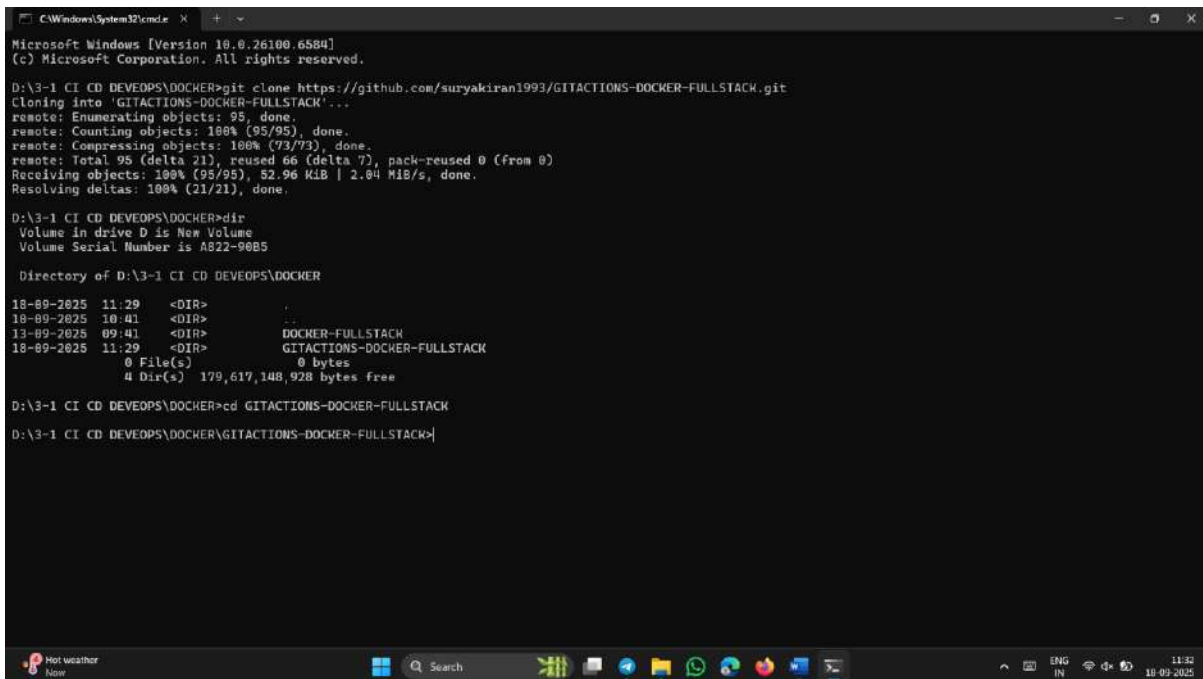


LAB 10 GIT ACTIONS

- >Deployment of docker full stack project using git actions.
- >git actions used for automatic deployment of image when there is change in the existing code no need of manual build of images again
- >Cloning existing repository
- >dir (to check directories)
- >cd GITACTIONS-DOCKER-FULLSTACK (changing dir)



```
C:\Windows\System32\cmd.exe
Microsoft Windows [Version 10.0.26100.6584]
(c) Microsoft Corporation. All rights reserved.

D:\3-1 CI CD DEVEOPS\DOCKER>git clone https://github.com/suryakiran1993/GITACTIONS-DOCKER-FULLSTACK.git
Cloning into 'GITACTIONS-DOCKER-FULLSTACK'...
remote: Enumerating objects: 95, done.
remote: Counting objects: 100% (95/95), done.
remote: Compressing objects: 100% (73/73), done.
remote: Total 95 (delta 21), reused 66 (delta 7), pack-reused 0 (from 0)
Receiving objects: 100% (95/95), 52.96 KiB | 2.84 MiB/s, done.
Resolving deltas: 100% (21/21), done.

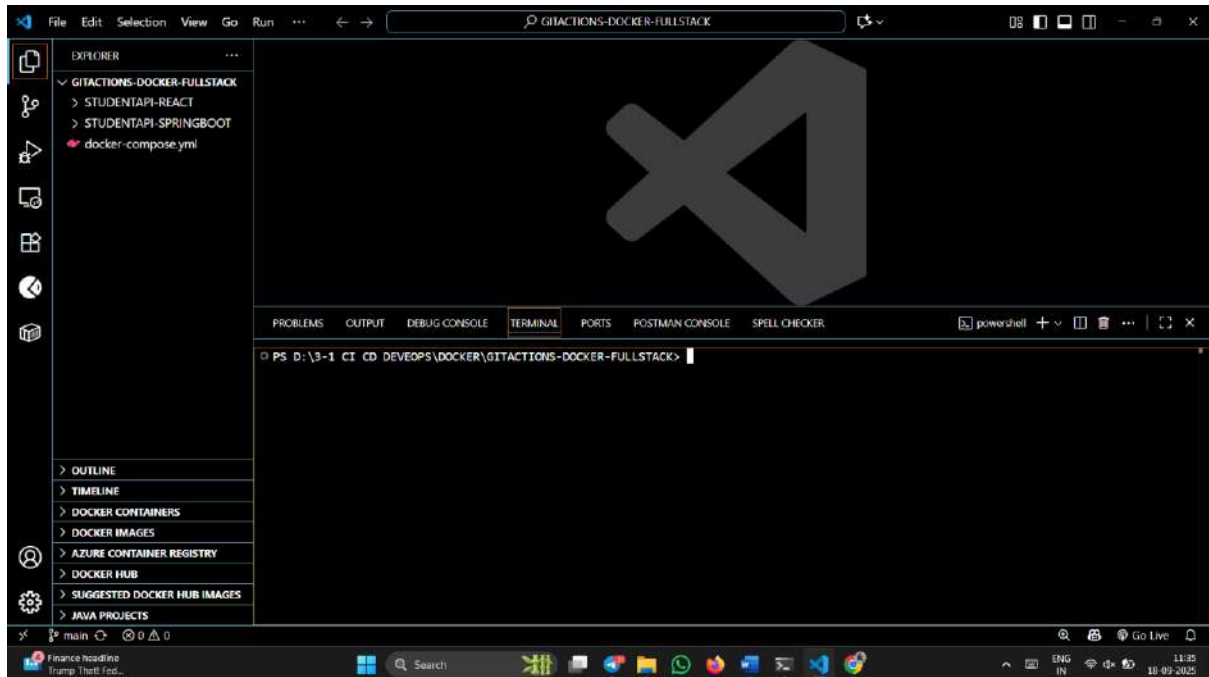
D:\3-1 CI CD DEVEOPS\DOCKER>dir
Volume in drive D is New Volume
Volume Serial Number is A822-90B5

Directory of D:\3-1 CI CD DEVEOPS\DOCKER

18-09-2025  11:29    <DIR>          .
18-09-2025  10:41    <DIR>          ..
18-09-2025  09:41    <DIR>          DOCKER-FULLSTACK
18-09-2025  11:29    <DIR>          GITACTIONS-DOCKER-FULLSTACK
               0 File(s)              0 bytes
               4 Dir(s) 179,617,148,928 bytes free

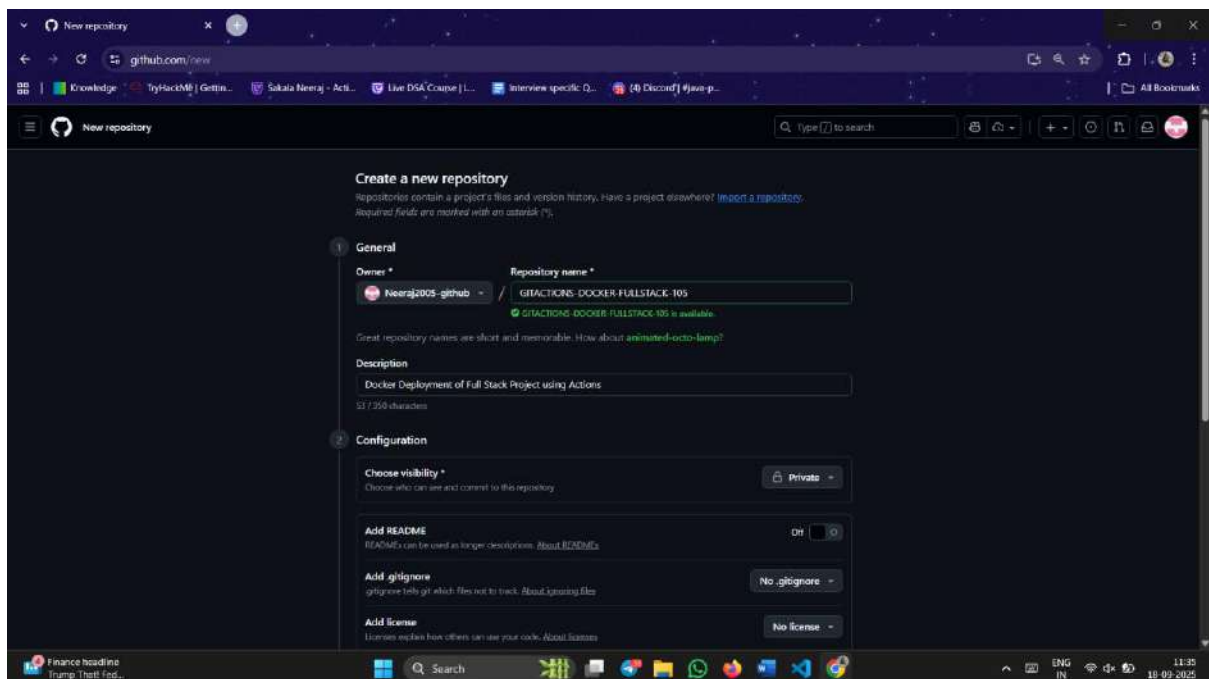
D:\3-1 CI CD DEVEOPS\DOCKER>cd GITACTIONS-DOCKER-FULLSTACK
D:\3-1 CI CD DEVEOPS\DOCKER\GITACTIONS-DOCKER-FULLSTACK>
```

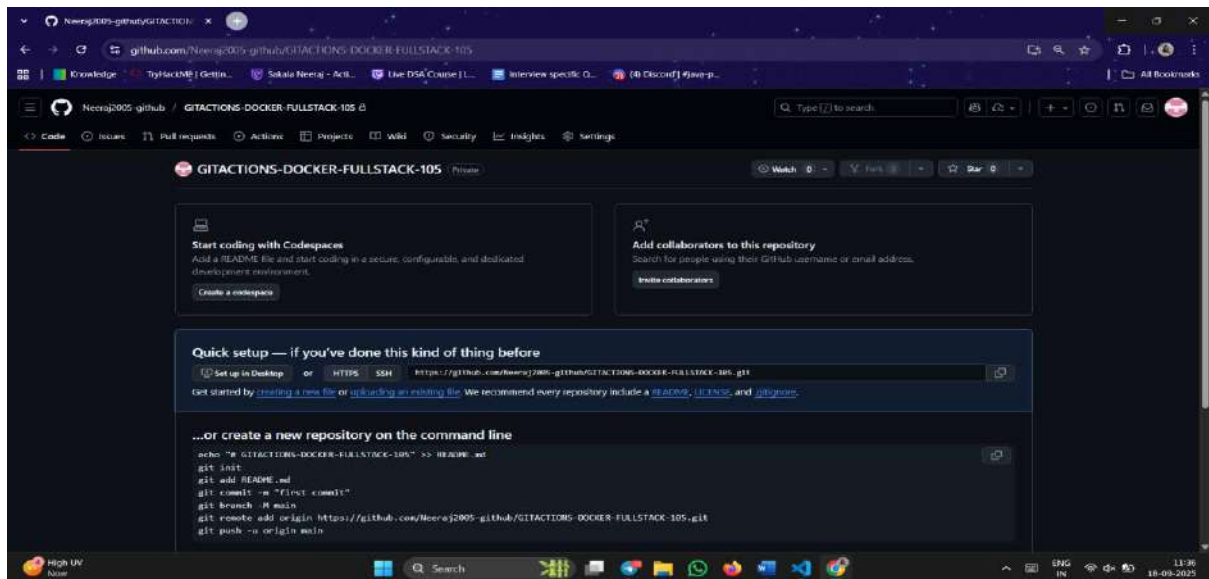
->project opened in vscode containing folders frontend with frontend.Dockerfile, backend with backend.Dockerfile and docker-compose.yml file



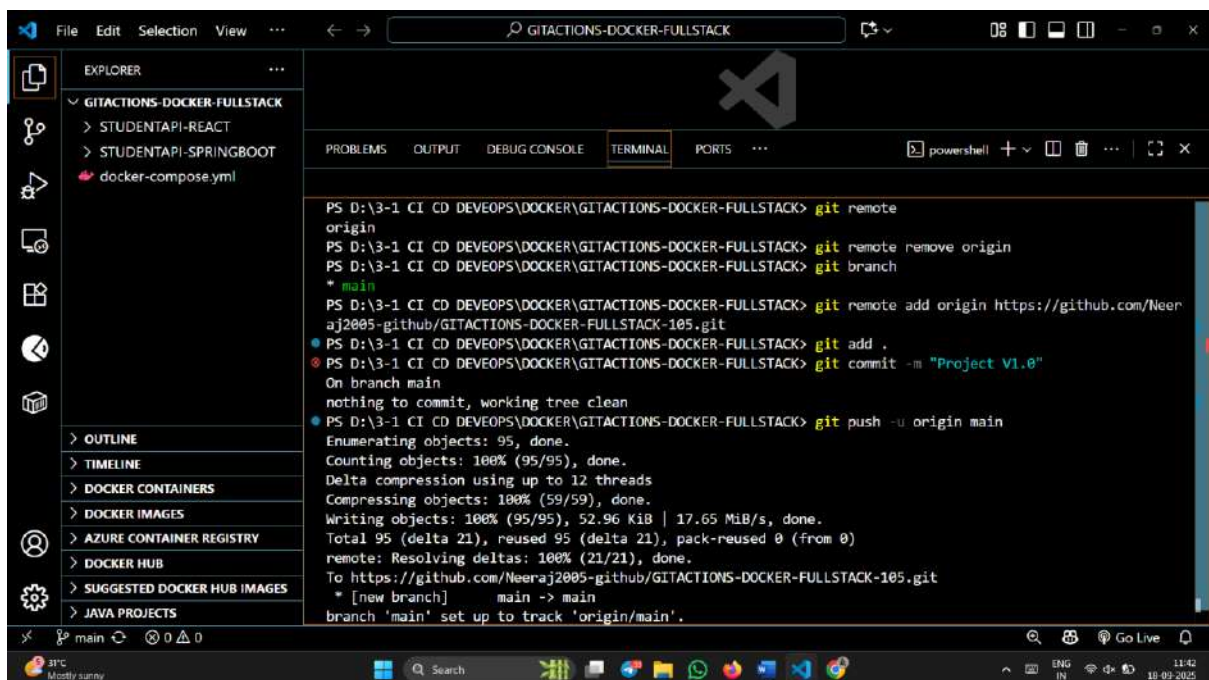
->Created a git repository name GITACTIONS-DOCKER-FULLSTACK-105

->visibility public

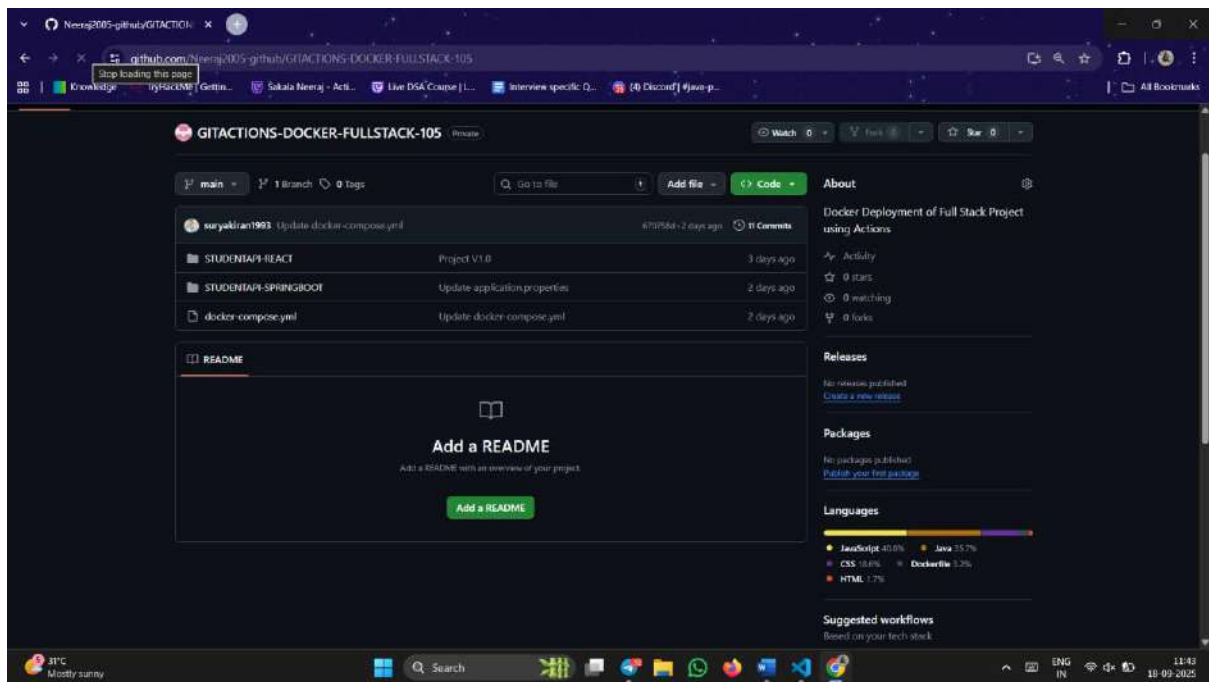




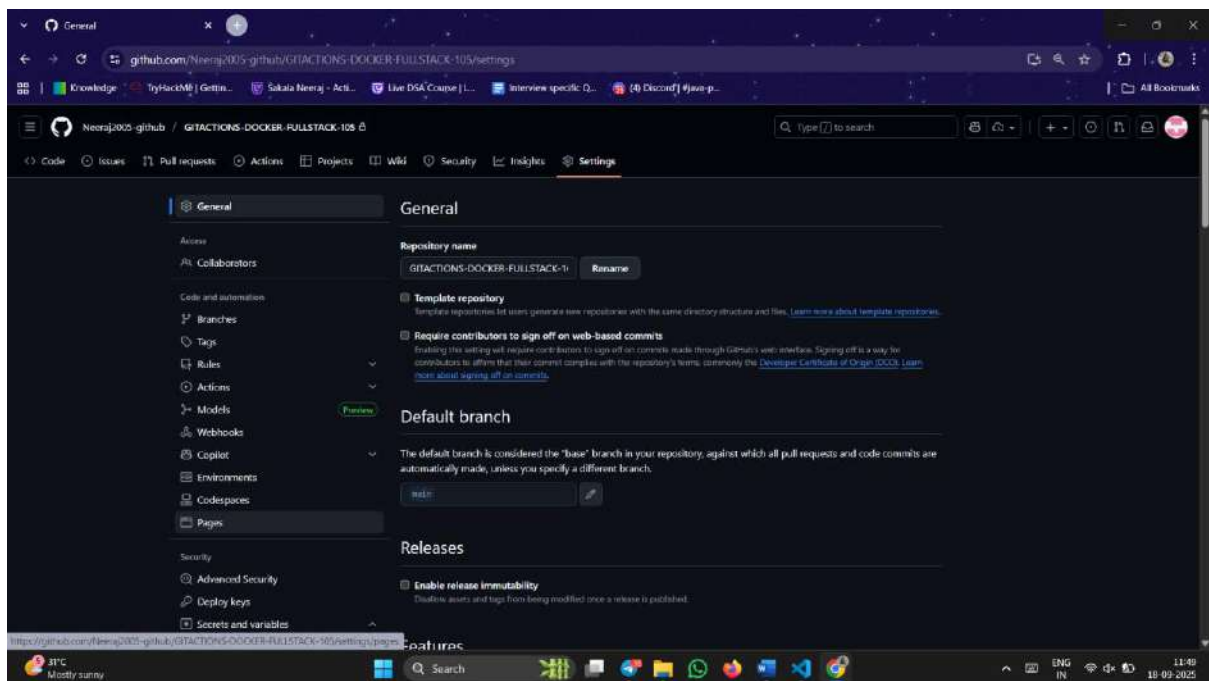
- >Add the project from local to my git repository
- >git remote remove origin (remove old origin)
- > git add . (add files to staging area)
- >git commit -m "" (commit message)
- >git remote add origin ""(add to origin) and make sure to be in main branch (git branch)
- >git branch -m main
- >git push -u origin main (git push)



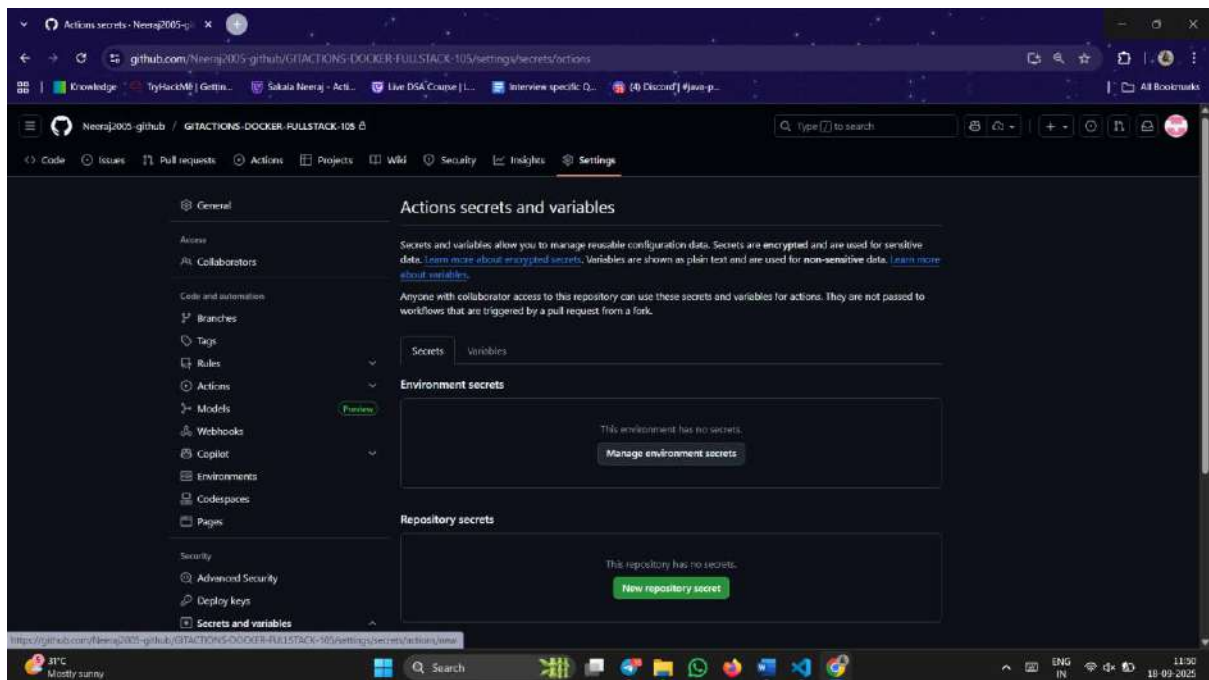
->github repo with project



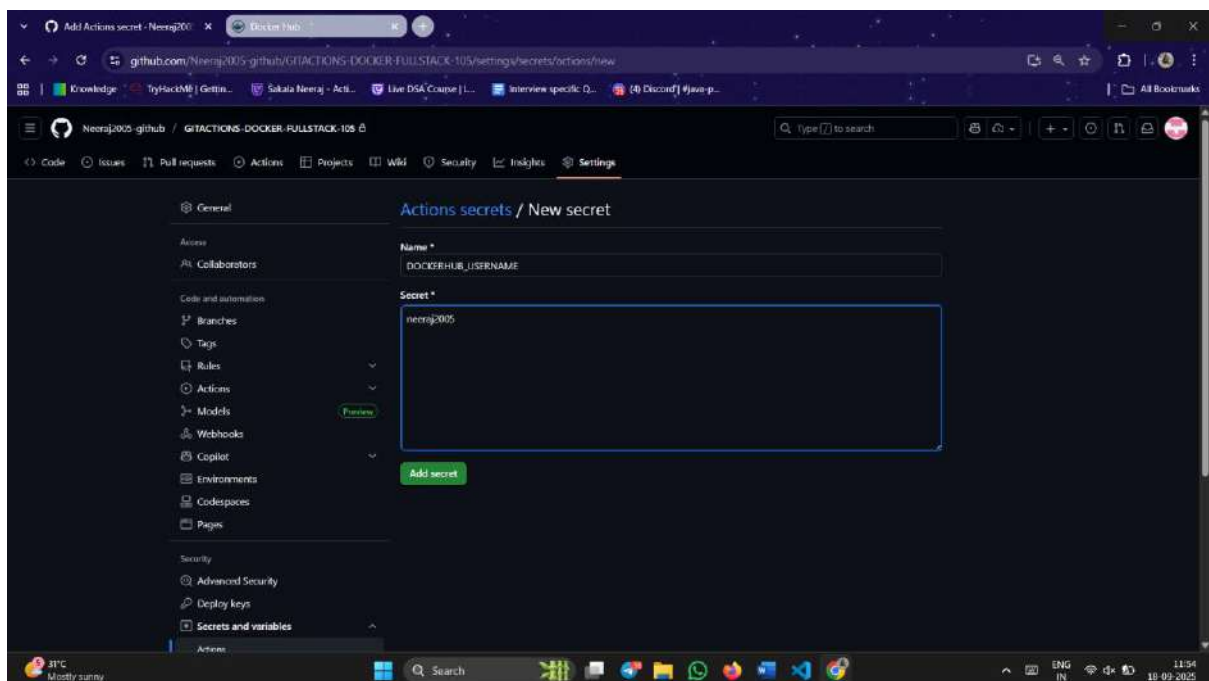
Setting->secret and variables->actions (to add secret variables)



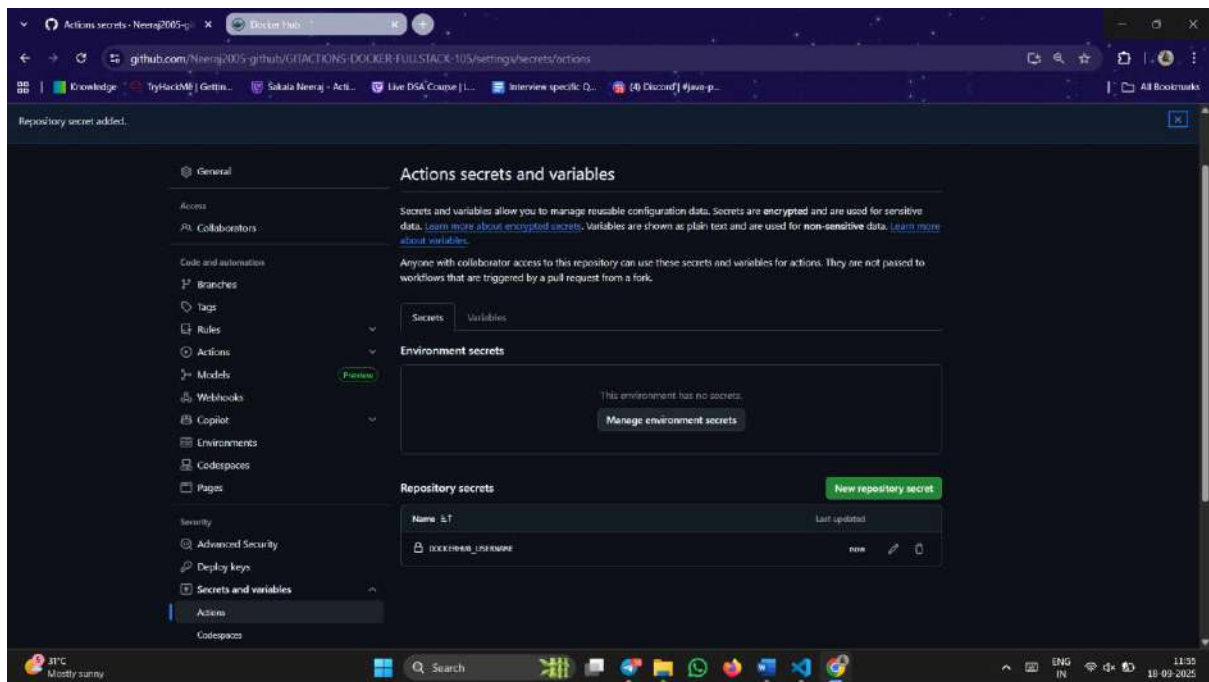
->New repository secret add



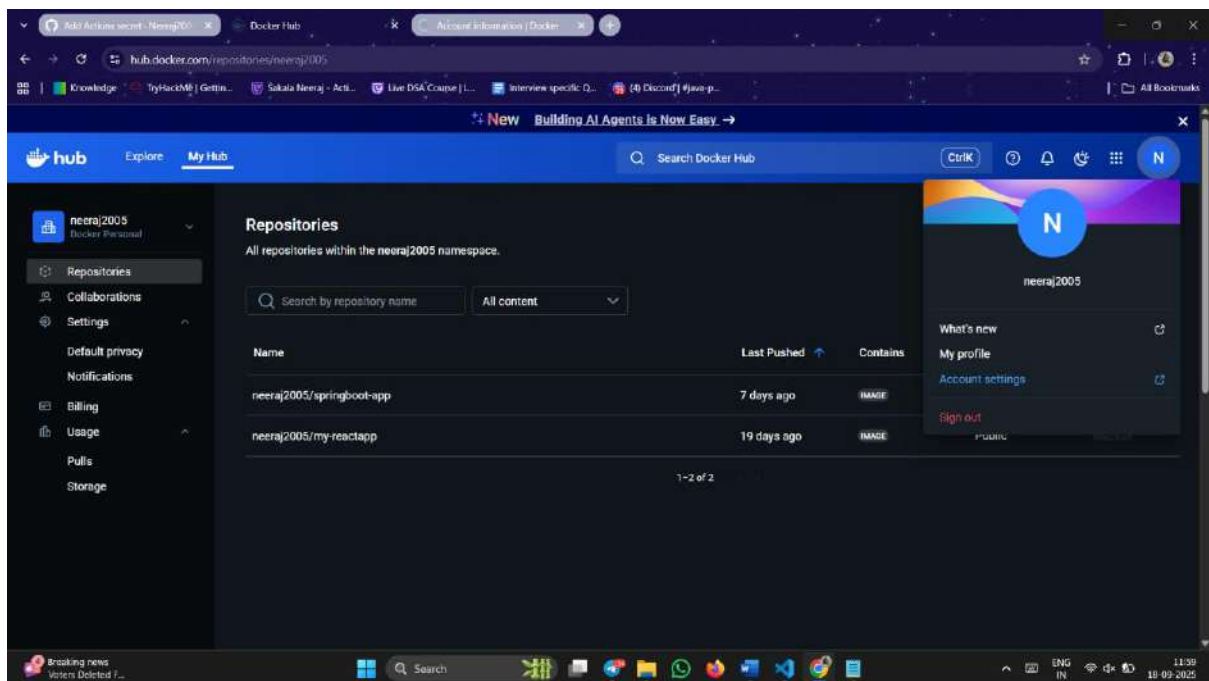
->Add dockerhub username as secretvariable with secret name as DOCKERHUB_USERNAME (can add any name but need to change in docker-image.yml)

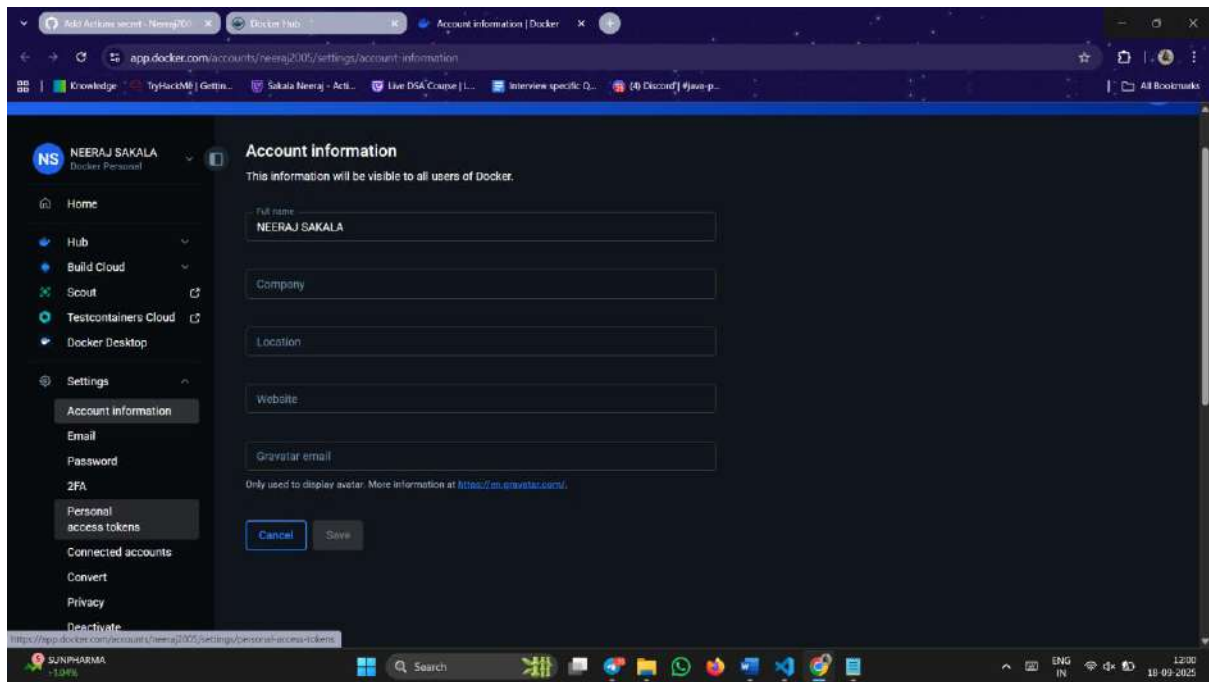


->secret variable DOCKERHUB_USERNAME added

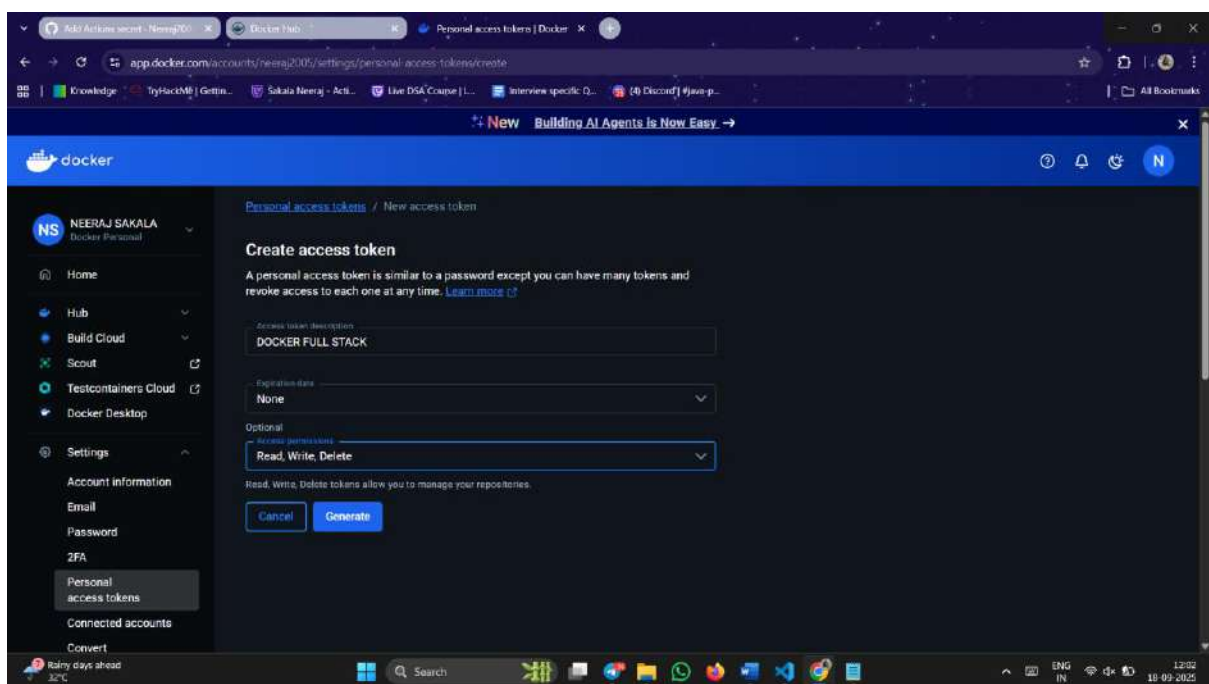


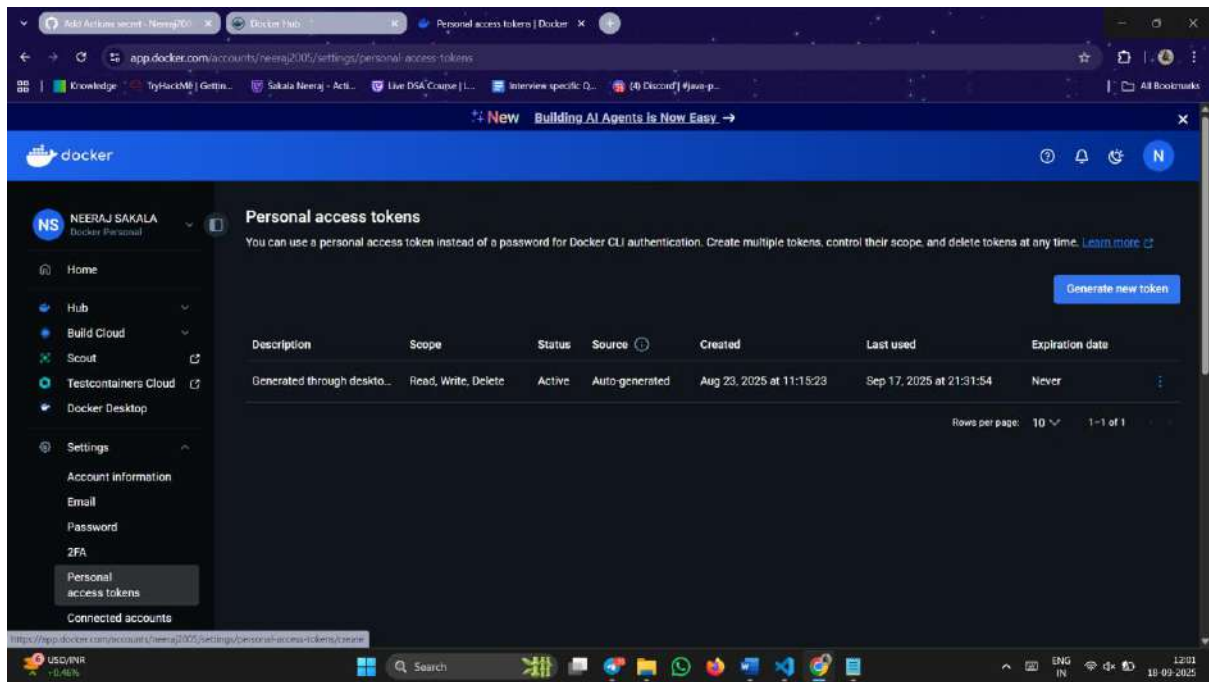
->Dockerhub ->profile->Account settings->Personal access tokens



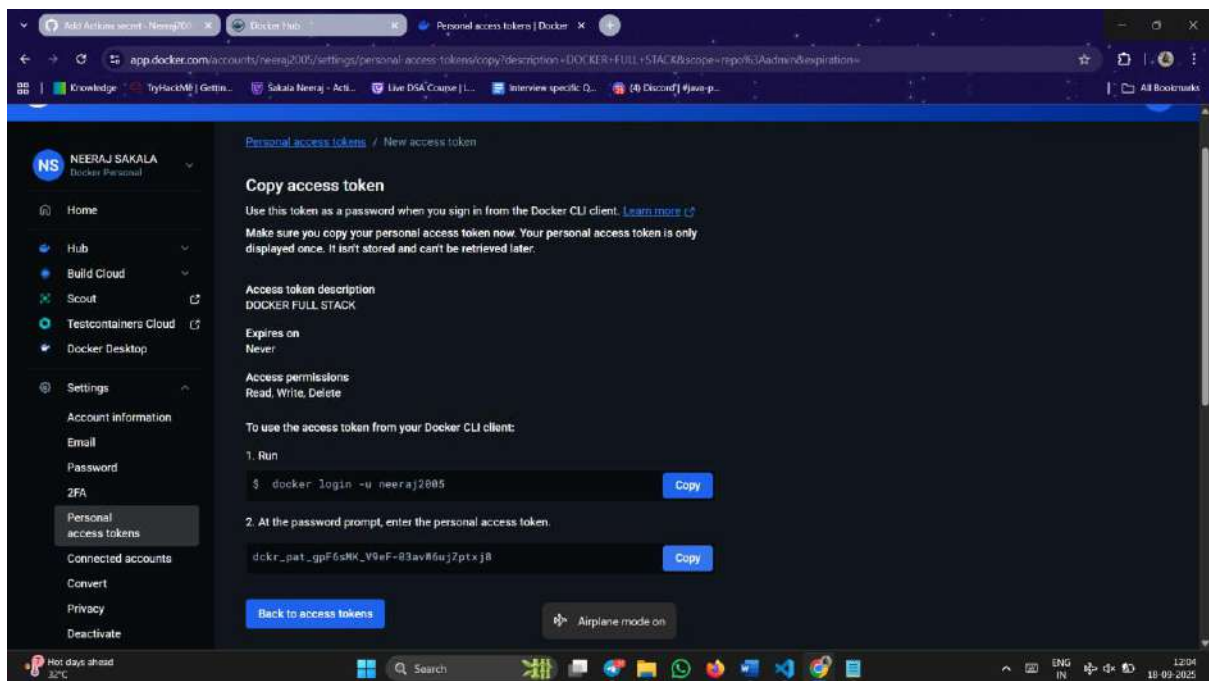


->Personal access tokens and Create a new token with description and expiration date , make sure give Write,Read and Delete ->Generate

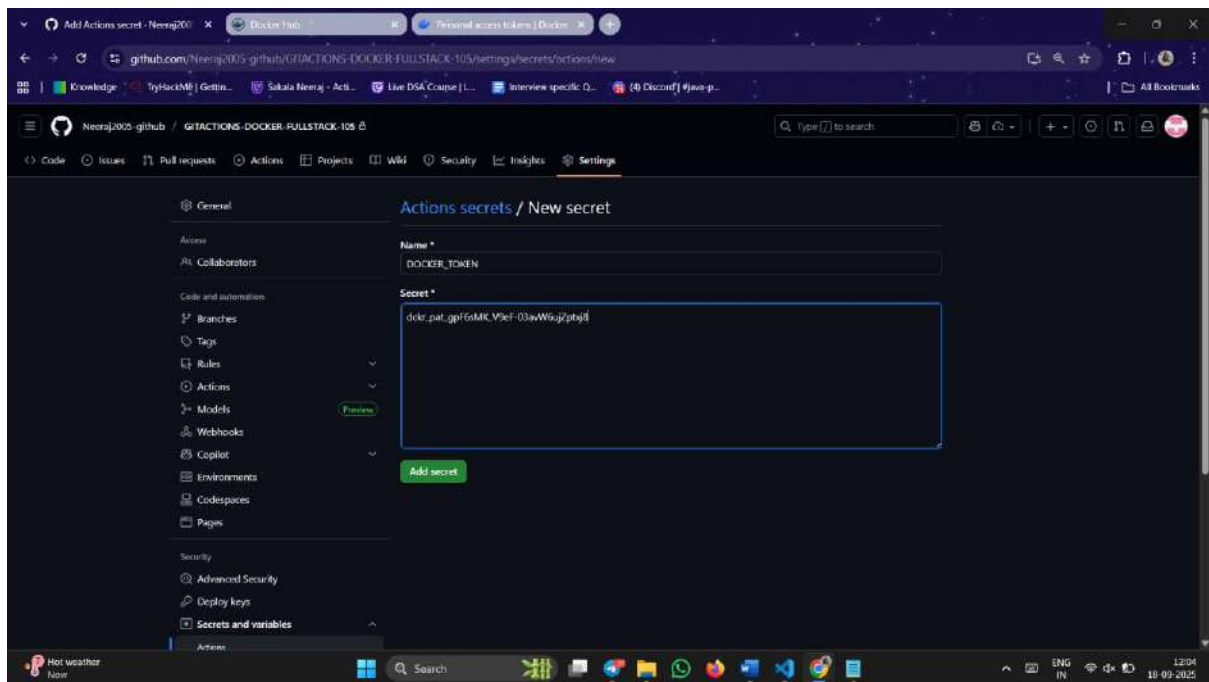




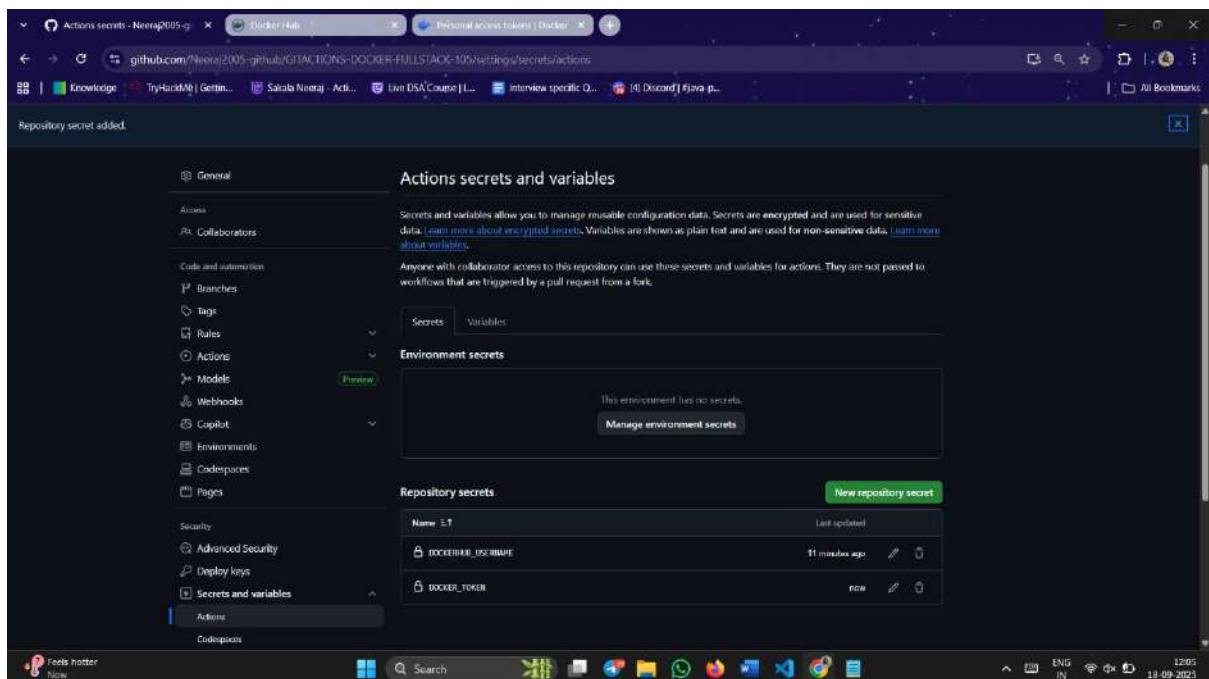
->copy the personal access token for adding as secret variable token



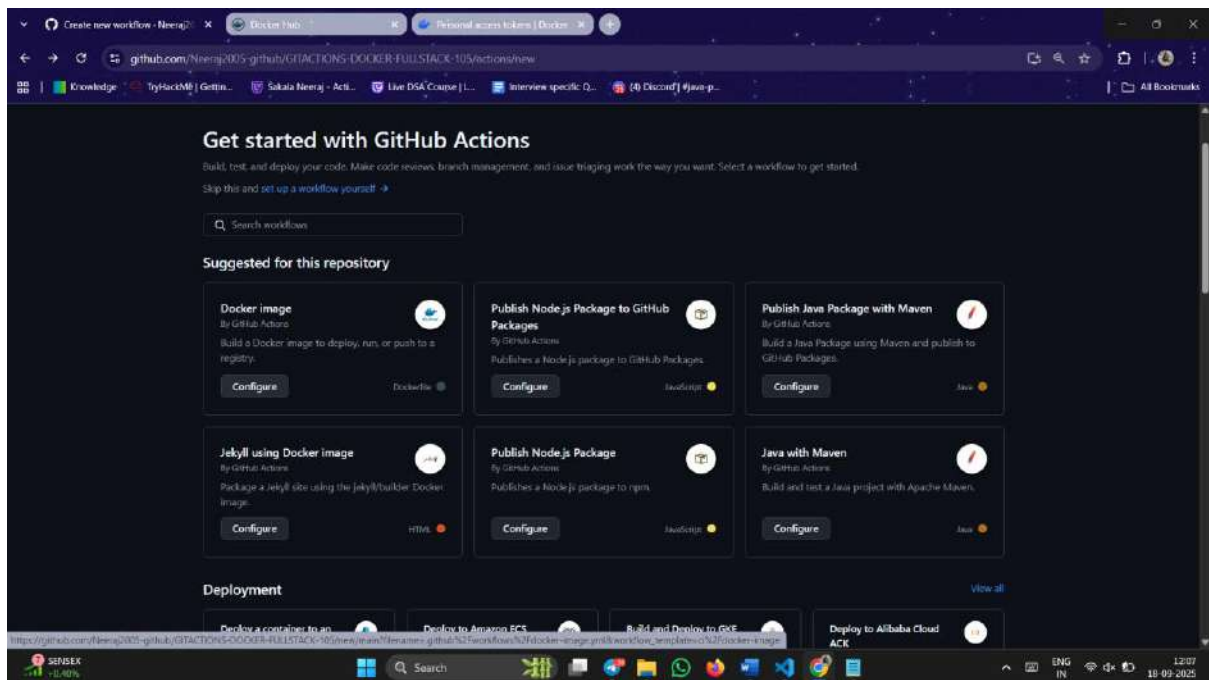
->Add the copied token to secret variable as DOCKERHUB_SECRET properly without any space.



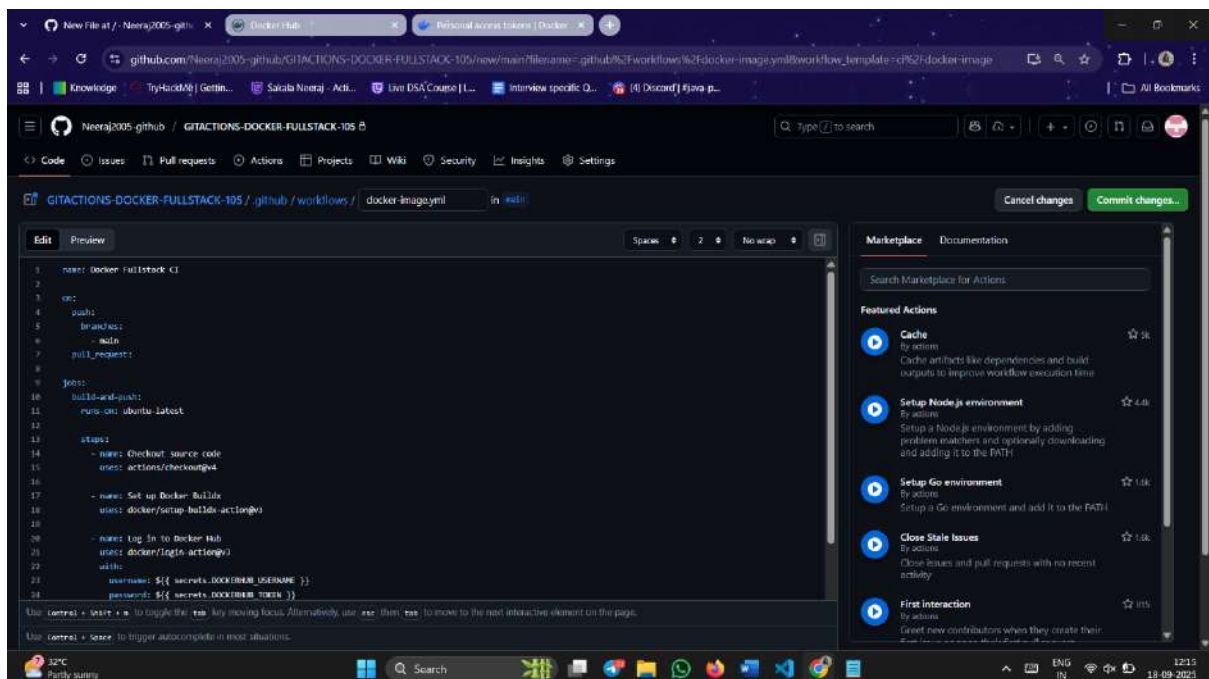
->Add secret



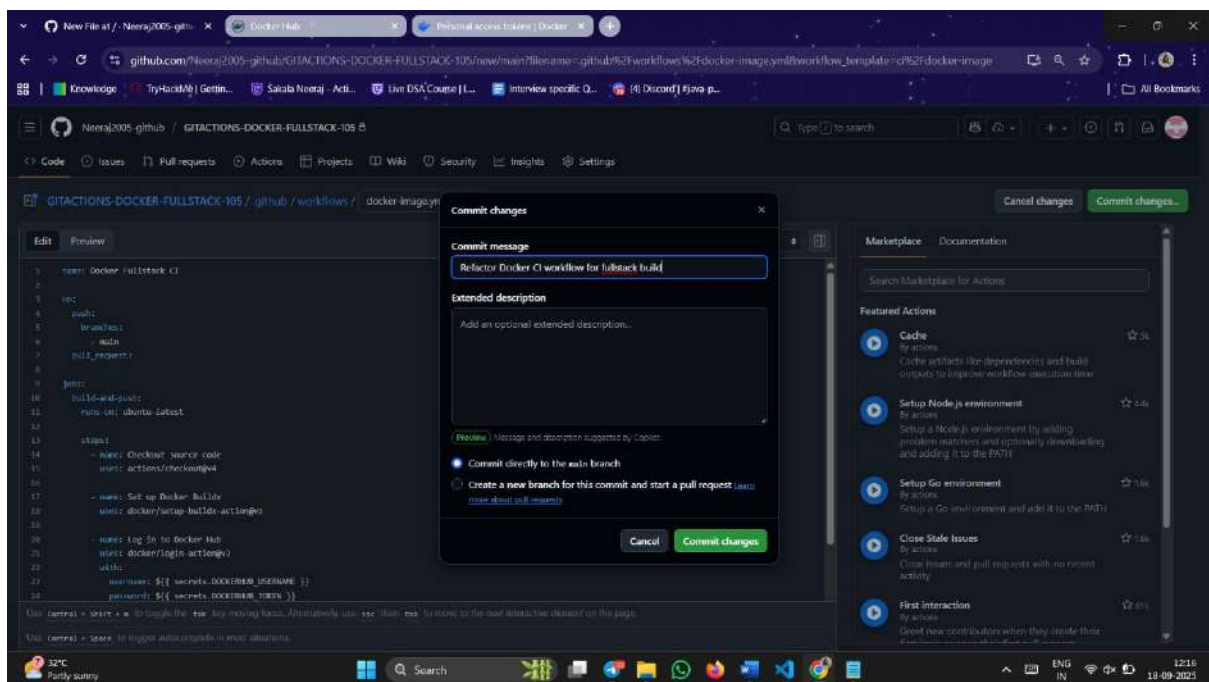
->Actions and configure Docker image as below:



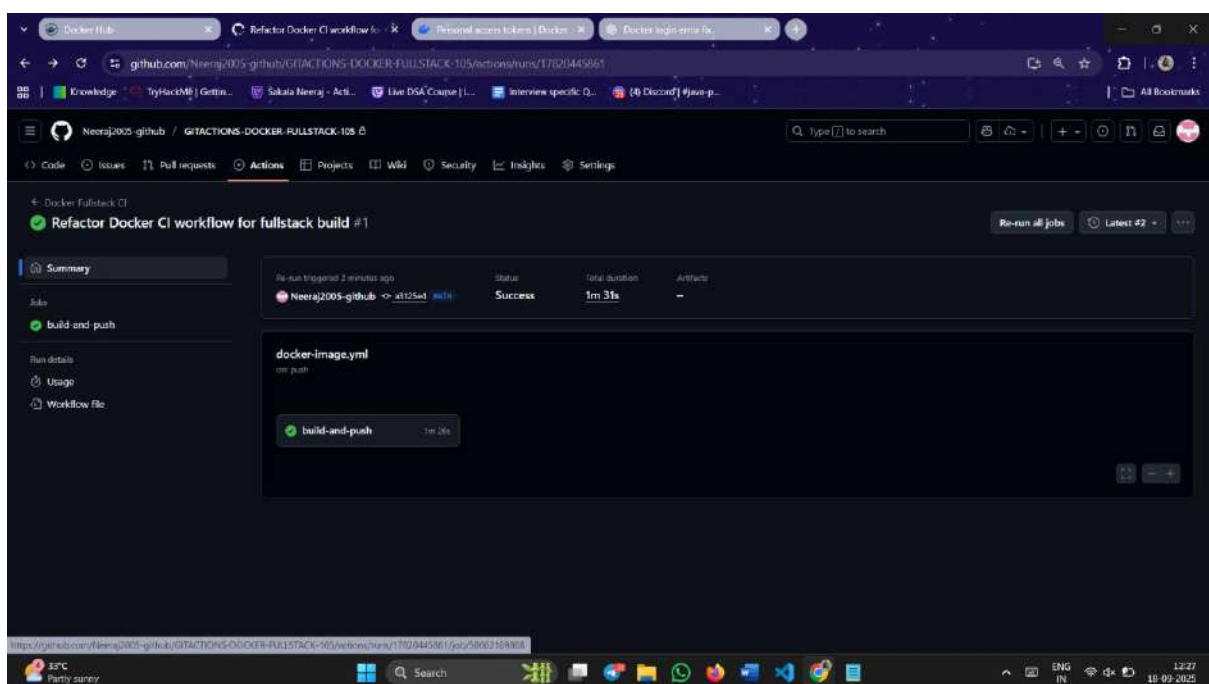
->The configured .yaml file with secret variables and dockerhub username make sure to be correct names of variables created and image name



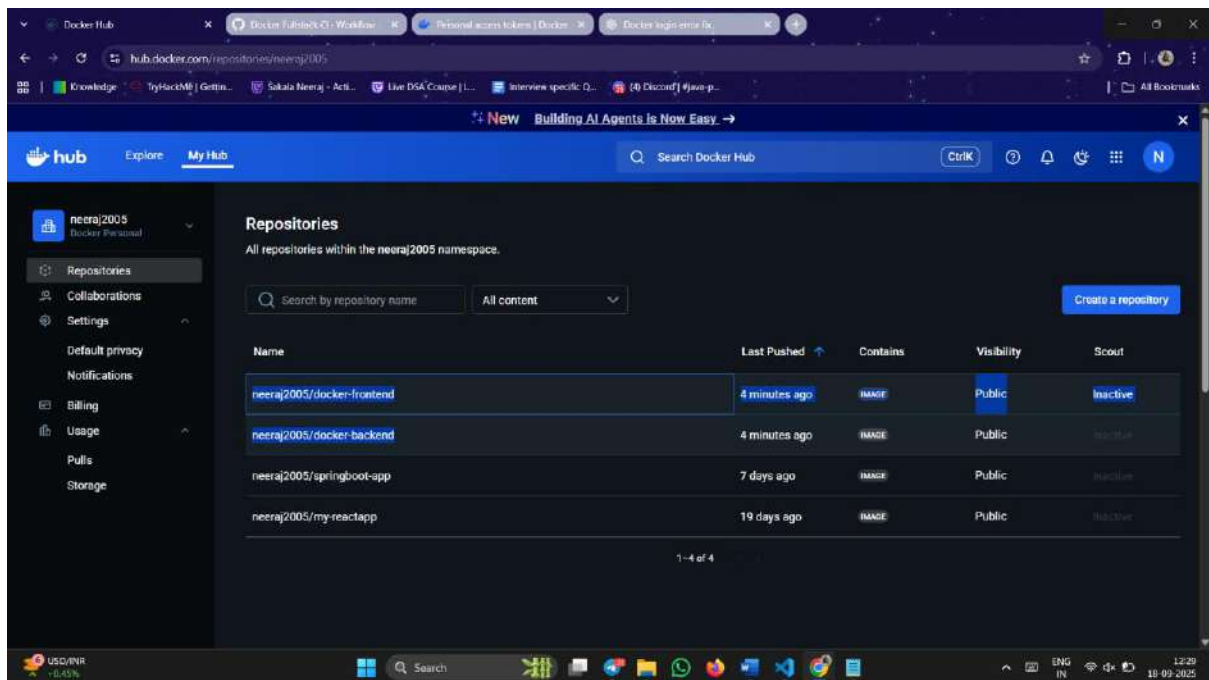
->commit changes



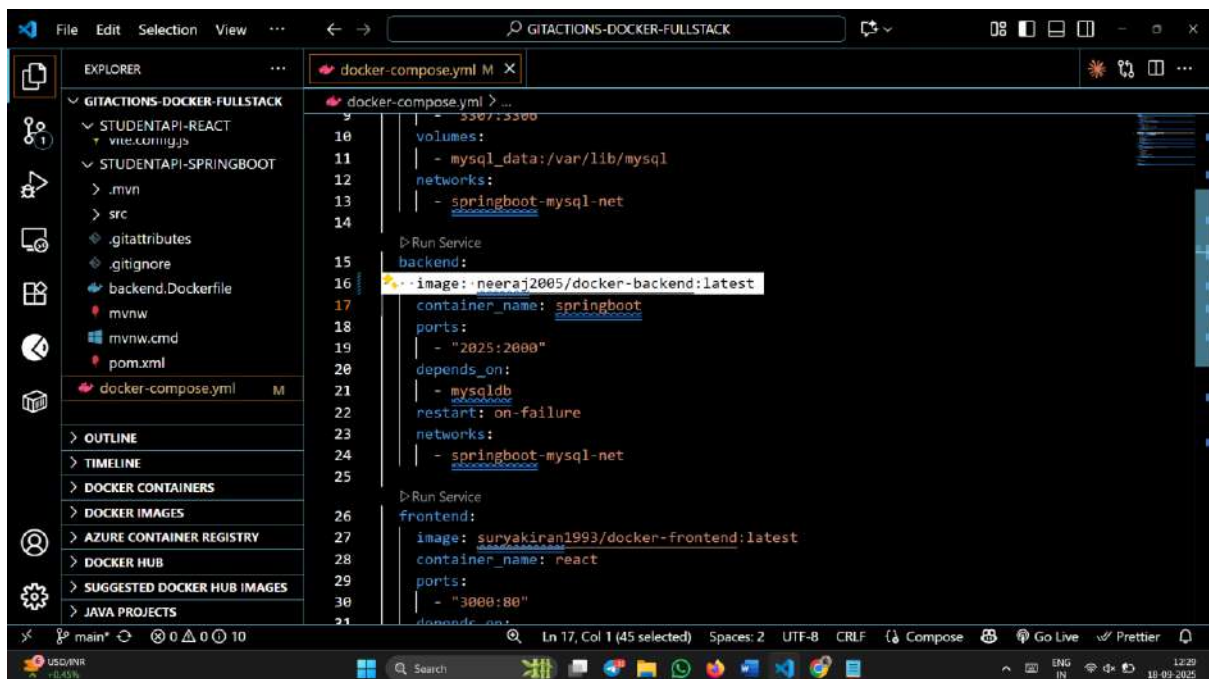
->go to actions and check for successful build



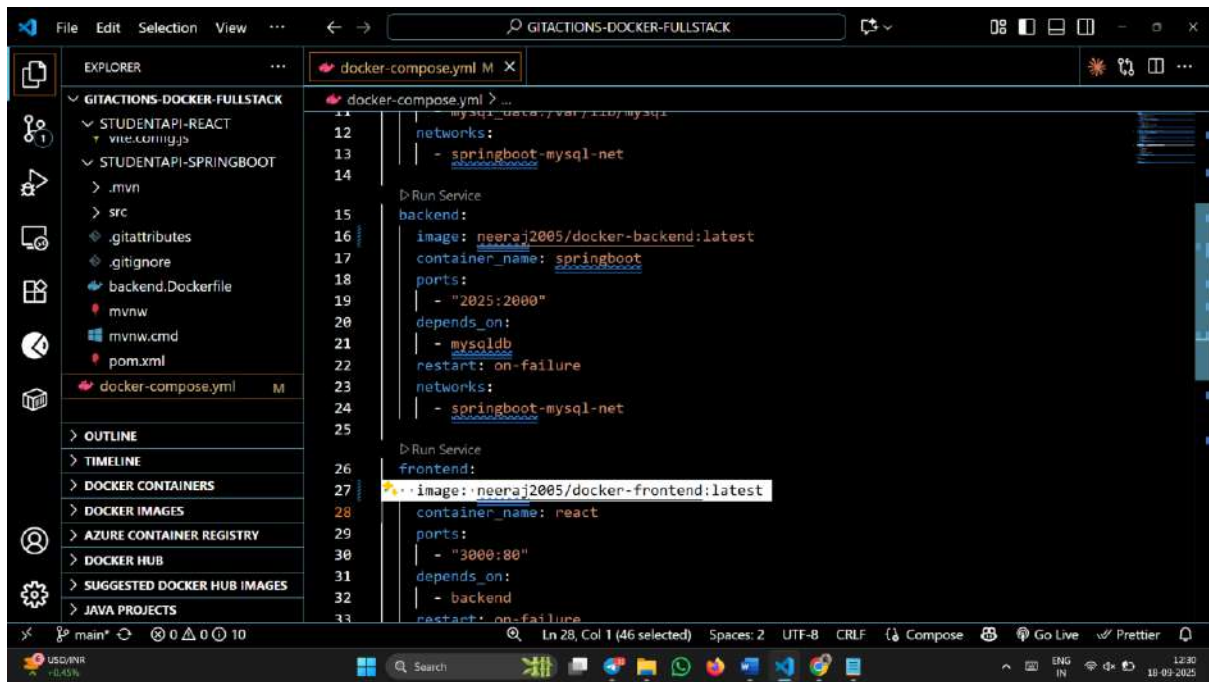
->Check images build in docker hub using git actions



->in docker-compose.yml make sure username is correct for frontend image name

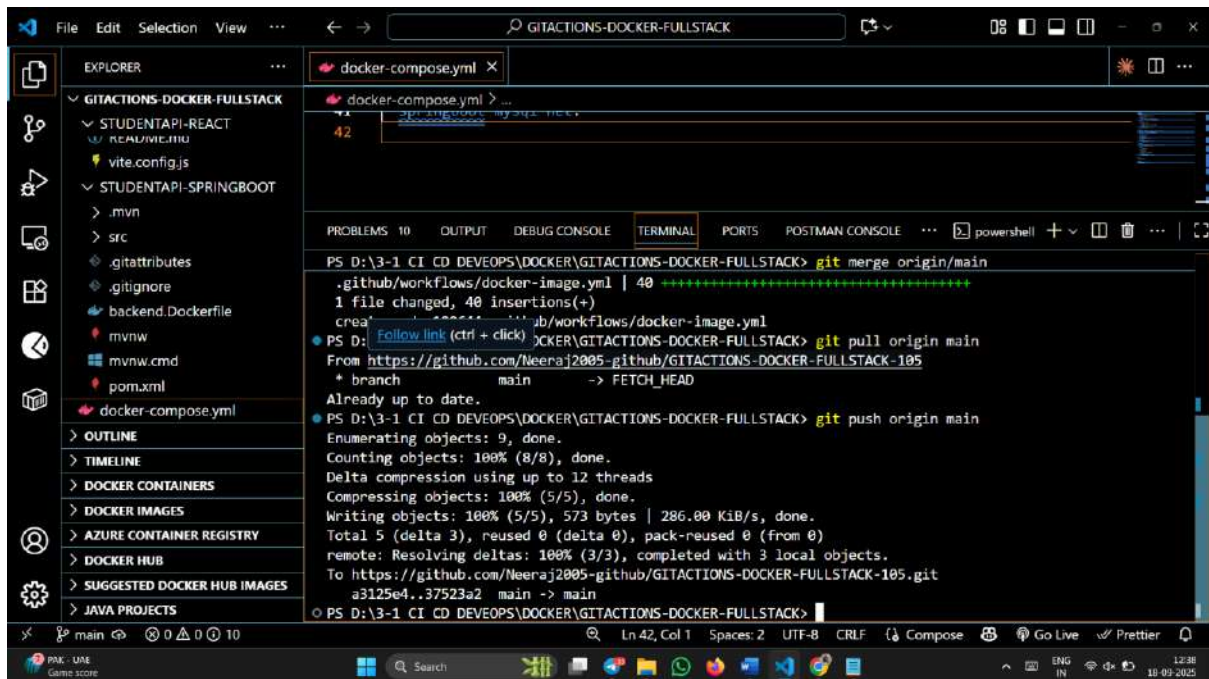


->in docker-compose.yml make sure username is correct for backend image name

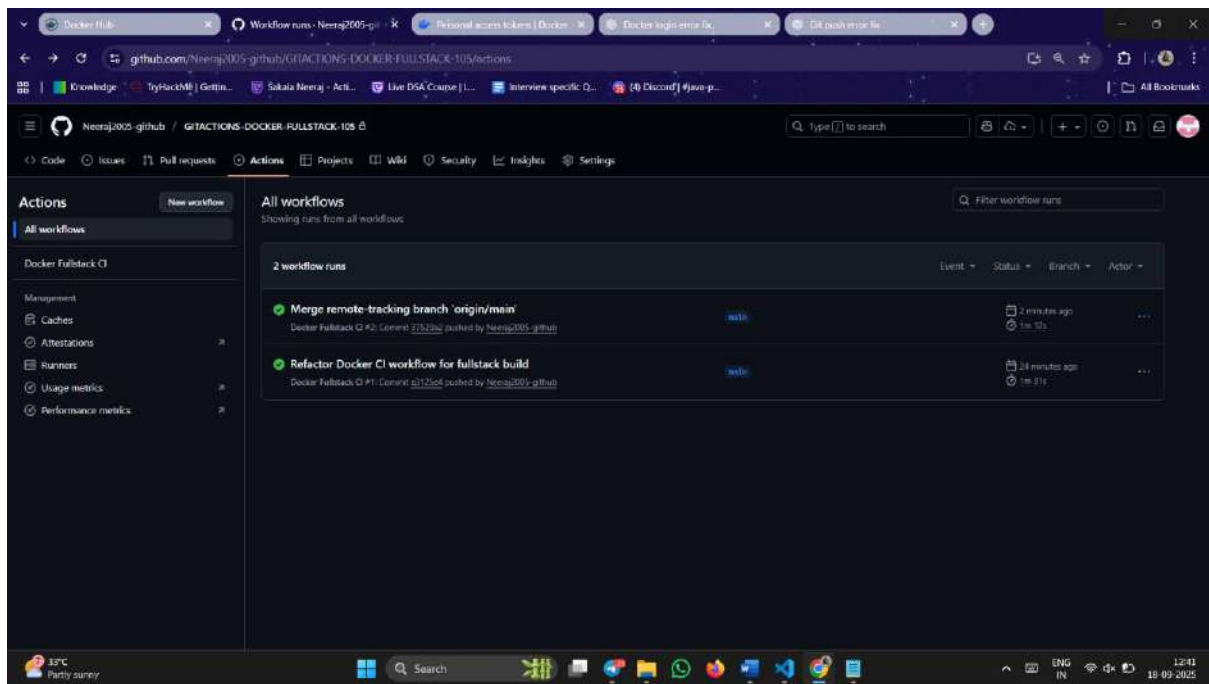


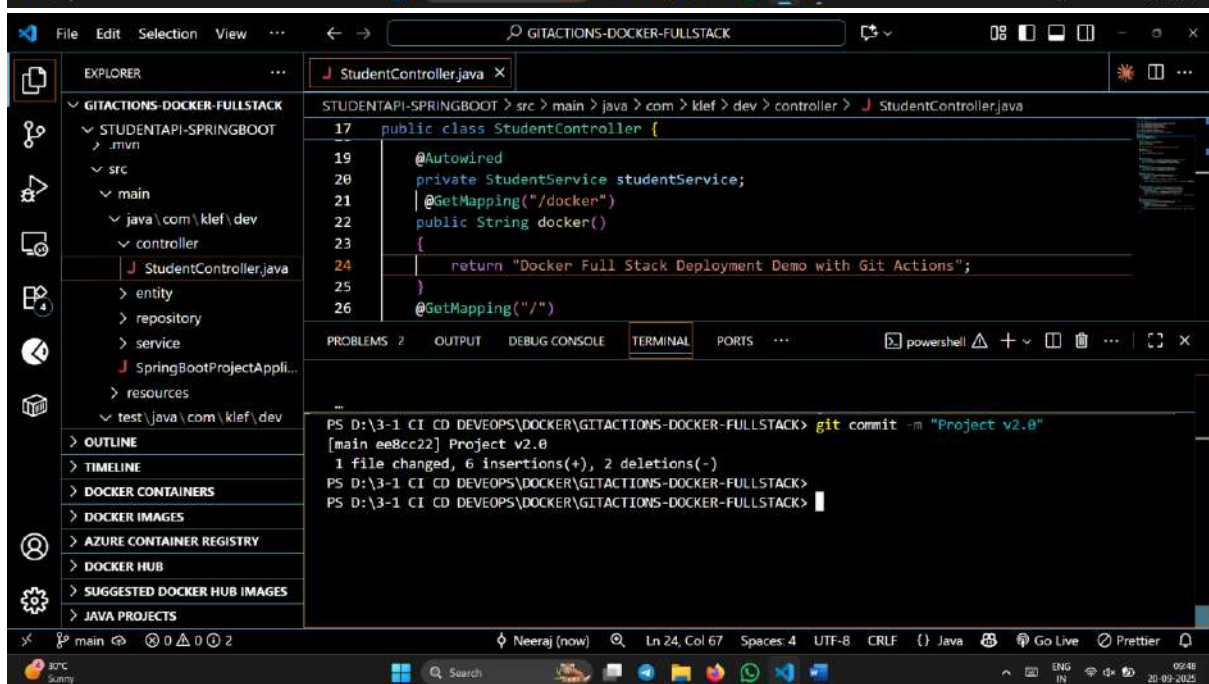
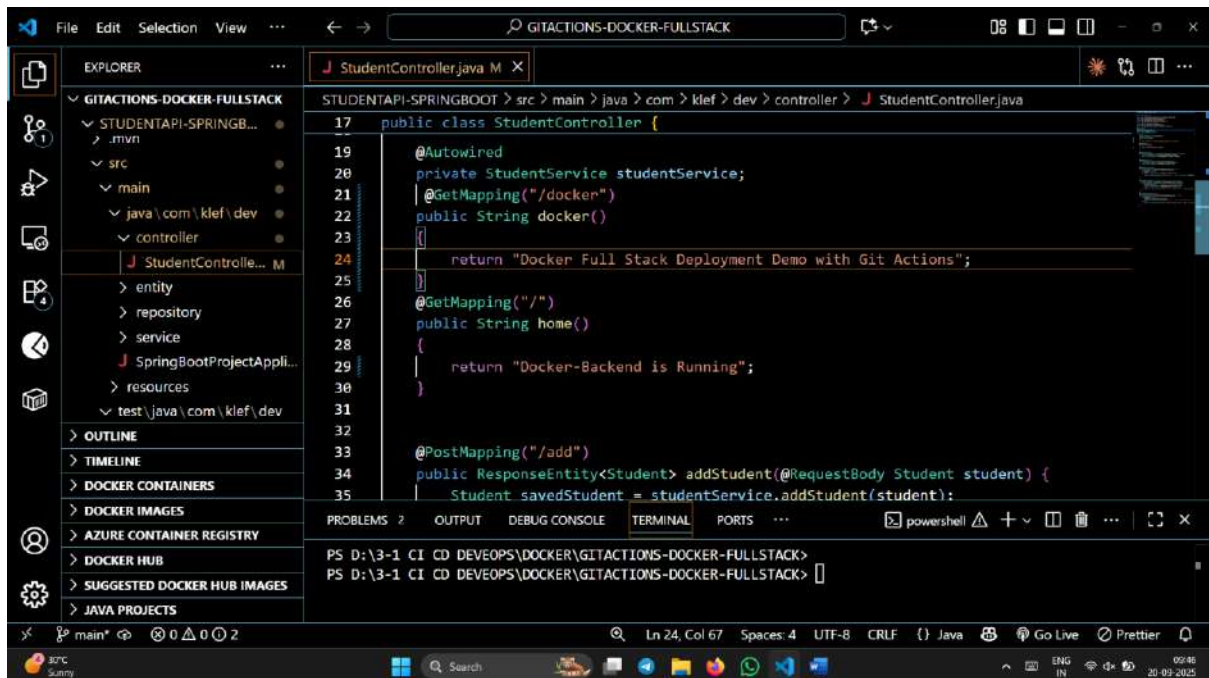
->As Configured image.yml in git repo we need to git pull first in local repo to push updated code as it create merge conflict .

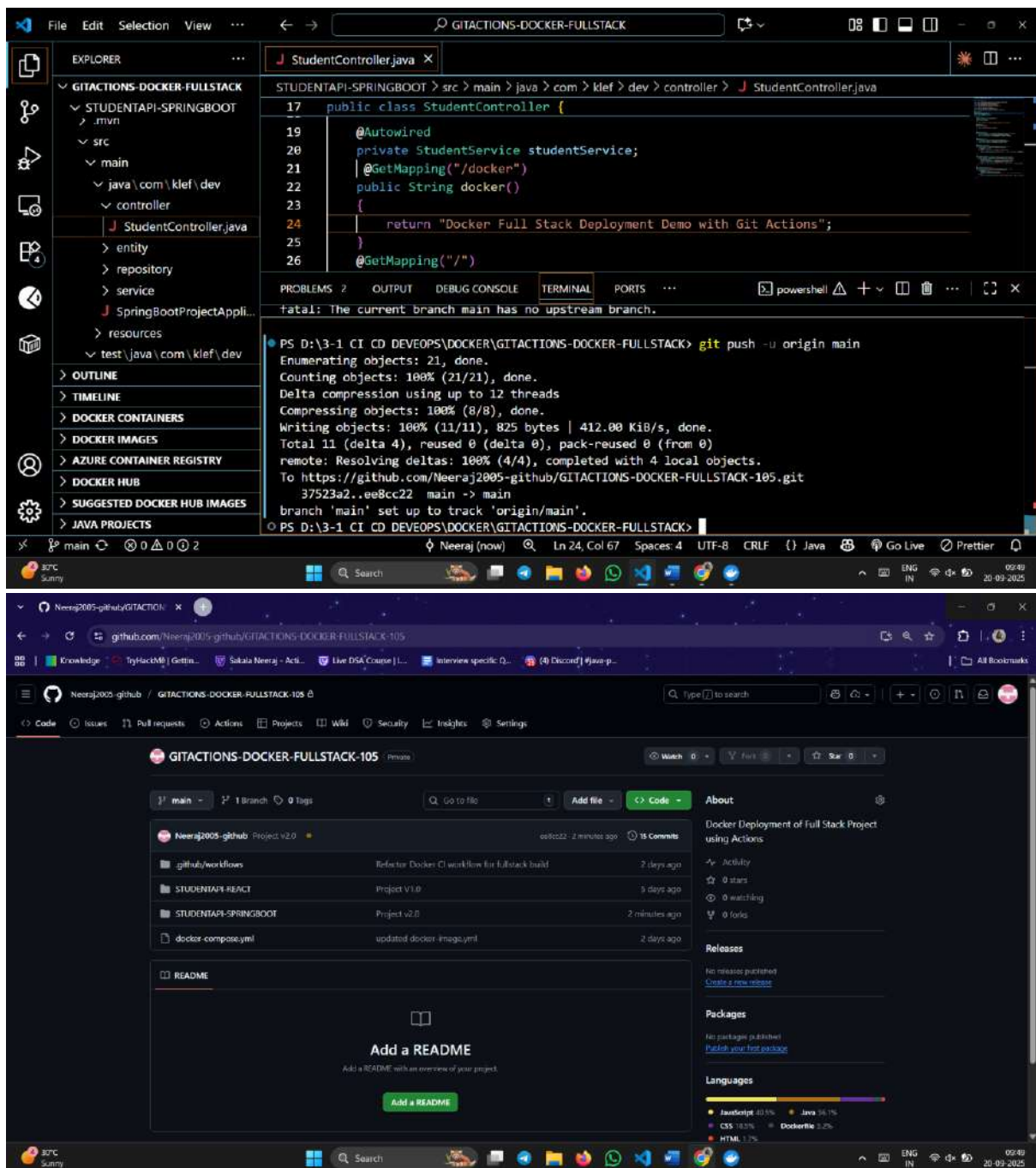
->And then push the updated code



->we can see the updated code started actions after push without any manual deployment







Workflow run: Neeq2005-github

github.com/Neeq2005-github/GITATIONS-DOCKER-FULLSTACK-105/actions

Code Issues Pull requests Actions Projects Wiki Security Insights Settings

Actions

All workflows

2 workflow runs

Workflow	Status	Branch	Actor
Project v2.0	Success	main	Neeq2005-github
Merge remote-tracking branch 'origin/main'	Success	main	Neeq2005-github
Refactor Docker CI workflow for fullstack build	Success	main	Neeq2005-github

File Edit Selection View ...

GitActions-Docker-Fullstack

EXPLORER

- GitActions-Docker-Fullstack
 - STUDENTAPI-SPRINGBOOT
 - .mvn
 - src
 - main
 - java\com\klef\dev
 - controller
 - StudentController.java

STUDENTAPI-SPRINGBOOT > src > main > java > com > klef > dev > controller > StudentController.java

```
17 public class StudentController {
19     @Autowired
```

PROBLEMS 2 OUTPUT DEBUG CONSOLE TERMINAL PORTS ...

```
PS D:\3-1 CI CD DEVOPS\DOCKER\GITATIONS-DOCKER-FULLSTACK> docker compose up -d
[+] Running 5/5
  frontend Pulled                                12.3s
  7d82f3ad3b43 Pull complete                      1.9s
  backend Pulled                                68.0s
  7a4391ba01b6 Pull complete                     58.6s
  e15ae6e6fc8a Pull complete                      2.3s
[+] Running 5/5
  Network gitactions-docker-fullstack_springboot-mysql-net Created          0.1s
  Volume "gitactions-docker-fullstack_mysql_data" Created                  0.0s
  Container mysql-db Started                                                1.1s
  Container springboot Started                                              1.3s
  Container react Started                                                  1.6s
```

File Edit Selection View ... GITATIONS-DOCKER-FULLSTACK 08 1000

EXPLORER ... StudentController.java X

GITATIONS-DOCKER-FULLSTACK

STUDENTAPI-SPRINGBOOT

.mvn

src

main

java\com\klef\dev

controller

StudentController.java

entity

repository

service

SpringBootProjectAppli...

resources

test\java\com\klef\dev

OUTLINE

TIMELINE

DOCKER CONTAINERS

DOCKER IMAGES

AZURE CONTAINER REGISTRY

DOCKER HUB

SUGGESTED DOCKER HUB IMAGES

JAVA PROJECTS

STUDENTAPI-SPRINGBOOT > src > main > java > com > klef > dev > controller > StudentController.java

```
17 public class StudentController {
19     @Autowired
```

PROBLEMS 2 OUTPUT DEBUG CONSOLE TERMINAL PORTS ... powershell + - - - -

PS D:\3-1 CI CD DEVEOPS\DOCKER\GITATIONS-DOCKER-FULLSTACK> docker compose up -d

[+] Running 5/5

- ✔ frontend Pulled 12.3s
- ✔ 7d82f3ad3b43 Pull complete 1.9s
- ✔ backend Pulled 68.8s
- ✔ 7a4391ba91b6 Pull complete 50.6s
- ✔ e15ae6e6fc8a Pull complete 2.3s

[+] Running 5/5

- ✔ Network gitactions-docker-fullstack_springboot-mysql-net Created 0.1s
- ✔ Volume "gitactions-docker-fullstack_mysql_data" Created 0.0s
- ✔ Container mysql-db Started 1.1s
- ✔ Container springboot Started 1.3s
- ✔ Container react Started 1.6s

PS D:\3-1 CI CD DEVEOPS\DOCKER\GITATIONS-DOCKER-FULLSTACK> docker-compose down -v

[+] Running 5/5

- ✔ Container react Removed 0.5s
- ✔ Container springboot Removed 0.5s
- ✔ Container mysql-db Removed 1.7s
- ✔ Network gitactions-docker-fullstack_springboot-mysql-net Removed 0.3s
- ✔ Volume gitactions-docker-fullstack_mysql_data Removed 0.0s

PS D:\3-1 CI CD DEVEOPS\DOCKER\GITATIONS-DOCKER-FULLSTACK>

JSK (4 days ago) Ln 26, Col 21 Spaces: 4 UTF-8 CRLF {} Java Go Live Prettier

37°C Sunny

File Edit Selection View ... GITATIONS-DOCKER-FULLSTACK 08 1000

EXPLORER ... StudentController.java X

GITATIONS-DOCKER-FULLSTACK

STUDENTAPI-SPRINGBOOT

.mvn

src

main

java\com\klef\dev

controller

StudentController.java

entity

repository

service

SpringBootProjectAppli...

resources

test\java\com\klef\dev

OUTLINE

TIMELINE

DOCKER CONTAINERS

DOCKER IMAGES

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JAVA PROJECTS

STUDENTAPI-SPRINGBOOT > src > main > java > com > klef > dev > controller > StudentController.java

```
17 public class StudentController {
19     @Autowired
```

PROBLEMS 2 OUTPUT DEBUG CONSOLE TERMINAL PORTS ... powershell + - - - -

PS D:\3-1 CI CD DEVEOPS\DOCKER\GITATIONS-DOCKER-FULLSTACK> docker compose up -d

[+] Running 5/5

- ✔ Network gitactions-docker-fullstack_springboot-mysql-net Created 0.1s
- ✔ Volume "gitactions-docker-fullstack_mysql_data" Created 0.0s
- ✔ Container mysql-db Started 1.1s
- ✔ Container springboot Started 1.3s
- ✔ Container react Started 1.6s

PS D:\3-1 CI CD DEVEOPS\DOCKER\GITATIONS-DOCKER-FULLSTACK> docker-compose down -v

[+] Running 5/5

- ✔ Container react Removed 0.5s
- ✔ Container springboot Removed 0.5s
- ✔ Container mysql-db Removed 1.7s
- ✔ Network gitactions-docker-fullstack_springboot-mysql-net Removed 0.3s
- ✔ Volume gitactions-docker-fullstack_mysql_data Removed 0.0s

PS D:\3-1 CI CD DEVEOPS\DOCKER\GITATIONS-DOCKER-FULLSTACK> docker-compose up -d

[+] Running 5/5

- ✔ Network gitactions-docker-fullstack_springboot-mysql-net Created 0.1s
- ✔ Volume "gitactions-docker-fullstack_mysql_data" Created 0.0s
- ✔ Container mysql-db Started 0.9s
- ✔ Container springboot Started 1.2s
- ✔ Container react Started 1.5s

PS D:\3-1 CI CD DEVEOPS\DOCKER\GITATIONS-DOCKER-FULLSTACK>

JSK (4 days ago) Ln 26, Col 21 Spaces: 4 UTF-8 CRLF {} Java Go Live Prettier

37°C Sunny

File Edit Selection View ... GITATIONS-DOCKER-FULLSTACK

EXPLORER

- GITATIONS-DOCKER-FULLSTACK
 - STUDENTAPI-SPRINGBOOT
 - .mvn
 - src
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 - java\com\klef\dev
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 - entity
 - repository
 - service
 - SpringBootProjectAppli...
 - resources
 - test\java\com\klef\dev
- OUTLINE
- TIMELINE
- DOCKER CONTAINERS
- DOCKER IMAGES
- AZURE CONTAINER REGISTRY
- DOCKER HUB
- SUGGESTED DOCKER HUB IMAGES
- JAVA PROJECTS

STUDENTAPI-SPRINGBOOT > src > main > java > com > klef > dev > controller > StudentController.java

```
17 public class StudentController {
19     @Autowired
```

PROBLEMS 2 OUTPUT DEBUG CONSOLE TERMINAL PORTS ...

PS D:\3-1 CI CD DEVOPS\DOCKER\GITATIONS-DOCKER-FULLSTACK> docker logs -f mysql-db

```
2025-09-20 04:31:38+00:00 [Note] [Entrypoint]: Entrypoint script for MySQL Server 8.4.6-1.el9 started.
2025-09-20 04:31:38+00:00 [Note] [Entrypoint]: Switching to dedicated user 'mysql'
2025-09-20 04:31:38+00:00 [Note] [Entrypoint]: Entrypoint script for MySQL Server 8.4.6-1.el9 started.
2025-09-20 04:31:38+00:00 [Note] [Entrypoint]: Initializing database files
2025-09-20T04:31:39.015188Z [System] [MY-015017] [Server] MySQL Server Initialization - start.
2025-09-20T04:31:39.025760Z [System] [MY-013169] [Server] /usr/sbin/mysqld (mysqld 8.4.6) initializing o
f server in progress as process 80
2025-09-20T04:31:39.050930Z [System] [MY-013576] [InnoDB] InnoDB initialization has started.
2025-09-20T04:31:39.692789Z [System] [MY-013577] [InnoDB] InnoDB initialization has ended.
2025-09-20T04:31:41.979612Z [Warning] [MY-010453] [Server] root@localhost is created with an empty passw
ord ! Please consider switching off the --initialize-insecure option.
2025-09-20T04:31:45.863468Z [System] [MY-015018] [Server] MySQL Server Initialization - end.
2025-09-20 04:31:45+00:00 [Note] [Entrypoint]: Database files initialized
2025-09-20 04:31:45+00:00 [Note] [Entrypoint]: Starting temporary server
2025-09-20T04:31:45.942392Z [System] [MY-015015] [Server] MySQL Server - start.
2025-09-20T04:31:46.230347Z [System] [MY-010116] [Server] /usr/sbin/mysqld (mysqld 8.4.6) starting as pr
ocess 123
2025-09-20T04:31:46.294878Z [System] [MY-013576] [InnoDB] InnoDB initialization has started.
2025-09-20T04:31:46.805933Z [System] [MY-013577] [InnoDB] InnoDB initialization has ended.
2025-09-20T04:31:47.268770Z [Warning] [MY-010068] [Server] CA certificate ca.pem is self signed.
```

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File Edit Selection View ... GITATIONS-DOCKER-FULLSTACK

EXPLORER

- GITATIONS-DOCKER-FULLSTACK
 - STUDENTAPI-SPRINGBOOT
 - .mvn
 - src
 - main
 - java\com\klef\dev
 - controller
 - StudentController.java
 - entity
 - repository
 - service
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 - resources
 - test\java\com\klef\dev
 - OUTLINE
 - TIMELINE
 - DOCKER CONTAINERS
 - DOCKER IMAGES
 - AZURE CONTAINER REGISTRY
 - DOCKER HUB
 - SUGGESTED DOCKER HUB IMAGES
 - JAVA PROJECTS

STUDENTAPI-SPRINGBOOT > src > main > java > com > klef > dev > controller > StudentController.java

```
17 public class StudentController {
19     @Autowired
```

PROBLEMS 2 OUTPUT DEBUG CONSOLE TERMINAL PORTS ...

PS D:\3-1 CI CD DEVOPS\DOCKER\GITATIONS-DOCKER-FULLSTACK> docker logs -f mysql-db

```
2025-09-20 04:31:54+00:00 [Note] [Entrypoint]: MySQL init process done. Ready for start up.
2025-09-20T04:31:54.321313Z [System] [MY-015015] [Server] MySQL Server - start.
2025-09-20T04:31:54.660874Z [System] [MY-010116] [Server] /usr/sbin/mysqld (mysqld 8.4.6) starting as
process 1
2025-09-20T04:31:54.694043Z [System] [MY-013576] [InnoDB] InnoDB initialization has started.
2025-09-20T04:31:55.407936Z [System] [MY-013577] [InnoDB] InnoDB initialization has ended.
2025-09-20T04:31:55.951605Z [Warning] [MY-010068] [Server] CA certificate ca.pem is self signed.
2025-09-20T04:31:55.951884Z [System] [MY-013602] [Server] Channel mysql_main configured to support TLS
. Encrypted connections are now supported for this channel.
2025-09-20T04:31:55.961437Z [Warning] [MY-011810] [Server] Insecure configuration for --pid-file: Loca
tion '/var/run/mysqld' in the path is accessible to all OS users. Consider choosing a different director
y.
2025-09-20T04:31:56.027773Z [System] [MY-011323] [Server] X Plugin ready for connections. Bind-address
: '::' port: 33060, socket: /var/run/mysqld/mysqld.sock
2025-09-20T04:31:56.028503Z [System] [MY-010931] [Server] /usr/sbin/mysqld: ready for connections. Ver
sion: '8.4.6' socket: /var/run/mysqld/mysqld.sock port: 3306 MySQL Community Server - GPL.
Airplane mode on
```

JSK (4 days ago) Ln 26, Col 21 Spaces: 4 UTF-8 CRLF {} Java Go Live Prettier

File Edit Selection View ...

← → GITATIONS-DOCKER-FULLSTACK

08 10 11

✖

EXPLORER

GITATIONS-DOCKER-FULLSTACK

STUDENTAPI-SPRINGBOOT

.mvn

src

main

java\com\klef\dev

controller

StudentController.java

entity

repository

service

SpringBootProjectAppli...

resources

test\java\com\klef\dev

OUTLINE

TIMELINE

DOCKER CONTAINERS

DOCKER IMAGES

AZURE CONTAINER REGISTRY

DOCKER HUB

SUGGESTED DOCKER HUB IMAGES

JAVA PROJECTS

StudentController.java

STUDENTAPI-SPRINGBOOT > src > main > java > com > klef > dev > controller > StudentController.java

17 public class StudentController {

19 @Autowired

PROBLEMS 2 OUTPUT DEBUG CONSOLE TERMINAL PORTS ...

PS D:\3-1 CI CD DEVOPS\DOCKER\GITATIONS-DOCKER-FULLSTACK> docker logs -f springboot

alter table student_table

add constraint UKd13qo2dhpv1mjsf5qth2em58v unique (student_contact)

Hibernate:

alter table student_table

drop index UKoihbv3dej1aoqi896724d7aq4

Hibernate:

alter table student_table

add constraint UKoihbv3dej1aoqi896724d7aq4 unique (student_email)

2025-09-20T04:31:57.907Z INFO 1 --- [SpringBootProject] [main] j.LocalContainerEntityManager

FactoryBean : Initialized JPA EntityManagerFactory for persistence unit 'default'

2025-09-20T04:31:58.468Z WARN 1 --- [SpringBootProject] [main] JpaBaseConfiguration\$JpaWebCo

nfiguration : spring.jpa.open-in-view is enabled by default. Therefore, database queries may be performe

d during view rendering. Explicitly configure spring.jpa.open-in-view to disable this warning

2025-09-20T04:31:59.254Z INFO 1 --- [SpringBootProject] [main] o.s.b.w.embedded.tomcat.Tomca

tkWebServer : Tomcat started on port 2800 (http) with context path '/'

2025-09-20T04:31:59.284Z INFO 1 --- [SpringBootProject] [main] c.klef.dev.SpringBootProjectA

pplication : Started SpringBootProjectApplication in 9.456 seconds (process running for 10.413)

Backend is Running ...

JSK (4 days ago)

Ln 26, Col 21

Spaces: 4

UTF-8

CRLF

{ } Java

Go Live

Prettier

1074

20/09/2025

Vite + React

← →

http://localhost:3000

☆

☰

Add Student

Student updated successfully.

Get Student By ID

33528

Fetch

Student Found:

```
{
  "id": 33528,
  "name": "Neeraj",
  "gender": "MALE",
  "department": "CSE",
  "program": "B.Tech",
  "year": "3",
  "semester": "ODD",
  "email": "334@gmail.com",
  "password": "123",
  "contact": "7670892259"
}
```

All Students

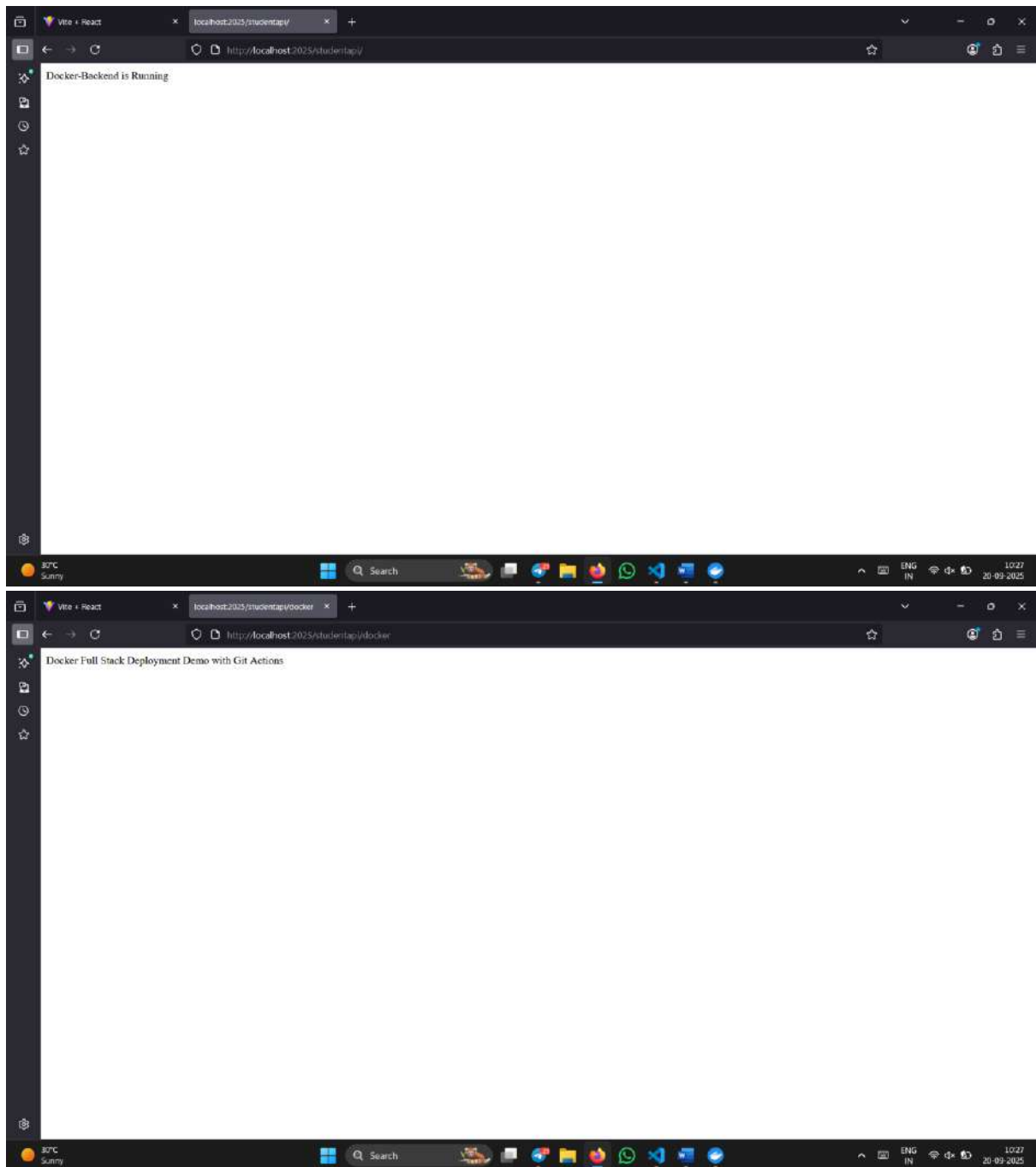
id	name	gender	department	program	year	semester	email	password	contact	Actions
33528	Neeraj	MALE	CSE	B.Tech	3	ODD	334@gmail.com	123	7670892259	<div>EditDelete</div>

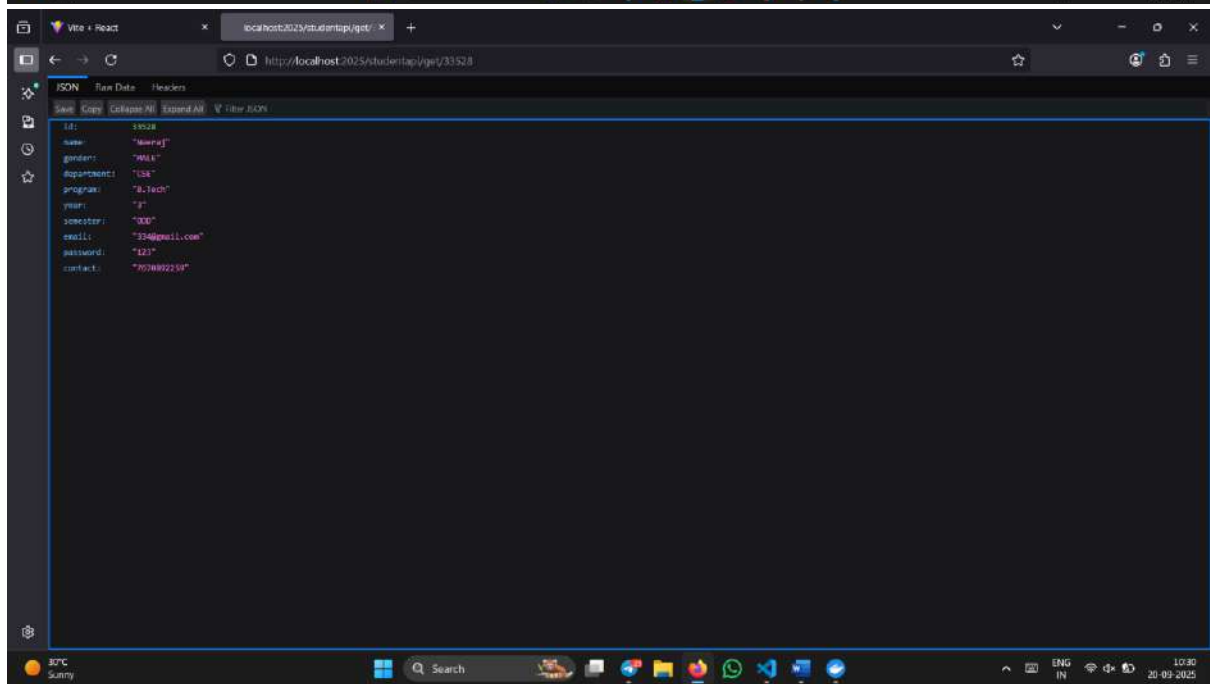
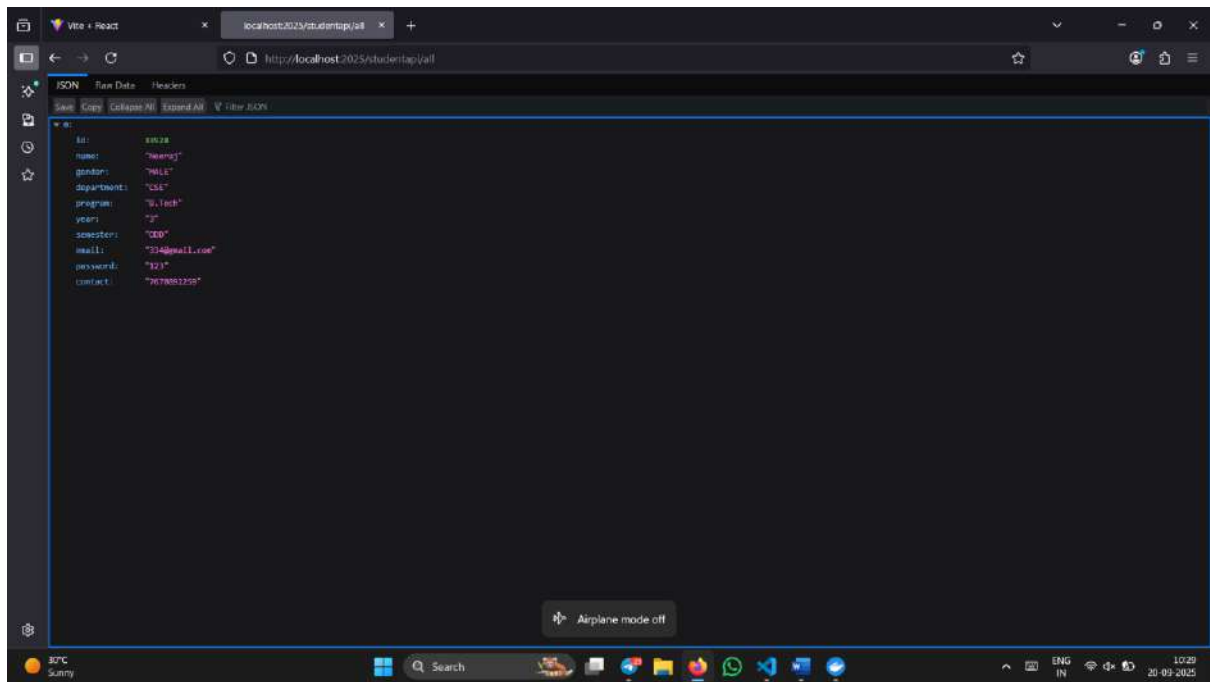
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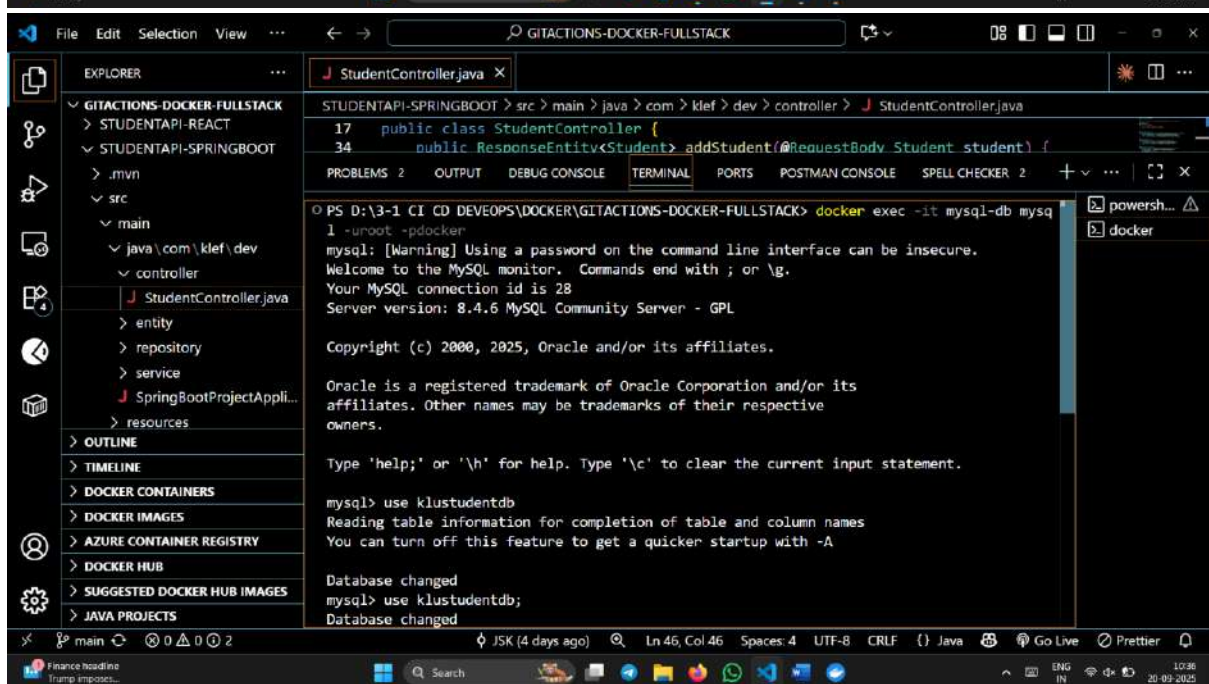
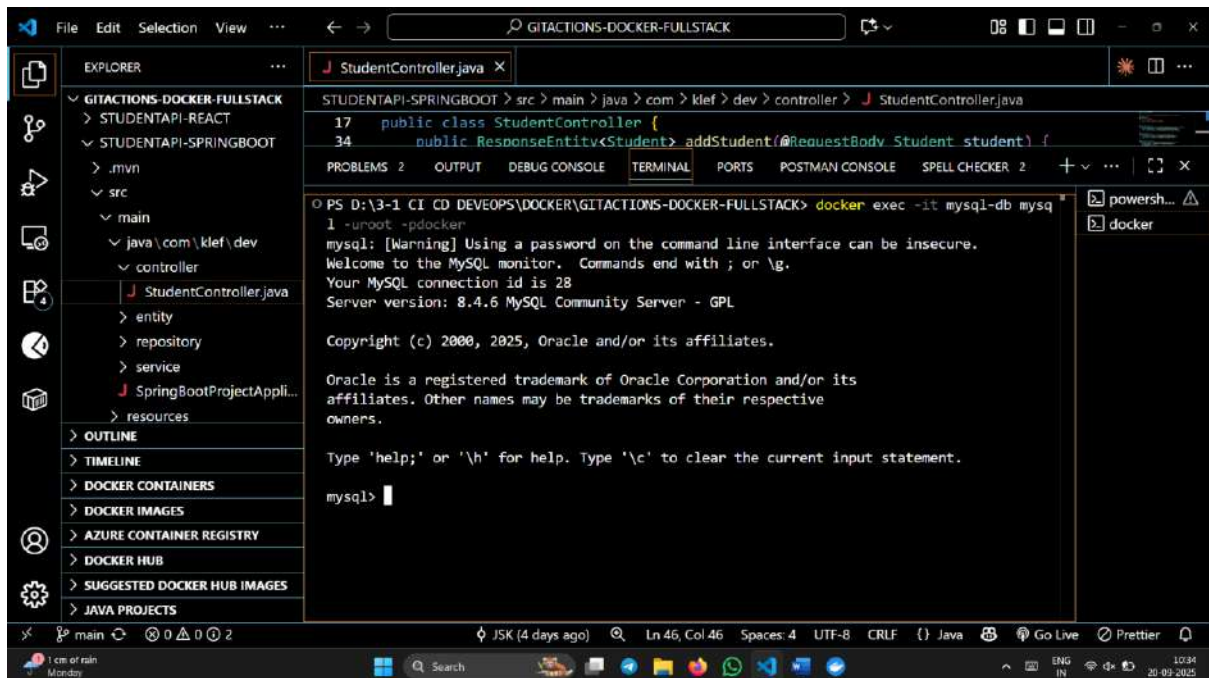
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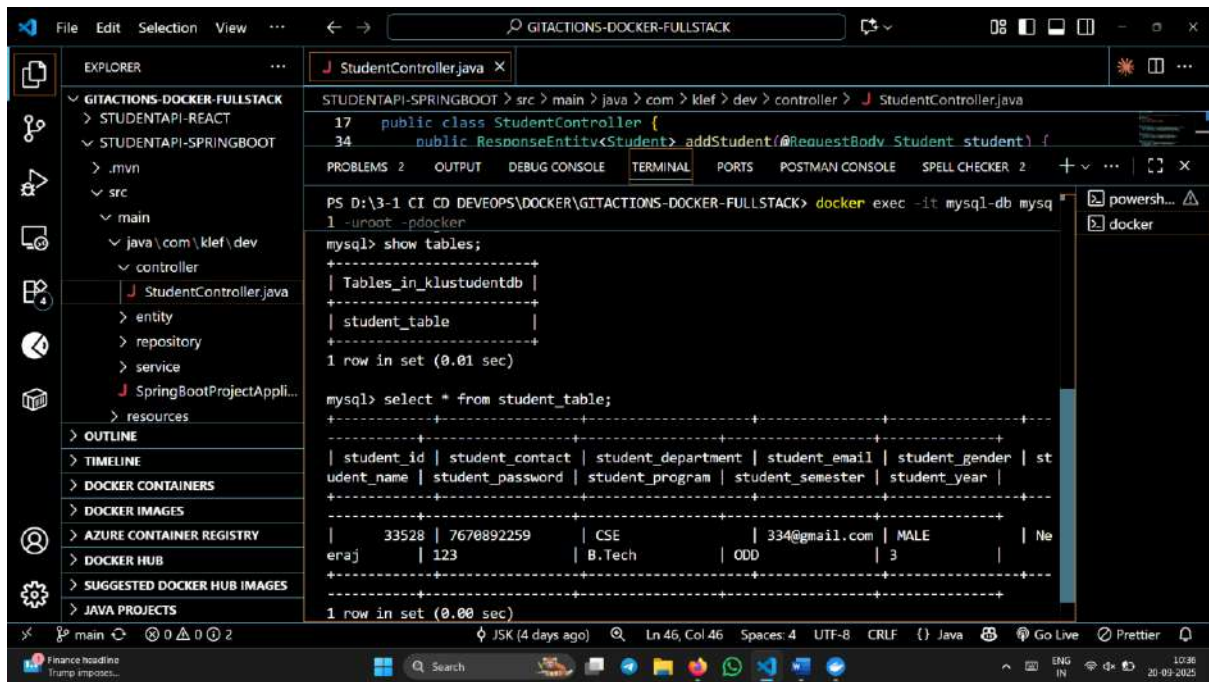
10725

20/09/2025









docker-compose up -d

docker-compose down -v

docker logs -f containername