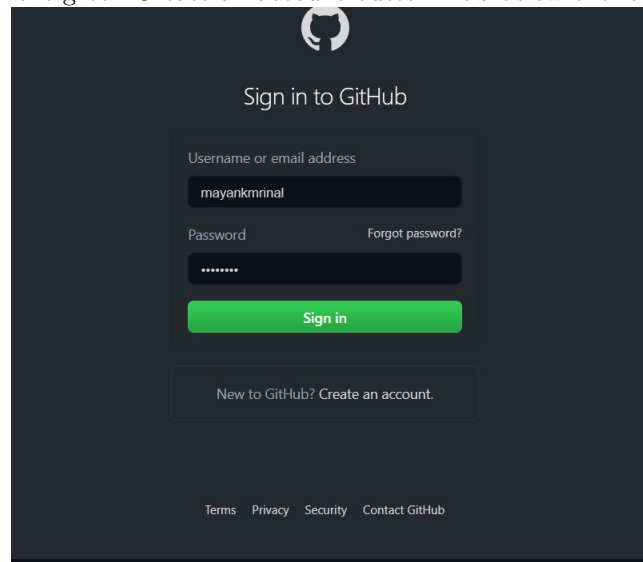
1.2



2 Practical

Create account on GITHUB

1. Go to <https://github.com/join> in a web browser. You can use any web browser on your computer, phone, or tablet to join. Some ad blockers, including uBlock ...
2. Enter your personal details. In addition to creating a username and entering an email address, you'll also have to create a password. Your password must be ...
3. Click the green Create an account button. It's below the form.



2.1

Git supports a command called `git config` that lets you get and set configuration variables that control all facets of how Git looks and operates.

It is used to set Git configuration values on a global or local project level. Setting `user.name` and `user.Email` are the necessary configuration options as your name and email will show up in your commit messages.

Setting username

The username is used by the Git for each commit.

1. `git config --global user.name "MayankMishra"`

To Set email id

The Git uses this email id for each commit.

2. `git config --global user.email "mayankmishrareal@gmail.com"`

```
Mayank Mishra@DESKTOP-22E3PML MINGW64 ~ (master)
$ git config --global user.name "Mayank Mishra"

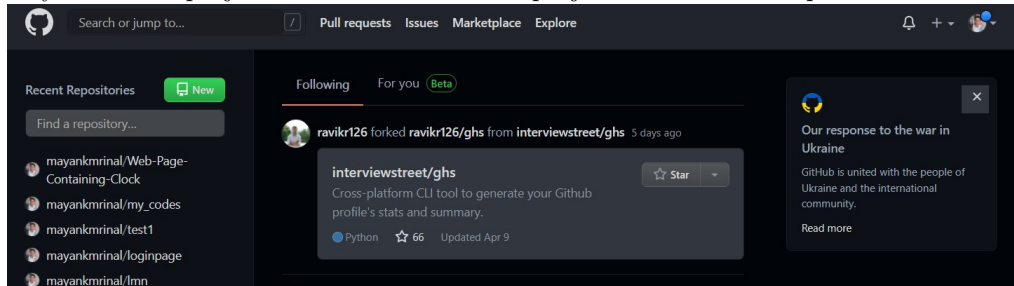
Mayank Mishra@DESKTOP-22E3PML MINGW64 ~ (master)
$ git config --global user.email "mayankmishrareal@gmail.com"
```

2.2

3 Practical

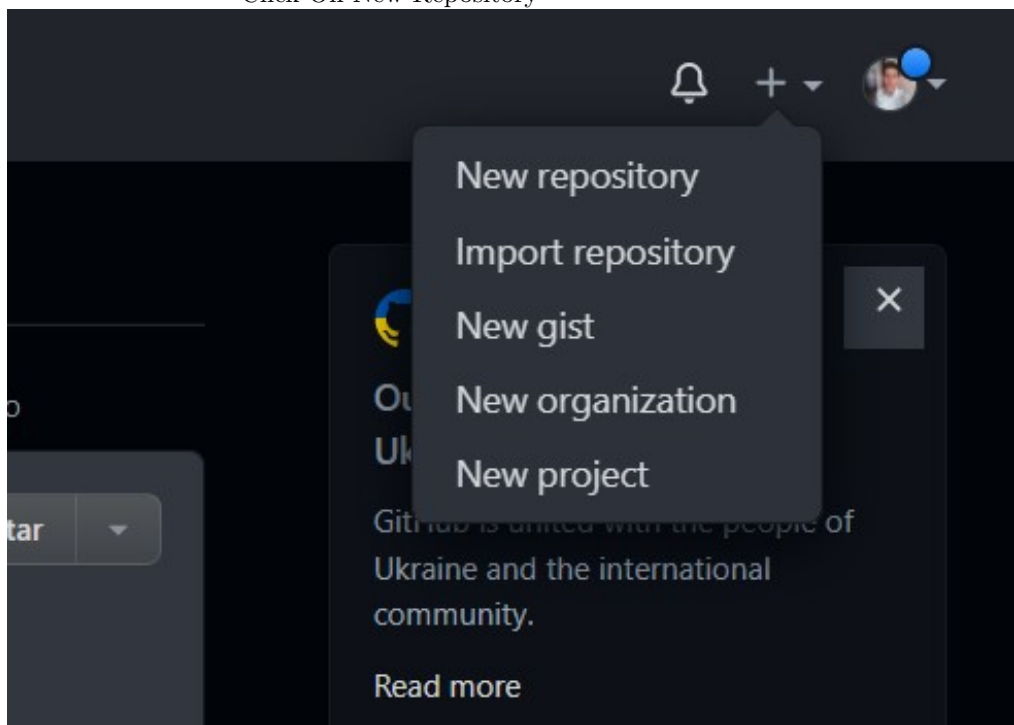
Create Repository using GIT/ GITHUB

Repository contains the collection of the files as well as the history of changes made to those files. Repository in Git is considered as your project folder. A repository has all the project-related data. Distinct projects have distinct repositories.



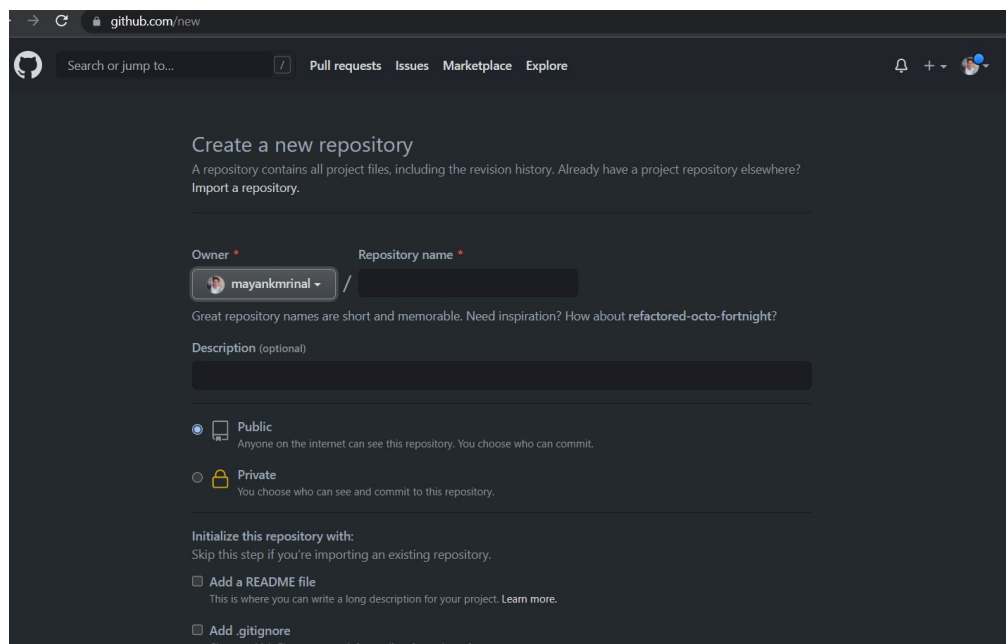
3.1

Click On New Repository



3.2

Under Repository name fill repository name, which we wish to create.




3.3

Choose option as public before creating repository, if we wish make it visible to world else private if personal file is there. Click on green button create repository to create repository.

Owner *


Repository name *

 mayankmrinal ▾


/ Dev_ops ✓

Great repository names are short and memorable. Need inspiration? How about [refactored-octo-fortnight?](#)

Description (optional)

☒  **Public**

Anyone on the internet can see this repository. You choose who can commit.

☐  **Private**

You choose who can see and commit to this repository.

Initialize this repository with:

Skip this step if you're importing an existing repository.

☐ **Add a README file**


This is where you can write a long description for your project. [Learn more.](#)

☐ **Add .gitignore**

Choose which files not to track from a list of templates. [Learn more.](#)

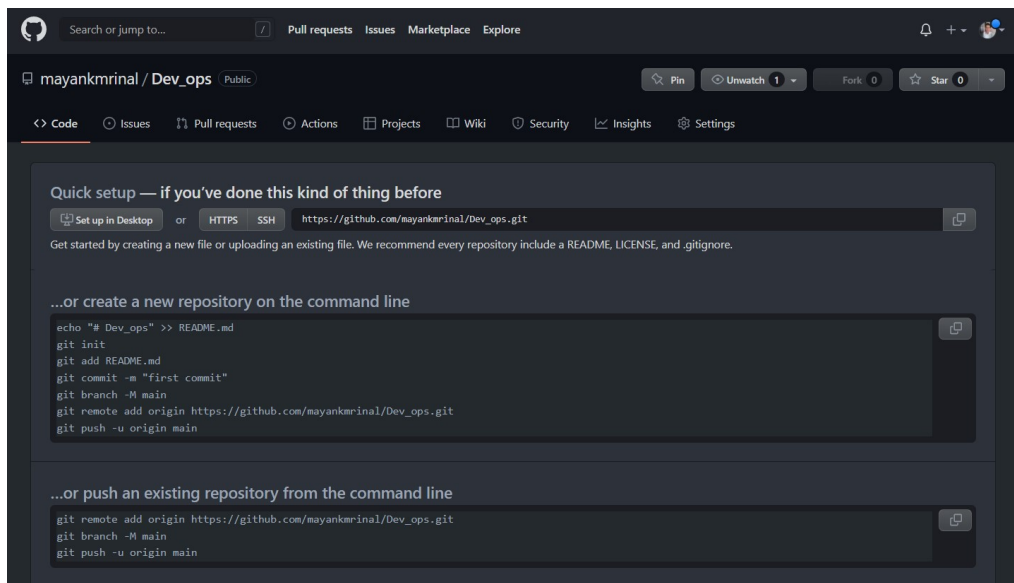
☐ **Choose a license**

A license tells others what they can and can't do with your code. [Learn more.](#)

 You are creating a public repository in your personal account.

Create repository

3.4 Repository Created



3.5

4 Practical

Create/Delete/Merge Branches

Create Branch

We can create a new branch with the help of the git branch command.

gitbranch < branchname >

```
Mayank Mishra@DESKTOP-22E3PML MINGW64 ~ (master)
$ git branch alpha
```

4.1

Delete Branches

You can delete the specified branch. It is a safe operation.

In this command, Git prevents you from deleting the branch if it has unmerged changes.

gitbranch -d < branchname >

```
Mayank Mishra@DESKTOP-22E3PML MINGW64 ~ (master)
$ git branch -d alpha
```

4.2

Merge Branch

Git allows us to merge the other branch with the currently active branch. We can

merge two branches with the help of git merge command. Below command is used to

merge the branches:

gitpushorigin -delete < branchname >

```
Mayank Mishra@DESKTOP-22E3PML MINGW64 ~ (master)
$ git merge alpha
```

4.3

5 Installation Of Docker

5.1 Step are as :-

Download Docker.

Double-click InstallDocker. ...

Follow the Install Wizard: accept the license, authorize the installer, and proceed with the install.

Click Finish to launch Docker.

Docker starts automatically.

Docker loads a “Welcome” window giving you tips and access to the Docker documentation.

5.2 Creating Container

To create Container

`docker container run -i -t --name cl alpine ash`

To start our container

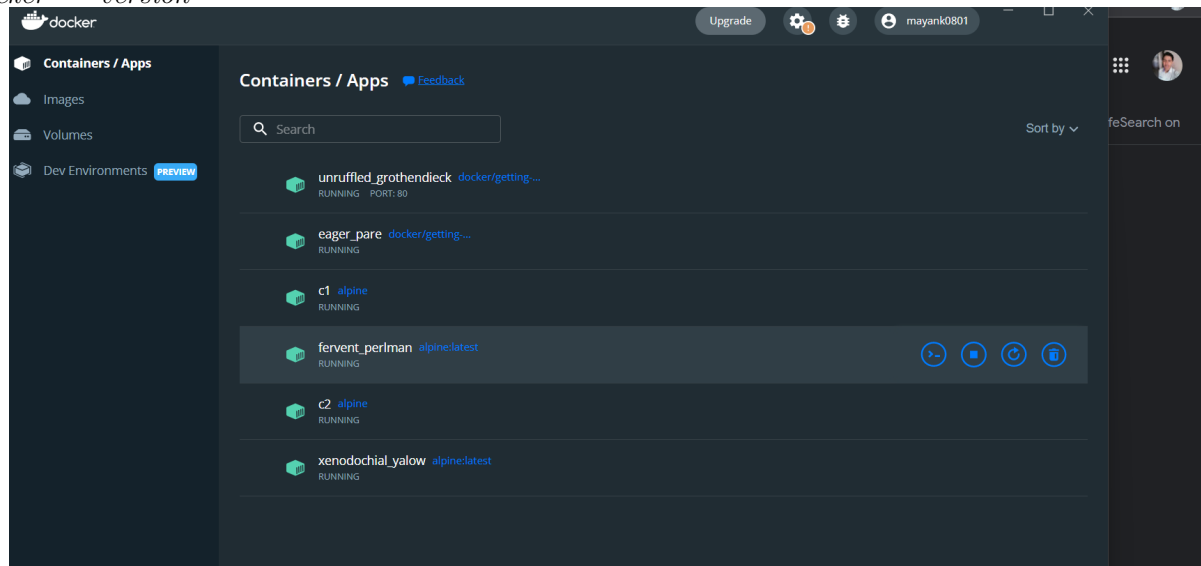
`docker run`

To check container is created or not

`docker container ls`

To check version

`docker --version`



5.1

5.3 Downloading Images

To check image is created or not

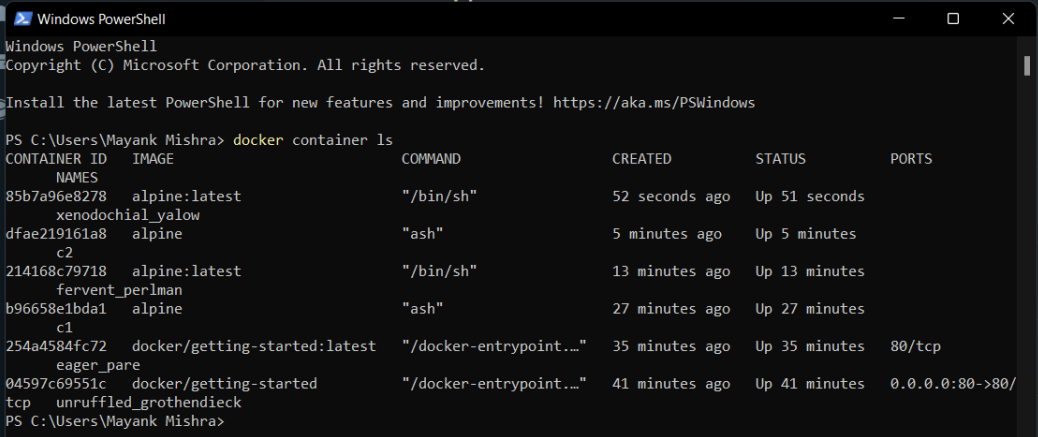
`docker image ls`

Command used for downloading Images:-

`docker image pull alpine`

Command used to upload Images:-

`docker image push alpine`



```
PS C:\Users\Mayank Mishra> docker container ls
```

CONTAINER ID	IMAGE	COMMAND	CREATED	STATUS	PORTS
85b7a96e8278	alpine:latest	"/bin/sh"	52 seconds ago	Up 51 seconds	
dfae219161a8	alpine	"ash"	5 minutes ago	Up 5 minutes	
214168c79718	alpine:latest	"/bin/sh"	13 minutes ago	Up 13 minutes	
b96658e1bda1	alpine	"ash"	27 minutes ago	Up 27 minutes	
254a4584fc72	docker/getting-started:latest	"/docker-entrypoint..."	35 minutes ago	Up 35 minutes	80/tcp
04597c69551c	docker/getting-started	"/docker-entrypoint..."	41 minutes ago	Up 41 minutes	0.0.0.0:80->80/

```
PS C:\Users\Mayank Mishra>
```