LAB 10 GIT ACTIONS

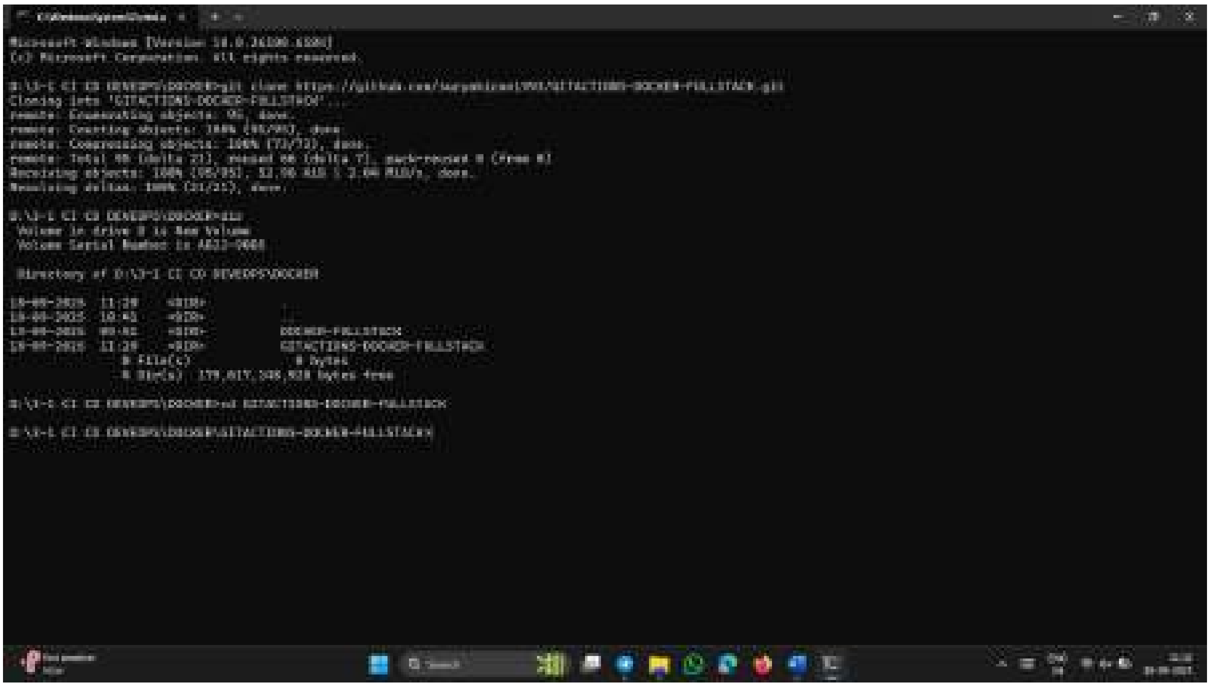
->Deployment of docker full stack project using gi t actions.

->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

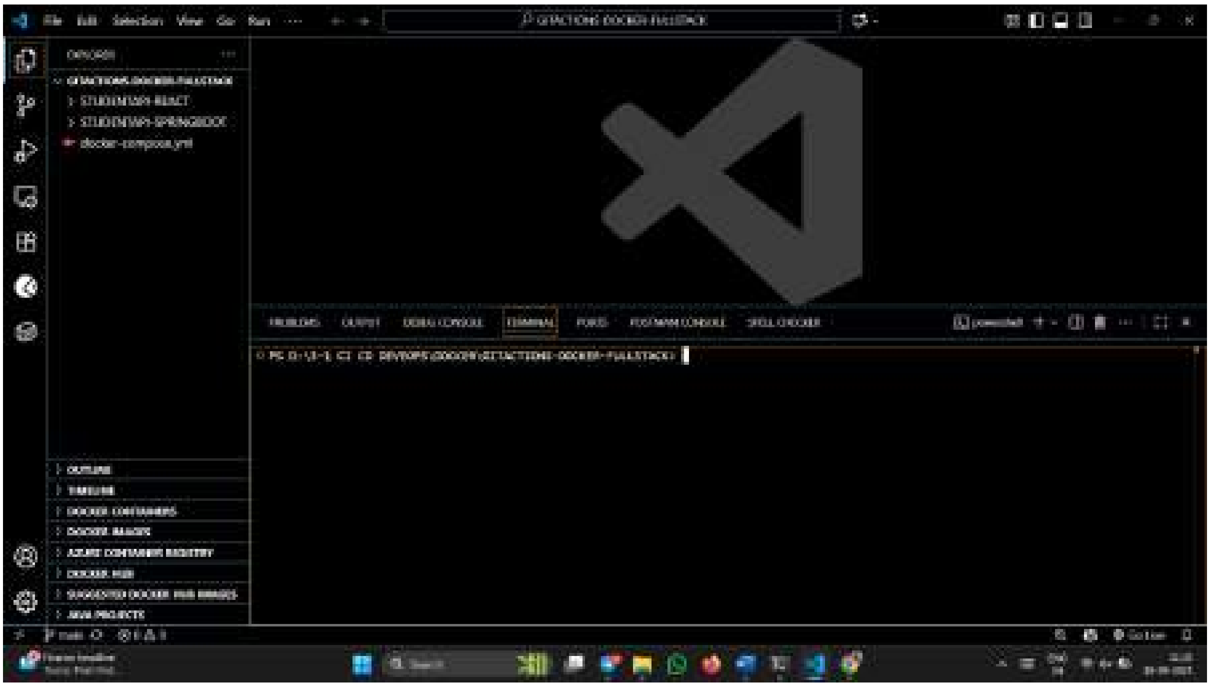
->dir (to check directories)

->cd GITACTIONS-DOCKER-FULLSTACK (changing dir)



```
Microsoft Windows [Version 10.0.26100.[illegible]]
(c) Microsoft Corporation. All rights reserved.

D:\3-1 CI CD DEVOPS\DOCKER>git clone https://github.com/[illegible]/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 88 (delta 7), pack-reused 0 (from 0)
Receiving objects: 100% (95/95), 32.90 KiB | 2.06 MiB/s, done.
Resolving deltas: 100% (21/21), done.

D:\3-1 CI CD DEVOPS\DOCKER>dir
 Volume in drive D is New Volume
 Volume Serial Number is A622-9068

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

18-09-2025  11:28    <DIR>          .
18-09-2025  10:41    <DIR>          ..
13-09-2025  09:41    <DIR>          DOCKER-FULLSTACK
18-09-2025  11:28    <DIR>          GITACTIONS-DOCKER-FULLSTACK
               0 File(s)              0 bytes
               4 Dir(s)  179,817,308,928 bytes free

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

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

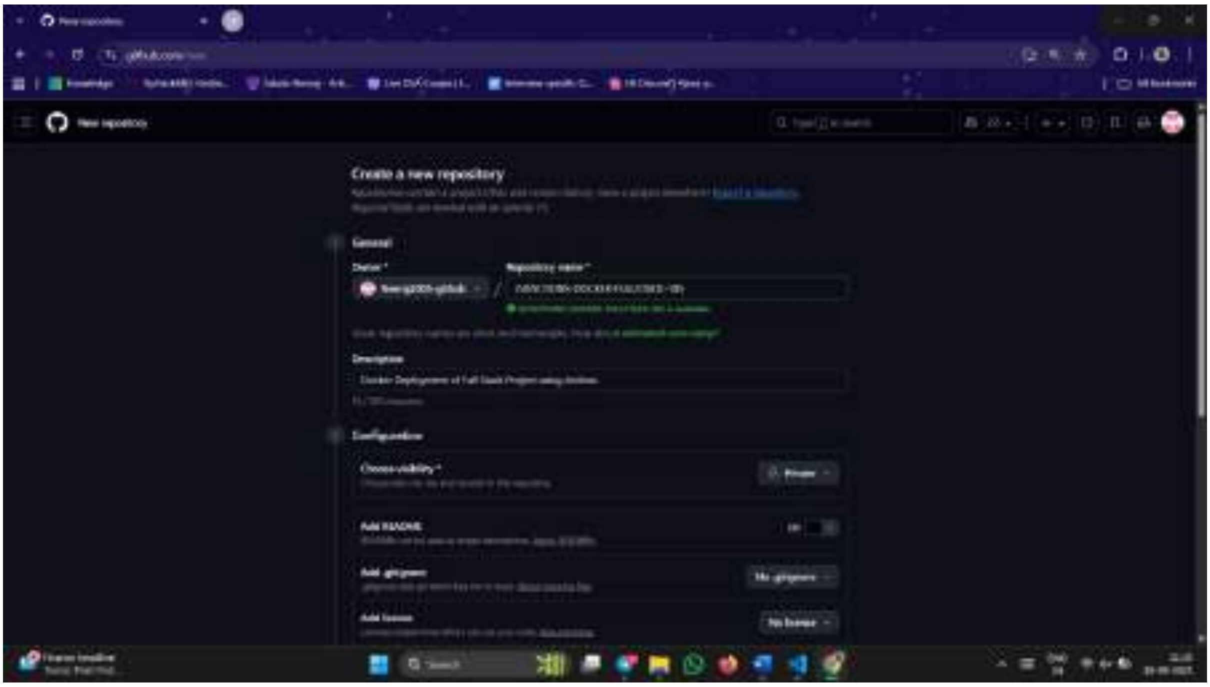
->project opened in vscode containing folders frontend with frontend.Dockerfile, backend with backend.Dockerfile and docker-compose.yml file



```
PS D:\3-1 CI CD DEVOPS\DOCKER\GITACTIONS-DOCKER-FULLSTACK>
```

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

->visibility public



Owner * / Repository name * GITACTIONS-DOCKER-FULLSTACK-105

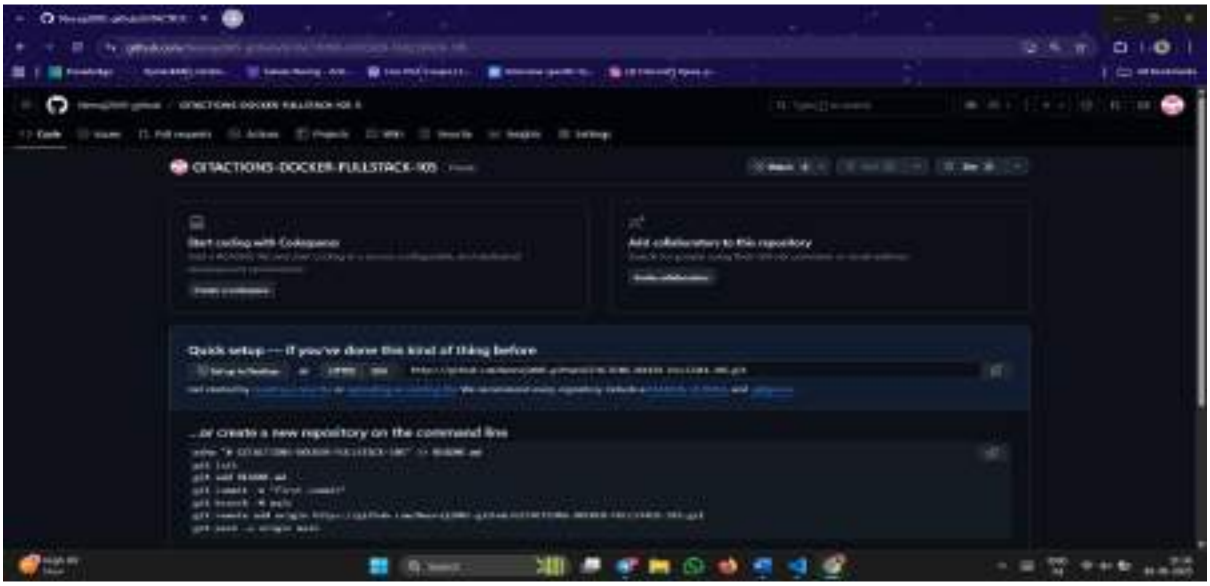
Description

Choose visibility * Private

Add README Off

Add .gitignore No .gitignore

Add license No license



GITACTIONS-DOCKER-FULLSTACK-105

Start coding with Codespaces

Add collaborators to this repository

Quick setup — if you've done this kind of thing before

...or create a new repository on the command line

```
echo "# GITACTIONS-DOCKER-FULLSTACK-105" >> README.md
git init
git add README.md
git commit -m "first commit"
git branch -M main
git remote add origin https://github.com/Neeraj2005-github/GITACTIONS-DOCKER-FULLSTACK-105.git
git push -u origin main
```

->Add the project from local to my git repository

->git remote remove origin (remove old origin)

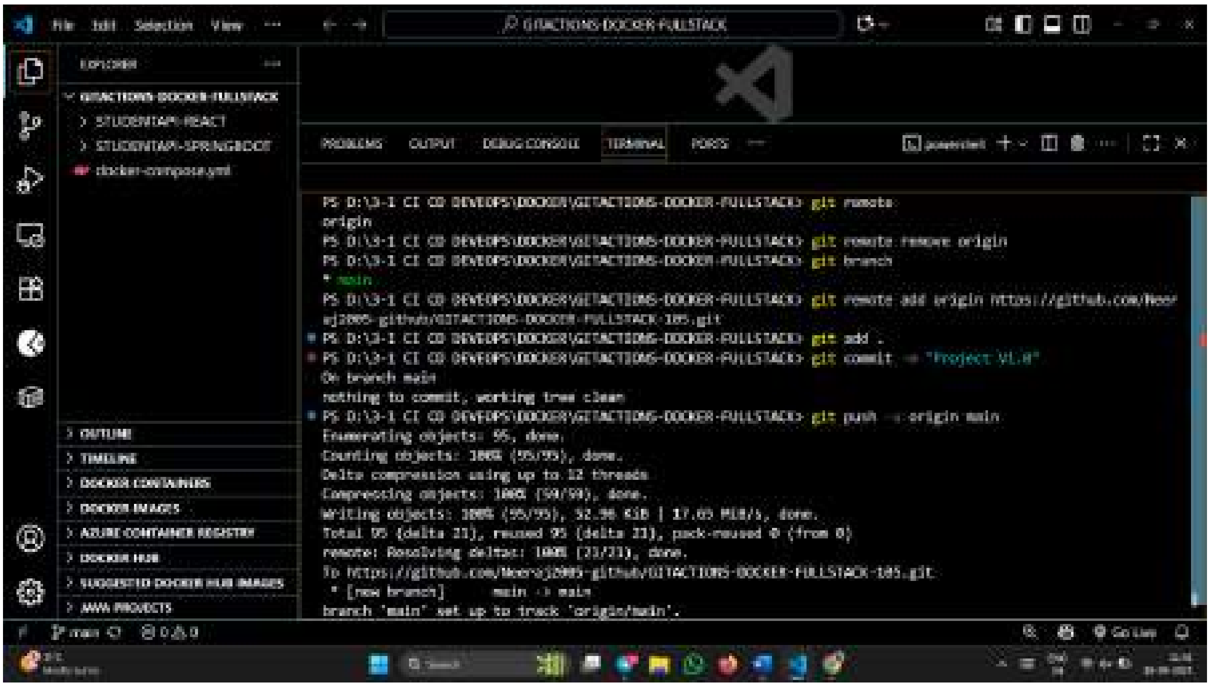
-> git add . (add files to staging area)

->git commit -m “” (commit message)

->git remote add origin “”(add to origin) and make sure to be in main branch (git branch)

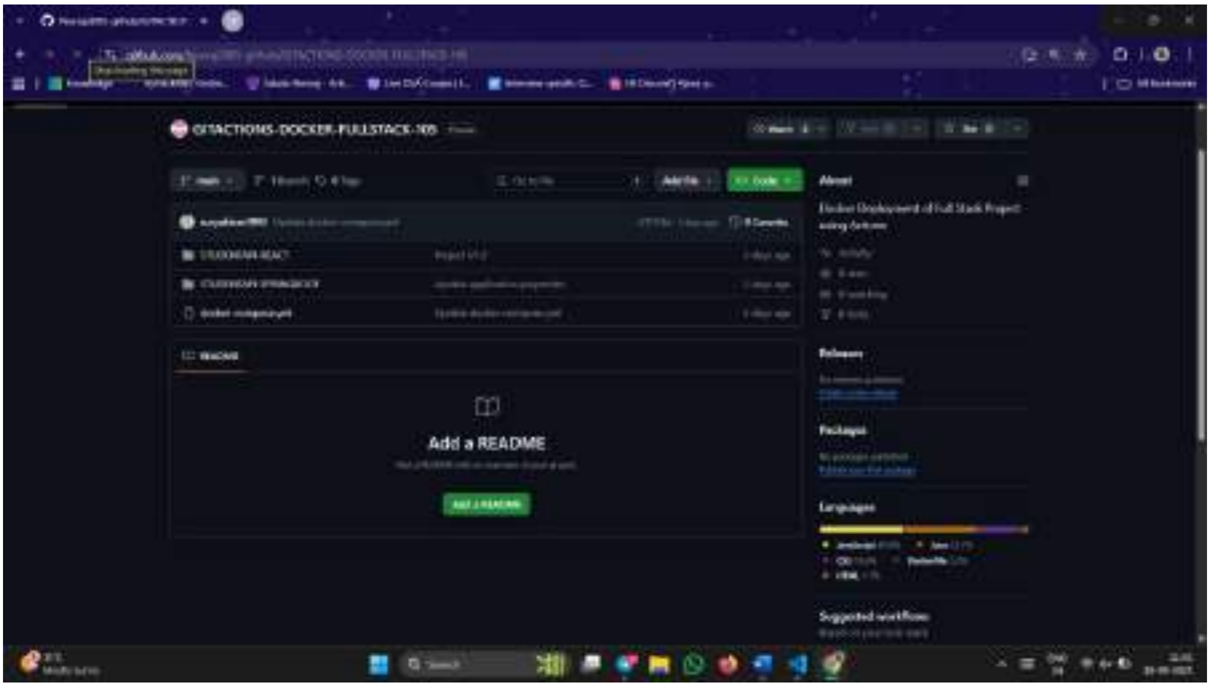
->git branch -m main

->git push -u origin main (git push)

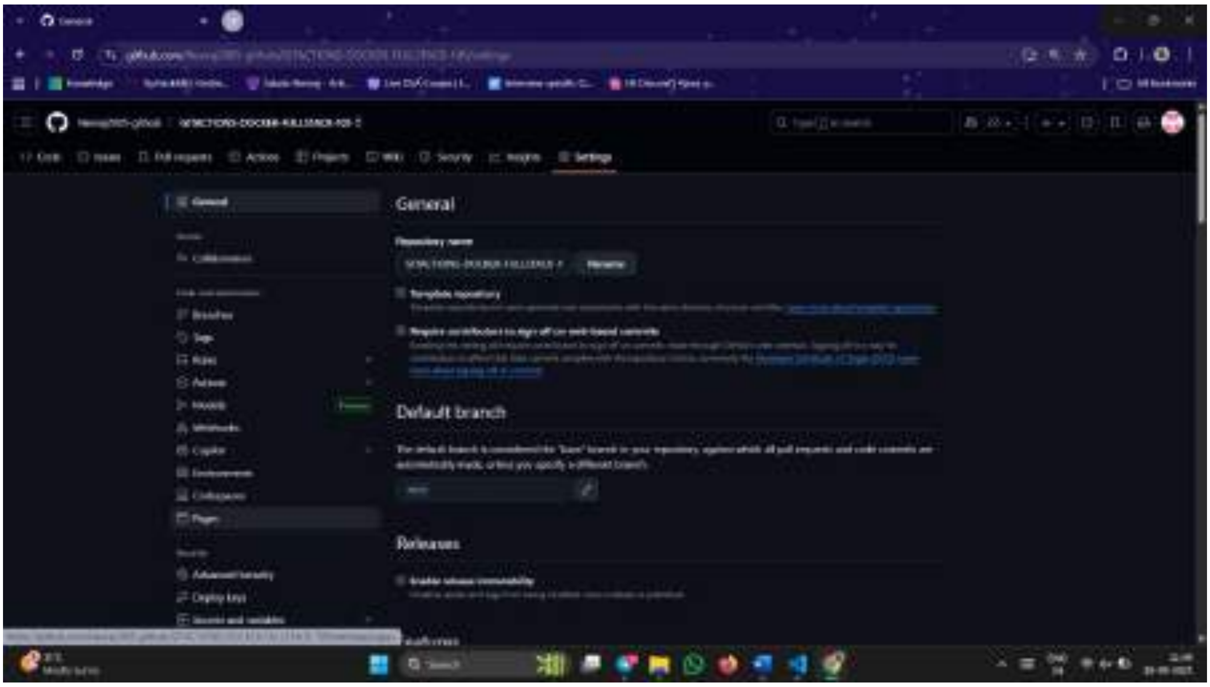


```
PS D:\3-1 CI CD DEVEOPS\DOCKER\GITACTIONS-DOCKER-FULLSTACK> git remote
origin
PS D:\3-1 CI CD DEVEOPS\DOCKER\GITACTIONS-DOCKER-FULLSTACK> git remote remove origin
PS D:\3-1 CI CD DEVEOPS\DOCKER\GITACTIONS-DOCKER-FULLSTACK> git branch
* main
PS D:\3-1 CI CD DEVEOPS\DOCKER\GITACTIONS-DOCKER-FULLSTACK> git remote add origin https://github.com/Neer
aj2005-github/GITACTIONS-DOCKER-FULLSTACK-105.git
PS D:\3-1 CI CD DEVEOPS\DOCKER\GITACTIONS-DOCKER-FULLSTACK> git add .
PS D:\3-1 CI CD DEVEOPS\DOCKER\GITACTIONS-DOCKER-FULLSTACK> git commit -m "Project V1.0"
On branch main
nothing to commit, working tree clean
PS D:\3-1 CI CD DEVEOPS\DOCKER\GITACTIONS-DOCKER-FULLSTACK> git push -u origin main
Enumerating objects: 95, done.
Counting objects: 100% (95/95), done.
Delta compression using up to 12 threads
Compressing objects: 100% (59/59), done.
Writing objects: 100% (95/95), 52.96 KiB | 17.65 MiB/s, done.
Total 95 (delta 21), reused 95 (delta 21), pack-reused 0 (from 0)
remote: Resolving deltas: 100% (21/21), done.
To https://github.com/Neeraj2005-github/GITACTIONS-DOCKER-FULLSTACK-105.git
 * [new branch]      main -> main
branch 'main' set up to track 'origin/main'.
```

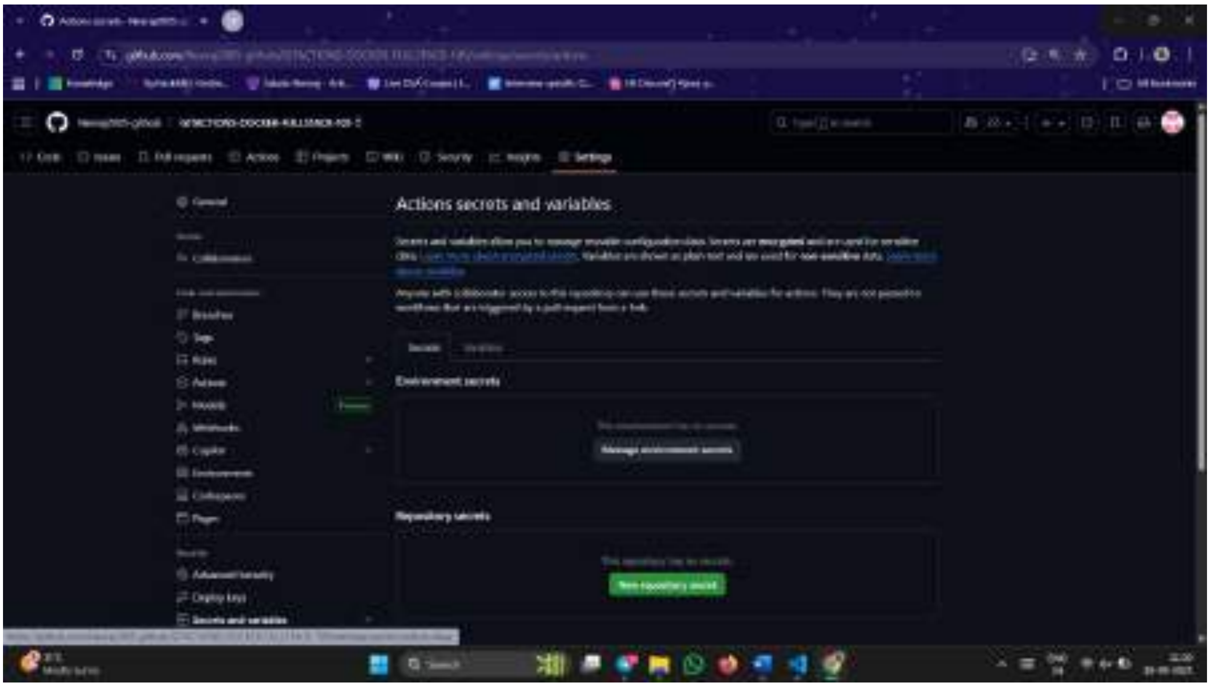
->github repo with project



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



->New repository secret add

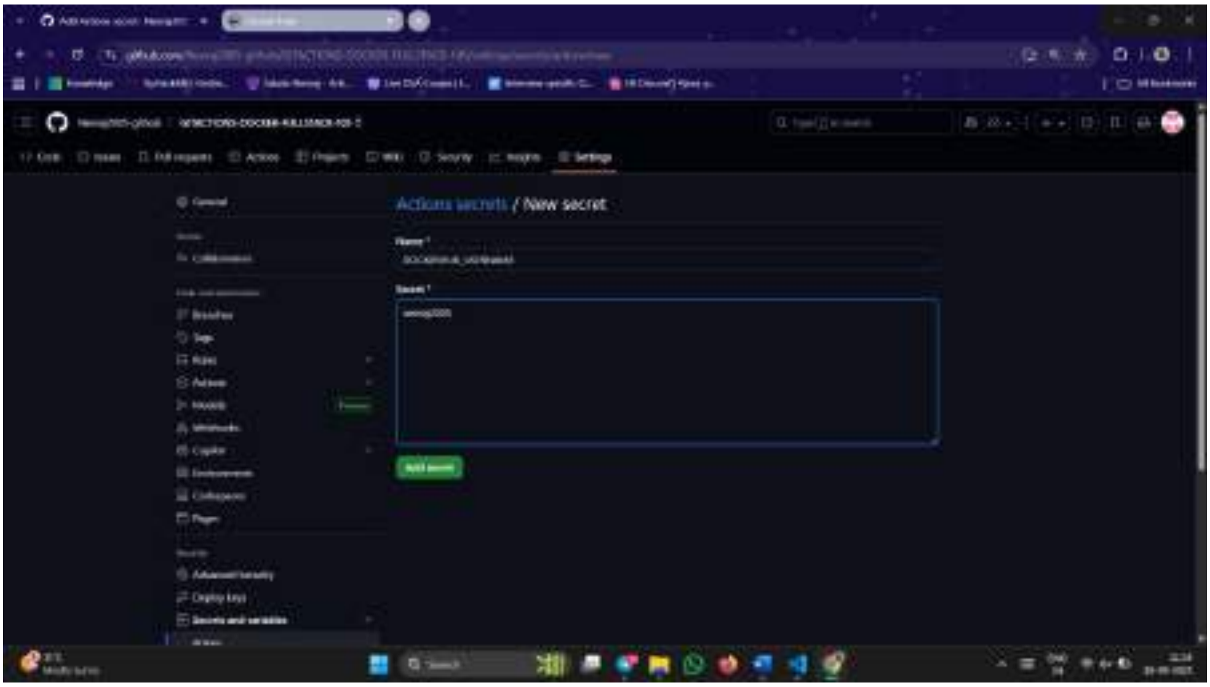


Actions secrets and variables

Environment secrets

Repository secrets

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



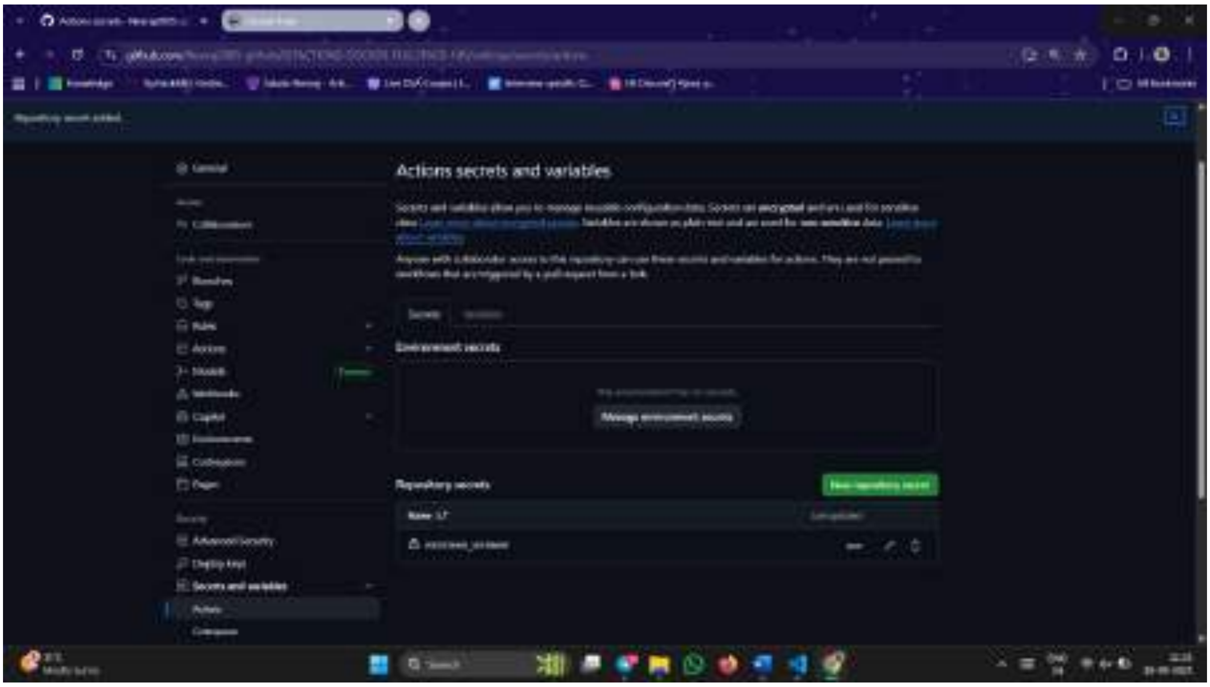
Actions secrets / New secret

Name *

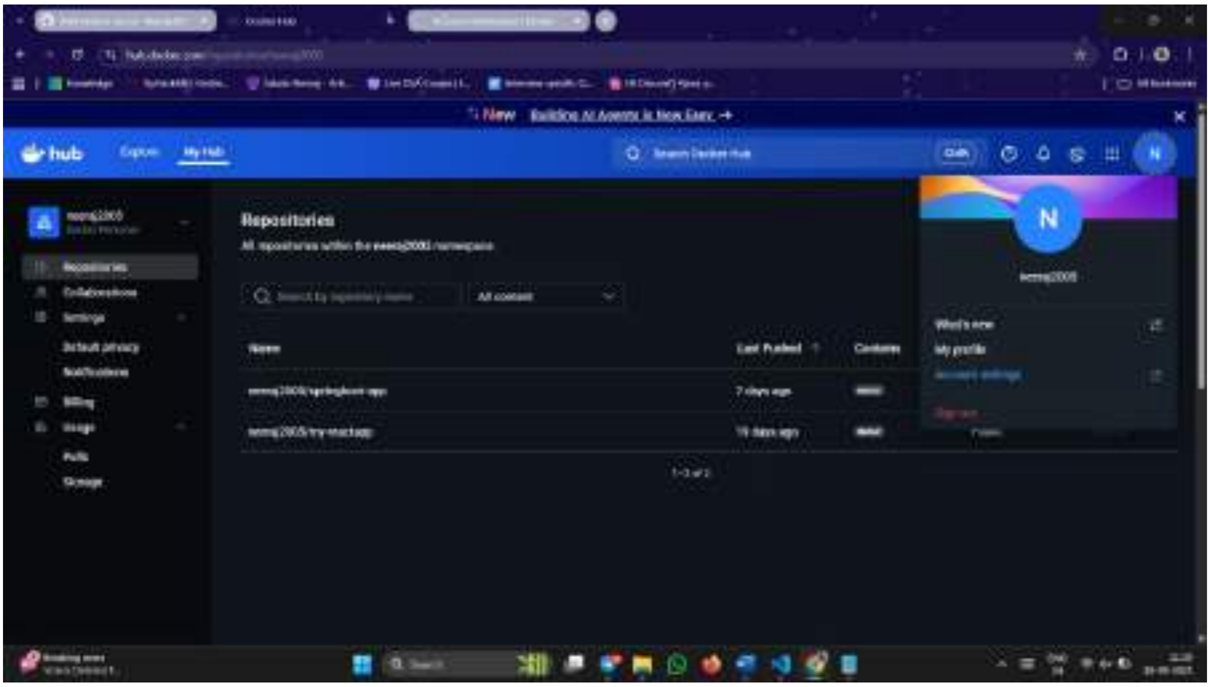
DOCKERHUB_USERNAME

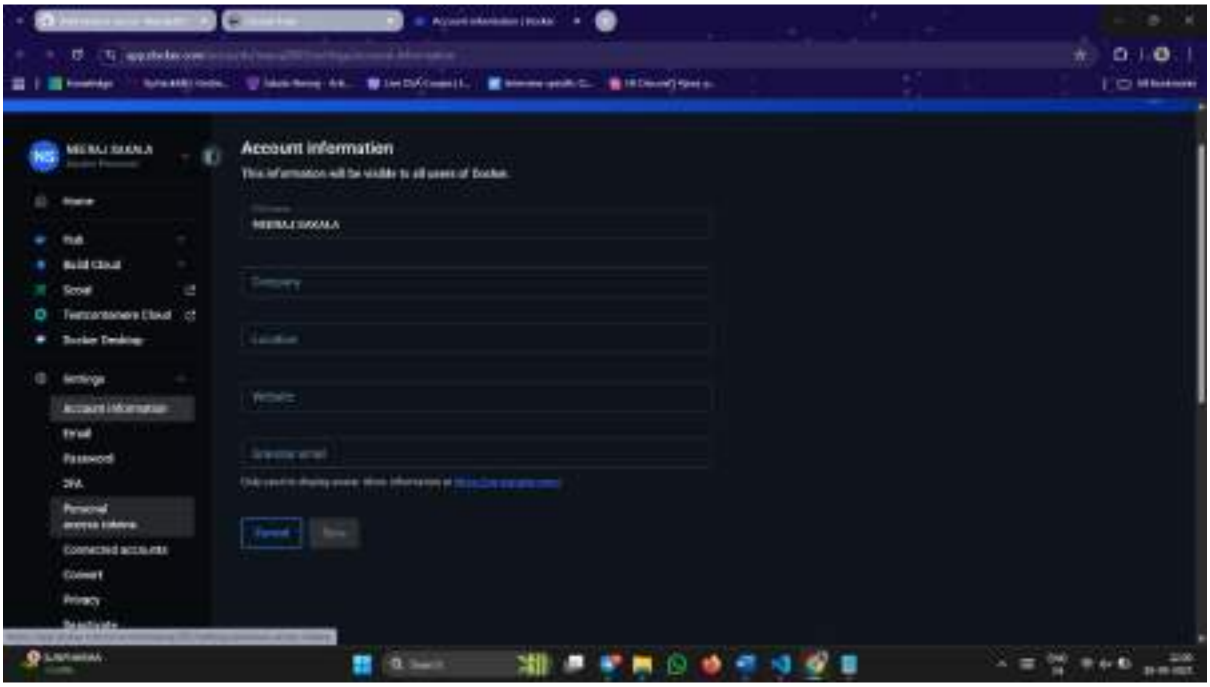
Secret *

->secret variable DOCKERHUB_USERNAME added



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



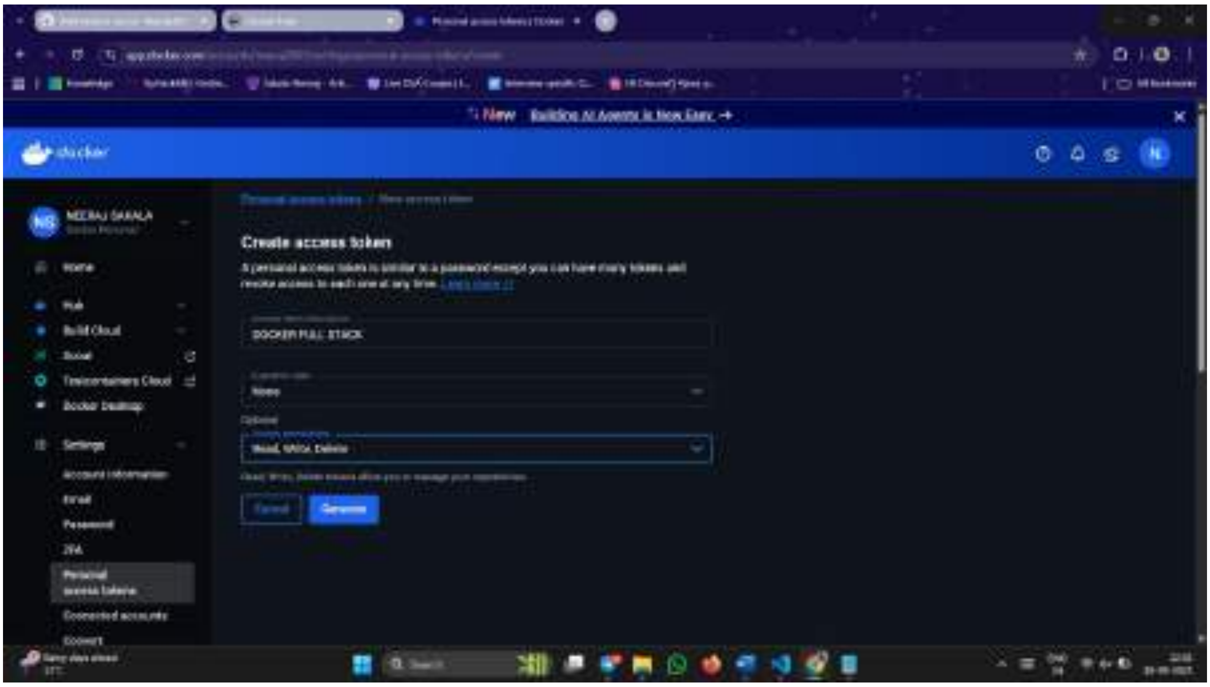


Account information

This information will be visible to all users of Docker.

NEERAJ SAKALA

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



Create access token

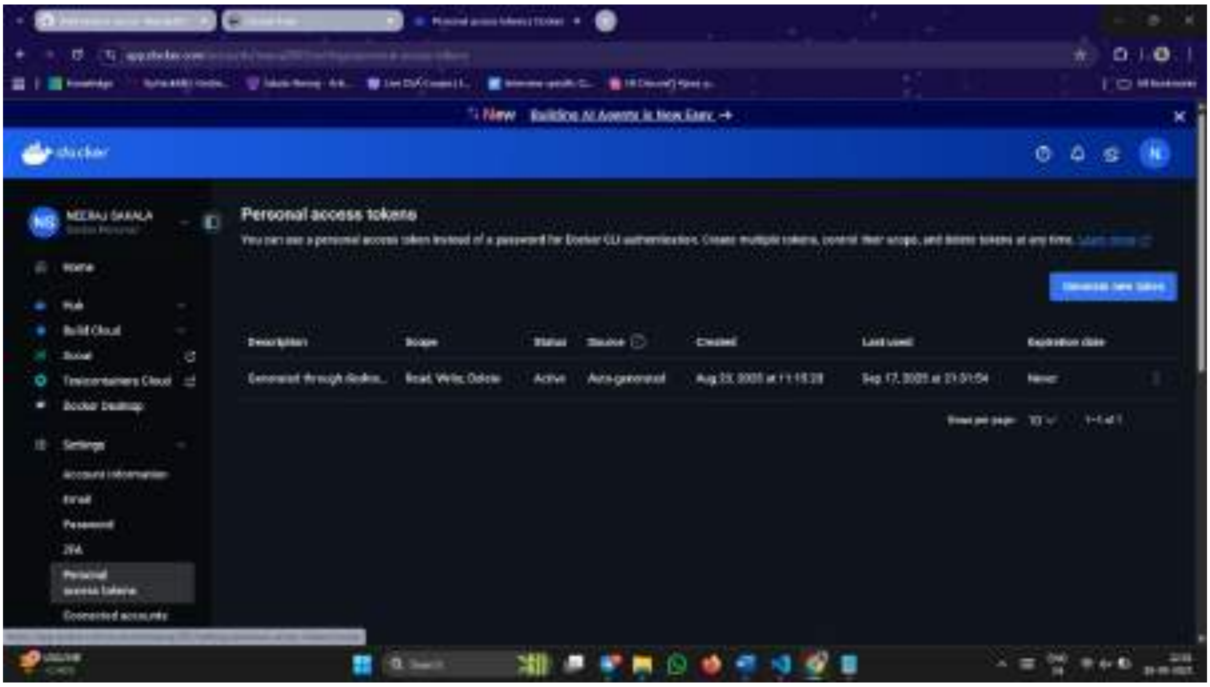
A personal access token is similar to a password except you can have many tokens and revoke access to each one at any time.

DOCKER FULL STACK

None

Optional

Read, Write, Delete



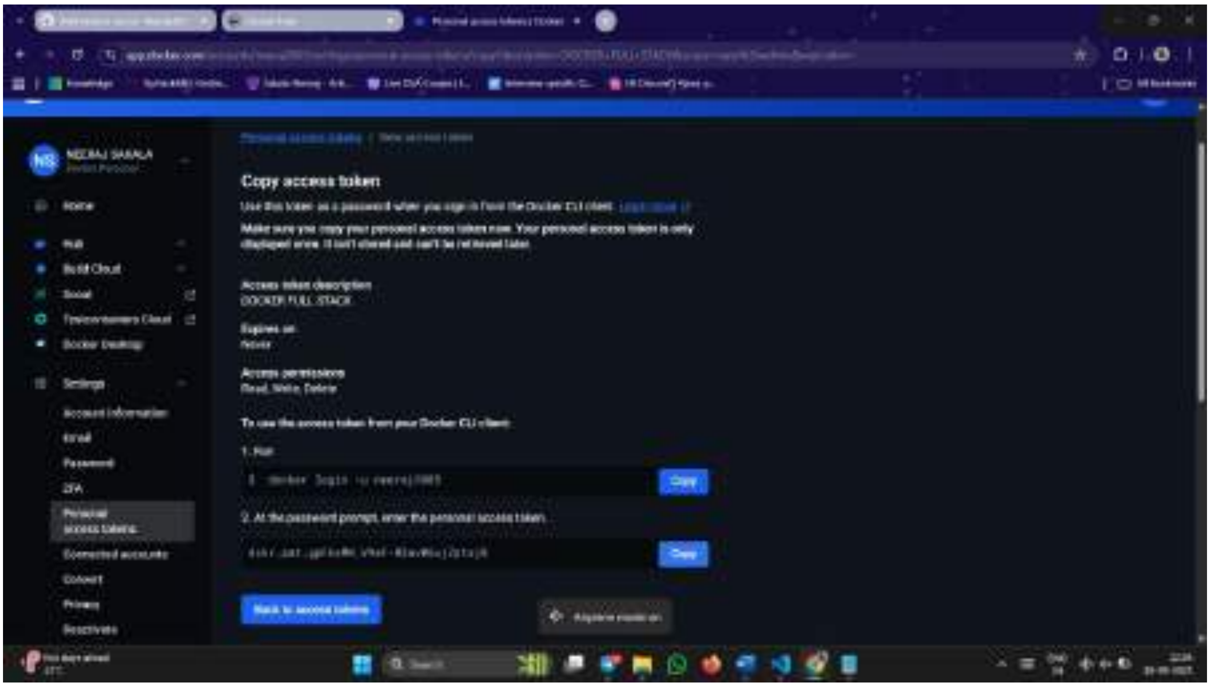
Personal access tokens

You can use a personal access token instead of a password for Docker CLI authentication. Create multiple tokens, control their scope, and delete tokens at any time. Learn more

Description	Scope	Status	Source	Created	Last used	Expiration date
Generated through docke...	Read, Write, Delete	Active	Auto-generated	Aug 23, 2025 at 11:15:28	Sep 17, 2025 at 21:31:54	Never

Rows per page: 10 1–1 of 1

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



Copy access token

Use this token as a password when you sign in from the Docker CLI client. Learn more

Make sure you copy your personal access token now. Your personal access token is only displayed once. It isn't stored and can't be retrieved later.

Access token description
DOCKER FULL STACK

Expires on
Never

Access permissions
Read, Write, Delete

To use the access token from your Docker CLI client:

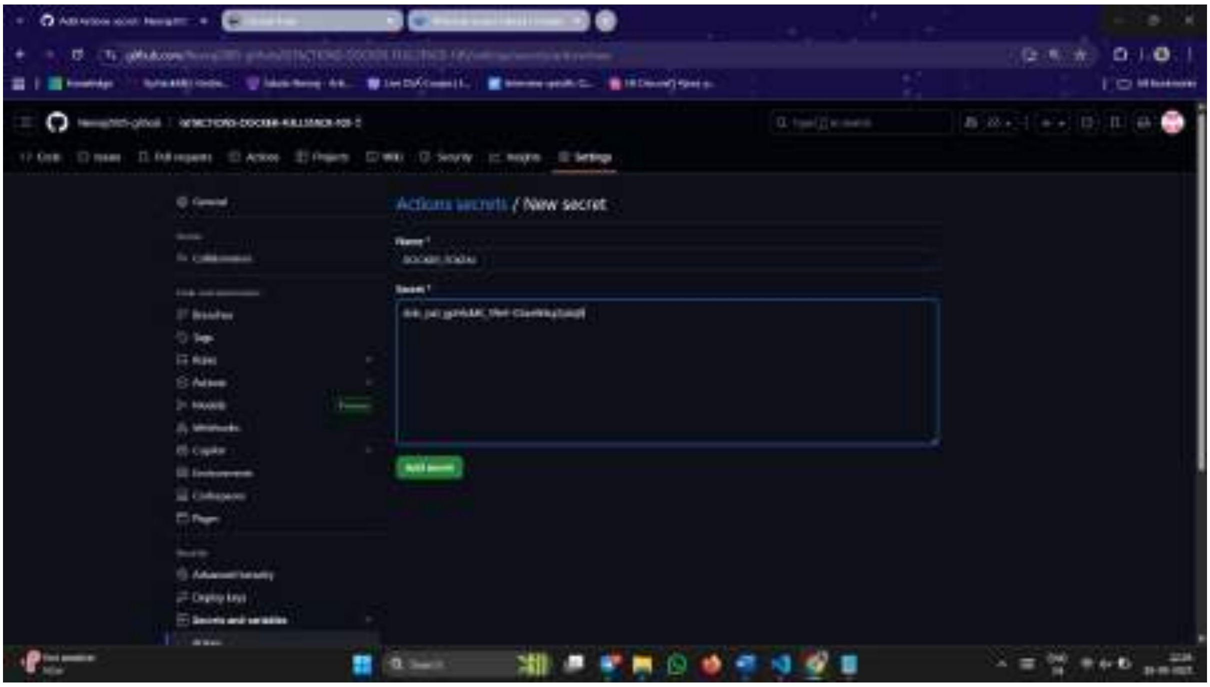
1. Run

```
$ docker login -u neeraj[illegible]
```

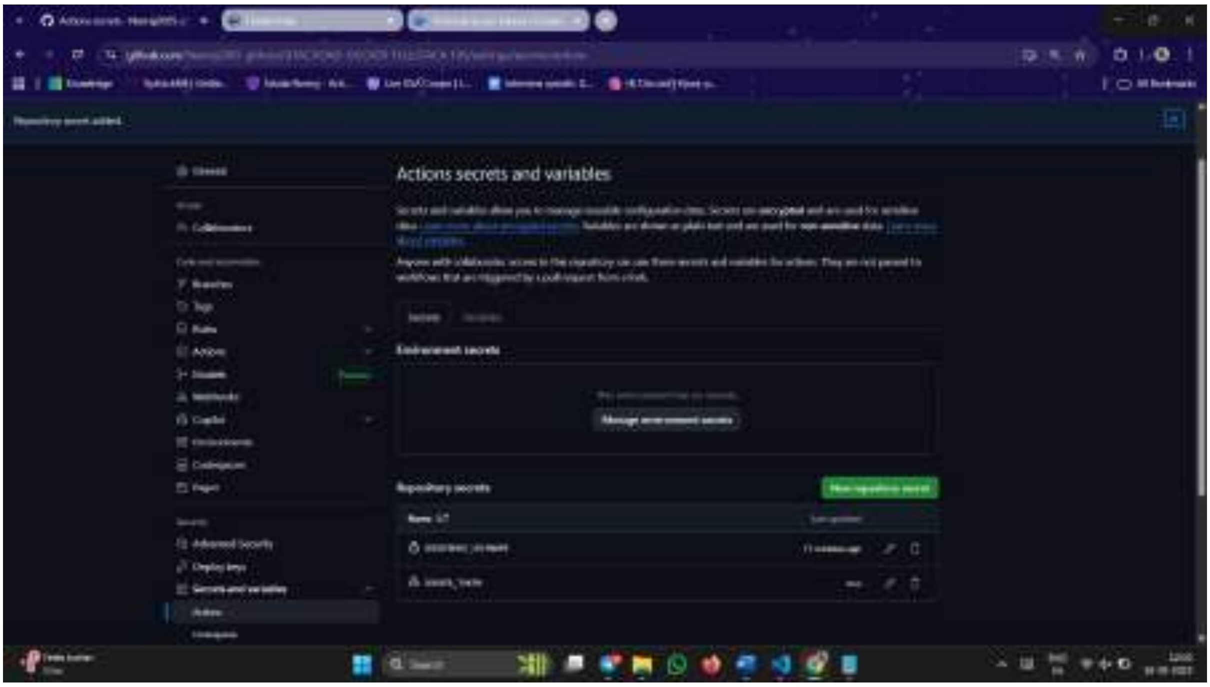
2. At the password prompt, enter the personal access token.

```
dckr_pat_[illegible]
```

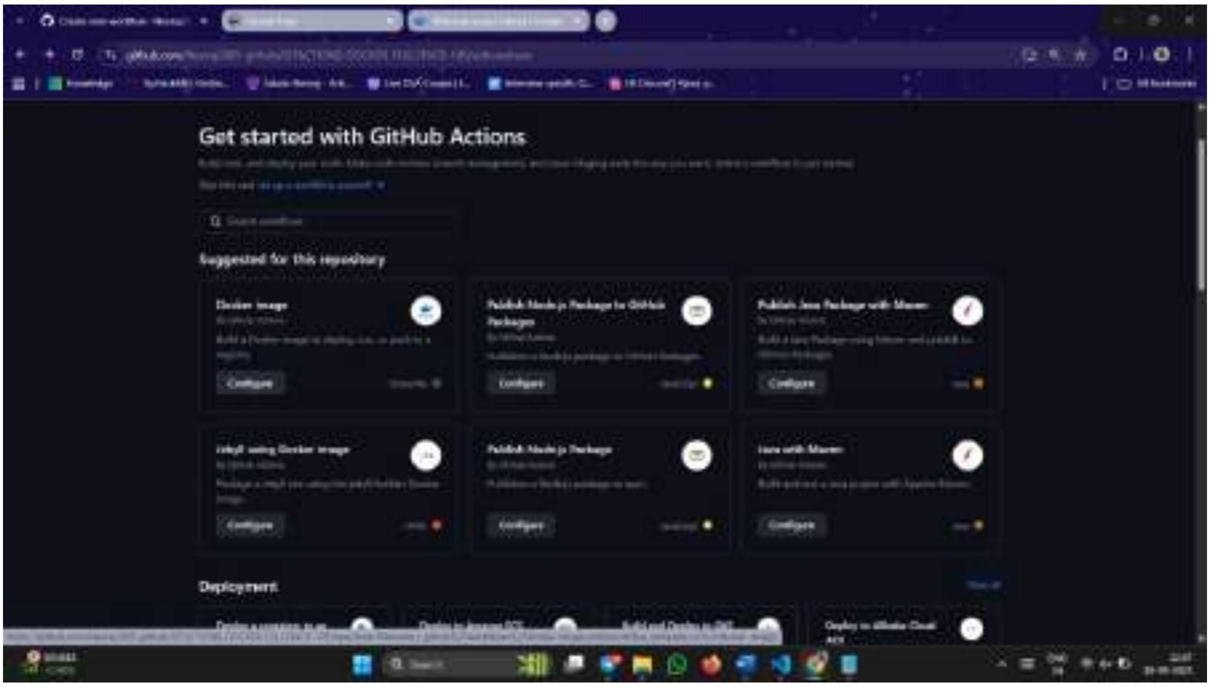
->Add the copied token to secret variable as DOCKERHUB_SECRET properly without any space.



->Add secret



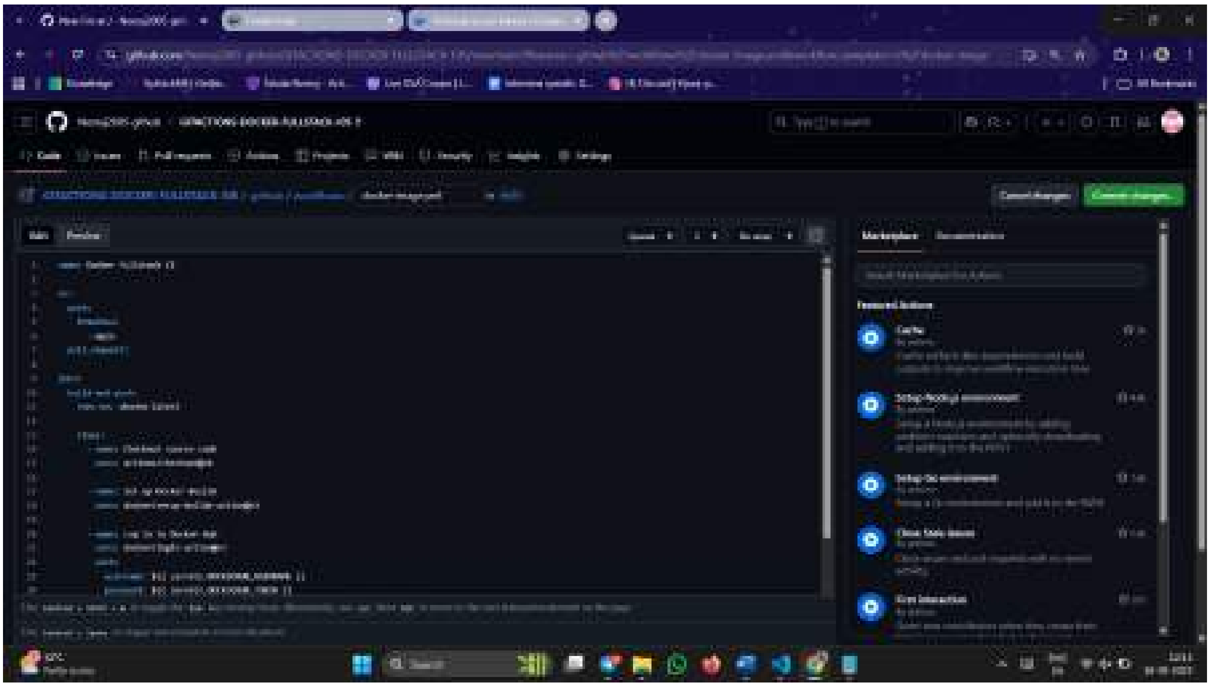
->Actions and configure Docker image as below:



Get started with GitHub Actions

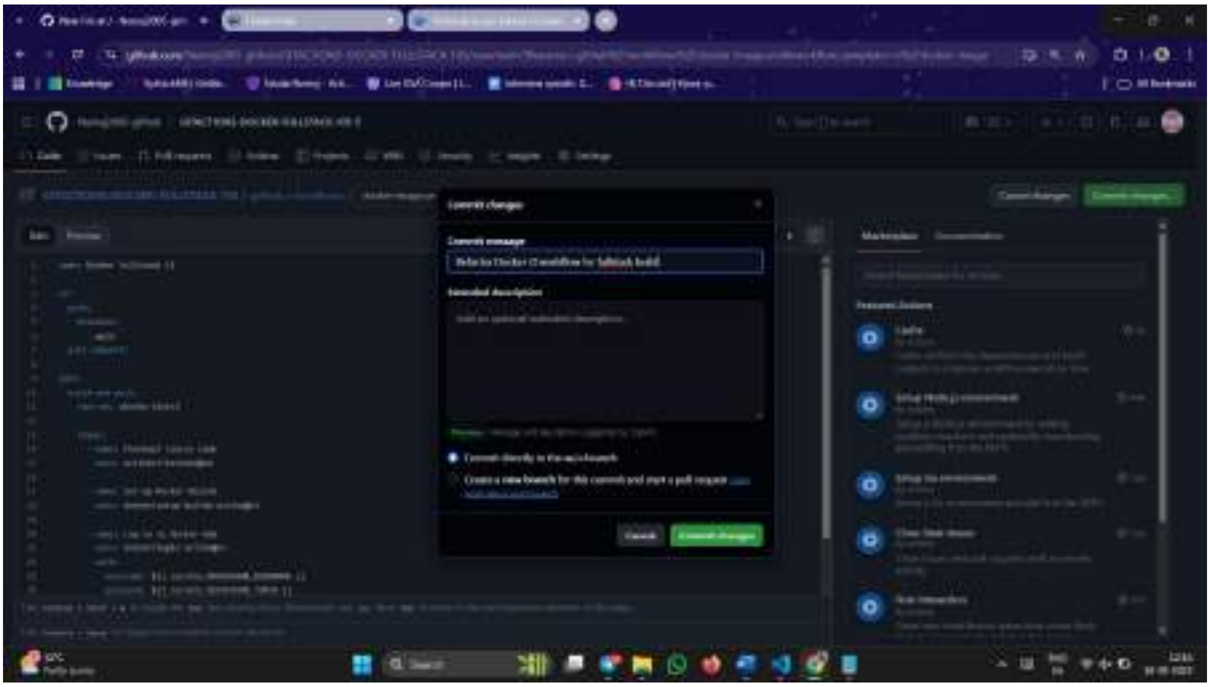
Suggested for this repository

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



```
name: Docker fullstack CI

on:
  push:
    branches:
      - main
  pull_request:

jobs:
  build-and-push:
    runs-on: ubuntu-latest

    steps:
      - name: Checkout source code
        uses: actions/checkout@v4

      - name: Set up Docker Buildx
        uses: docker/setup-buildx-action@v3

      - name: Log in to Docker Hub
        uses: docker/login-action@v3
        with:
          username: ${{ secrets.DOCKERHUB_USERNAME }}
          password: ${{ secrets.DOCKERHUB_TOKEN }}
```

->commit changes



Commit changes

Commit message

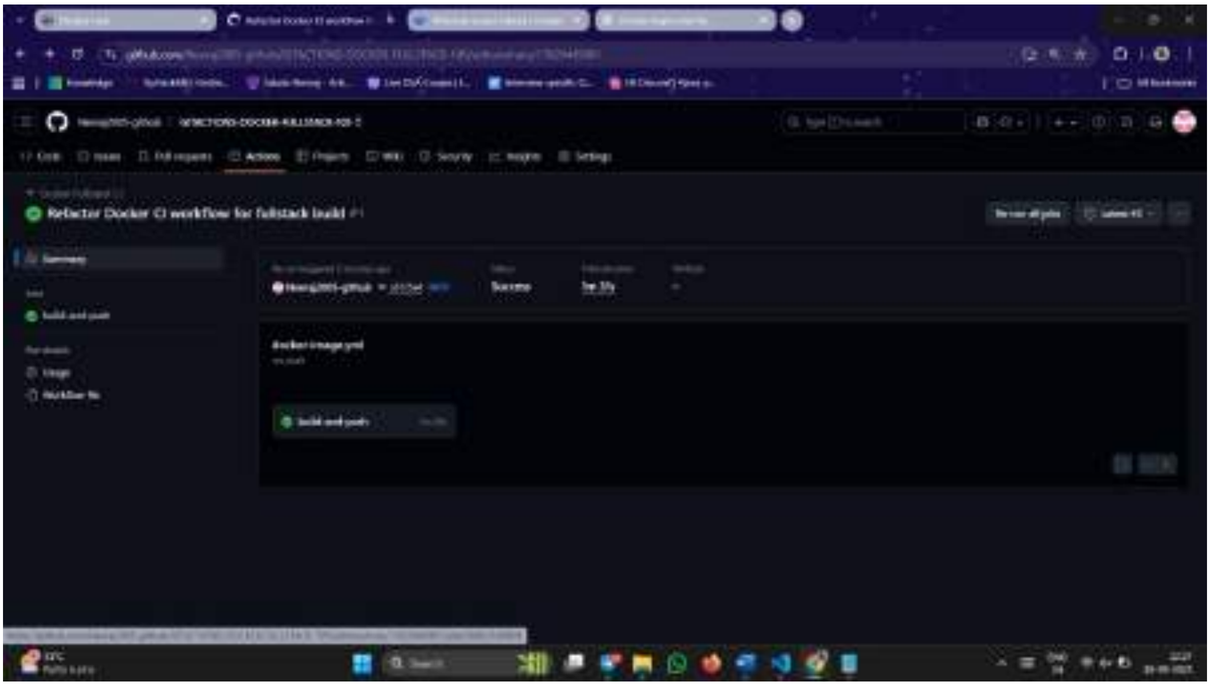
Refactor Docker CI workflow for fullstack build

Extended description

● Commit directly to the main branch

○ Create a new branch for this commit and start a pull request

->go to actions and check for successful build

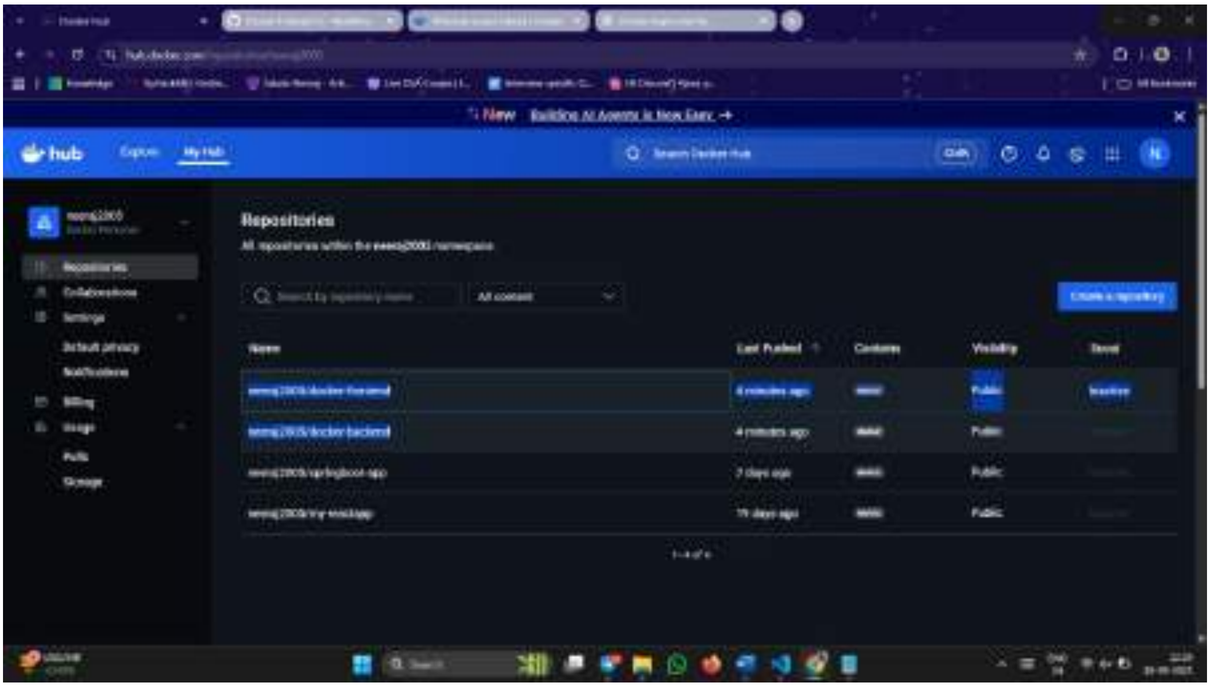


Refactor Docker CI workflow for fullstack build #1

Status: Success

docker-image.yml

->Check images build in docker hub using git actions

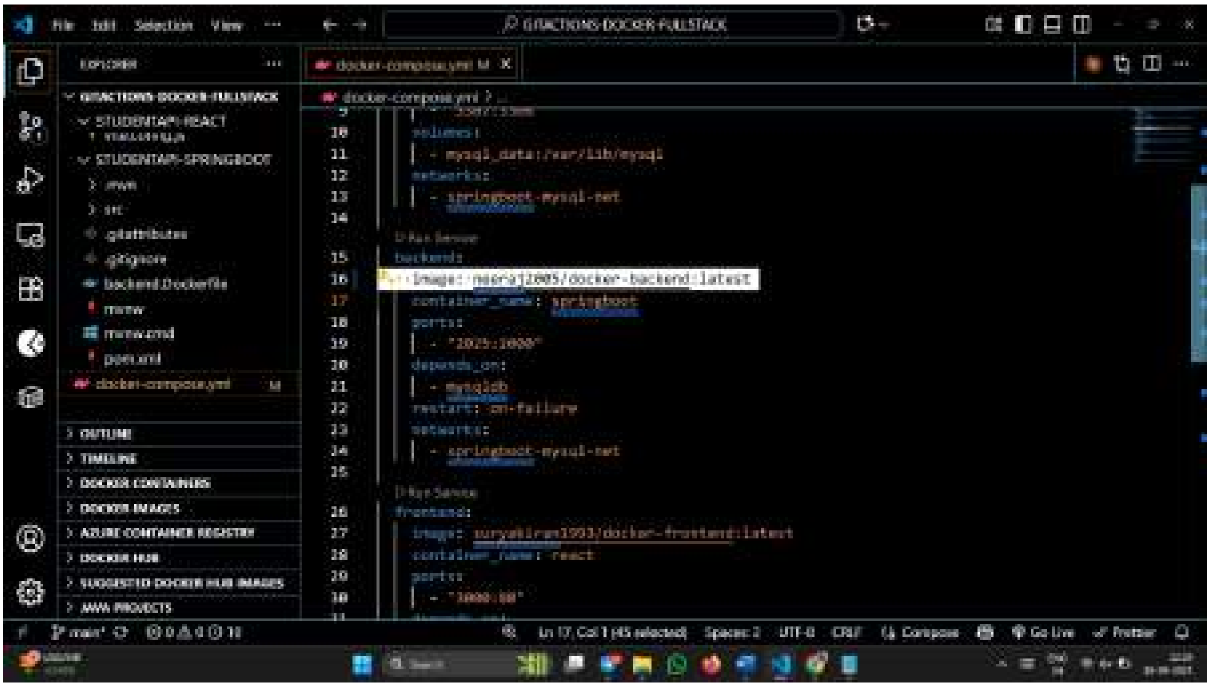


Repositories

All repositories within the neeraj2005 namespace

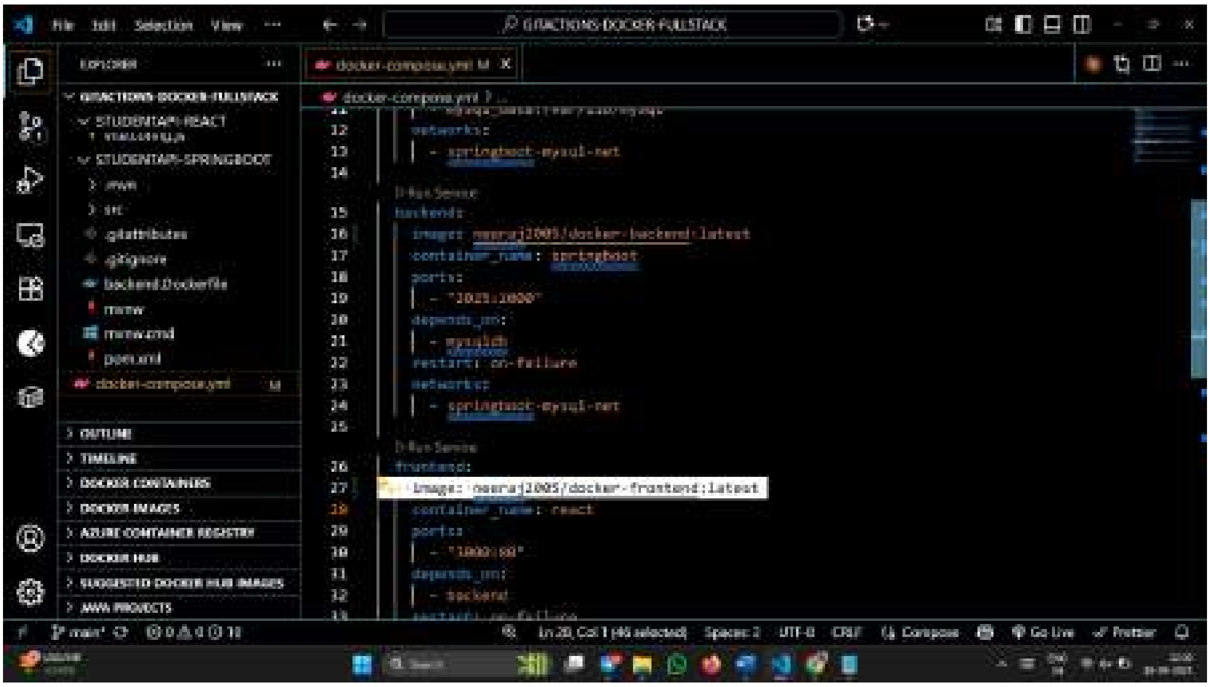
Name	Last Pushed	Contains	Visibility	Scout
neeraj2005/docker-frontend	4 minutes ago	IMAGE	Public	Inactive
neeraj2005/docker-backend	4 minutes ago	IMAGE	Public	
neeraj2005/springboot-app	7 days ago	IMAGE	Public	
neeraj2005/my-webapp	11 days ago	IMAGE	Public	

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



```
    volumes:
      - mysql_data:/var/lib/mysql
    networks:
      - springboot-mysql-net

  backend:
    image: neeraj2005/docker-backend:latest
    container_name: springboot
    ports:
      - "2025:1000"
    depends_on:
      - mysqldb
    restart: on-failure
    networks:
      - springboot-mysql-net

  frontend:
    image: suryakiran1993/docker-frontend:latest
    container_name: react
    ports:
      - "3000:80"
```

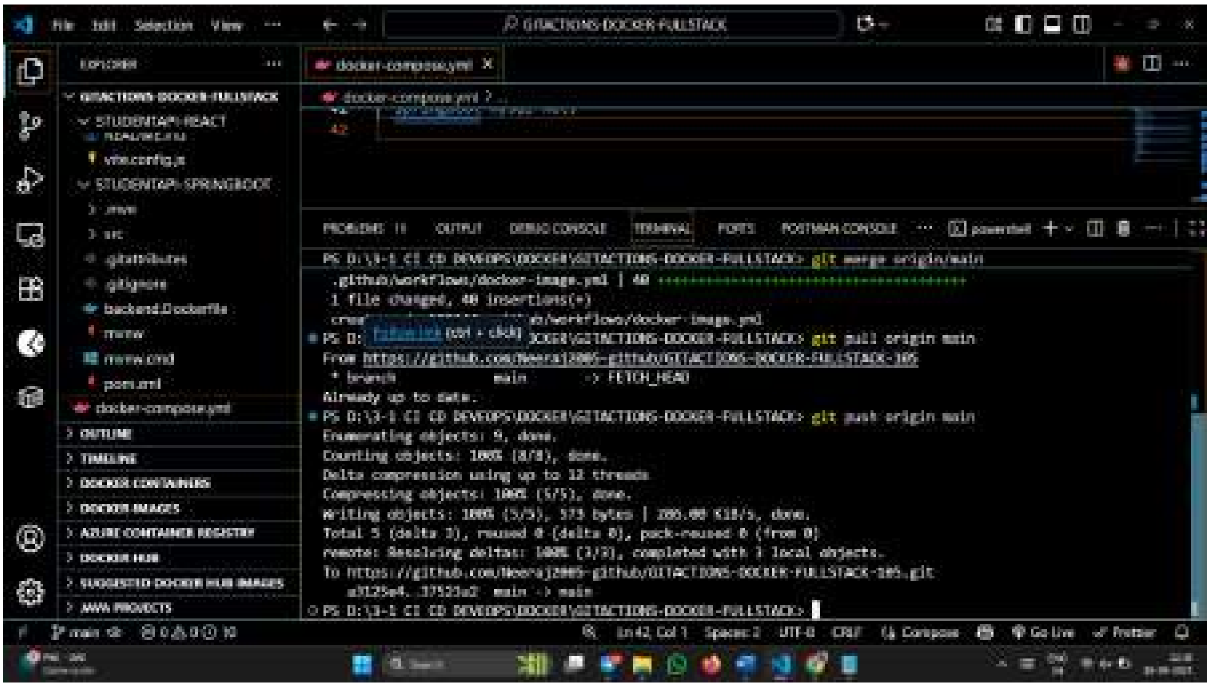
->in docker-compose.yml make sure username is correct for backend image name



```yaml
    networks:
      - springboot-mysql-net

  backend:
    image: neeraj2005/docker-backend:latest
    container_name: springboot
    ports:
      - "2025:2000"
    depends_on:
      - mysqldb
    restart: on-failure
    networks:
      - springboot-mysql-net

  frontend:
    image: neeraj2005/docker-frontend:latest
    container_name: react
    ports:
      - "1000:80"
    depends_on:
      - backend
```

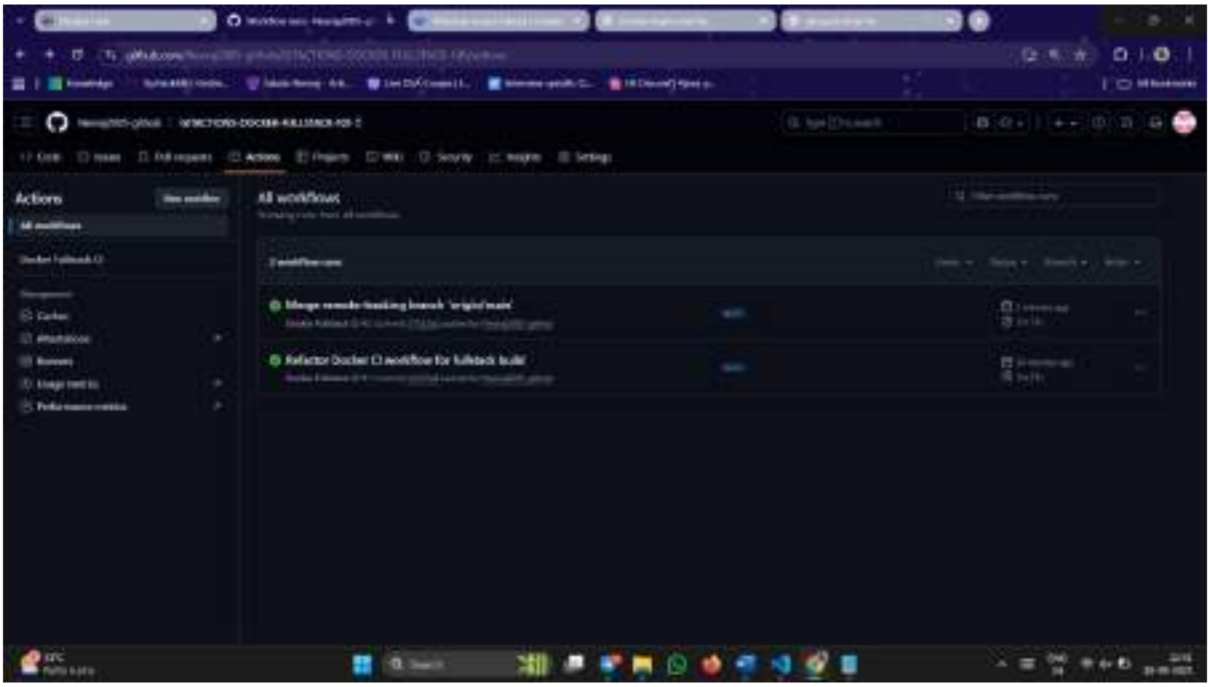
->As Configured image.yml in git repo we need to git pull first in local repo to push updated code as it create merge conflict .

->And then push the updated code



```
PS D:\3-1 CI CD DEVEOPS\DOCKER\GITACTIONS-DOCKER-FULLSTACK> git merge origin/main
 .github/workflows/docker-image.yml | 40 ++++++++++++++++++++++++++++++++++++++++
 1 file changed, 40 insertions(+)
 crea                   b/workflows/docker-image.yml
PS D: Follow link (ctrl + click) OCKER\GITACTIONS-DOCKER-FULLSTACK> git pull origin main
From https://github.com/Neeraj2005-github/GITACTIONS-DOCKER-FULLSTACK-105
 * branch            main       -> FETCH_HEAD
Already up to date.
PS D:\3-1 CI CD DEVEOPS\DOCKER\GITACTIONS-DOCKER-FULLSTACK> git push origin main
Enumerating objects: 9, done.
Counting objects: 100% (8/8), done.
Delta compression using up to 12 threads
Compressing objects: 100% (5/5), done.
Writing objects: 100% (5/5), 573 bytes | 286.00 KiB/s, done.
Total 5 (delta 3), reused 0 (delta 0), pack-reused 0 (from 0)
remote: Resolving deltas: 100% (3/3), completed with 3 local objects.
To https://github.com/Neeraj2005-github/GITACTIONS-DOCKER-FULLSTACK-105.git
   a3125e4..37523a2  main -> main
PS D:\3-1 CI CD DEVEOPS\DOCKER\GITACTIONS-DOCKER-FULLSTACK>
```

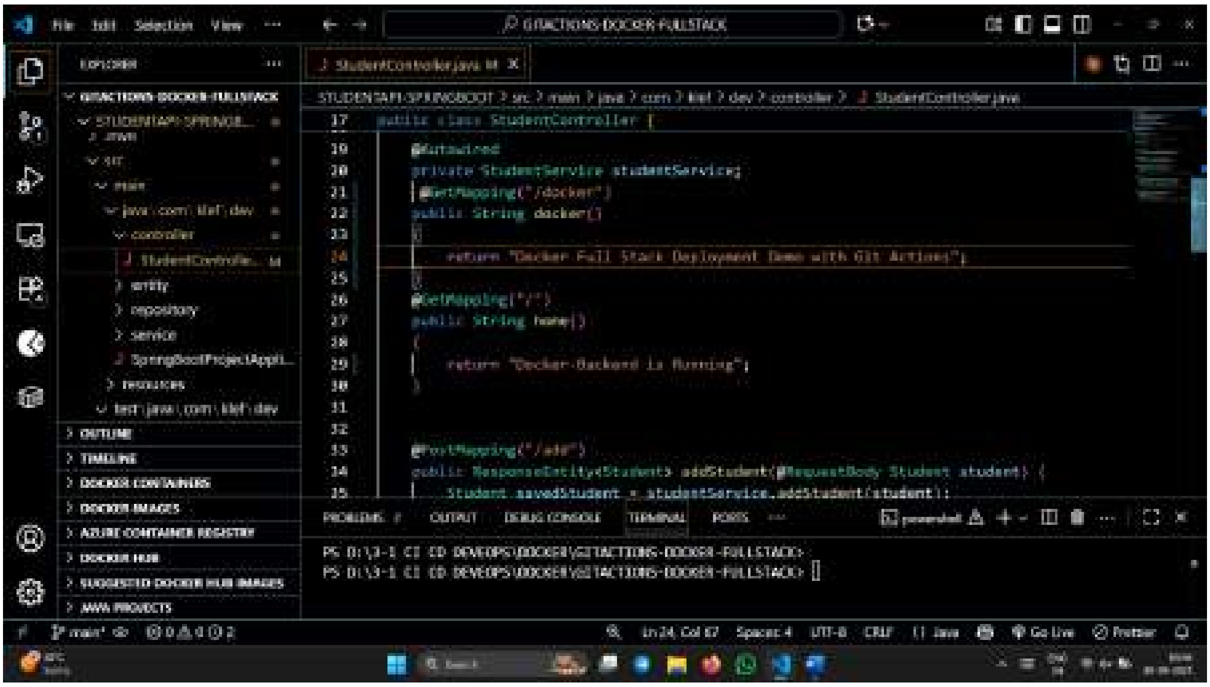
->we can see the updated code started actions after push without any manual deployment



All workflows

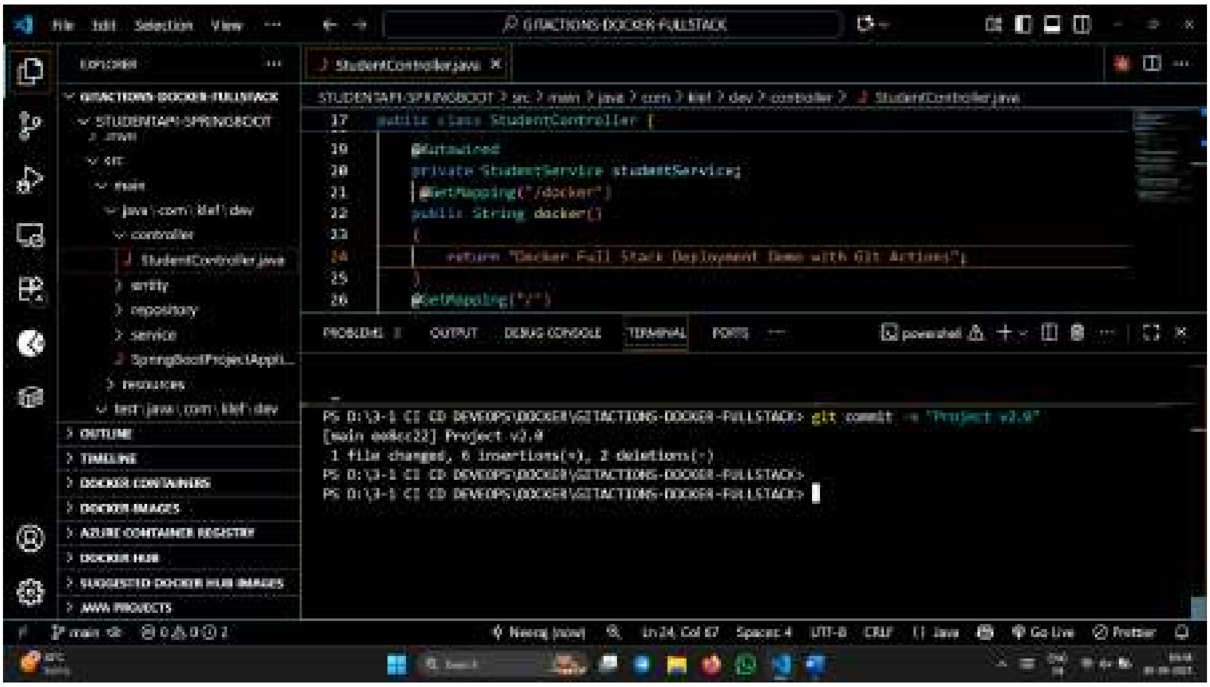
Merge remote-tracking branch 'origin/main'

Refactor Docker CI workflow for fullstack build



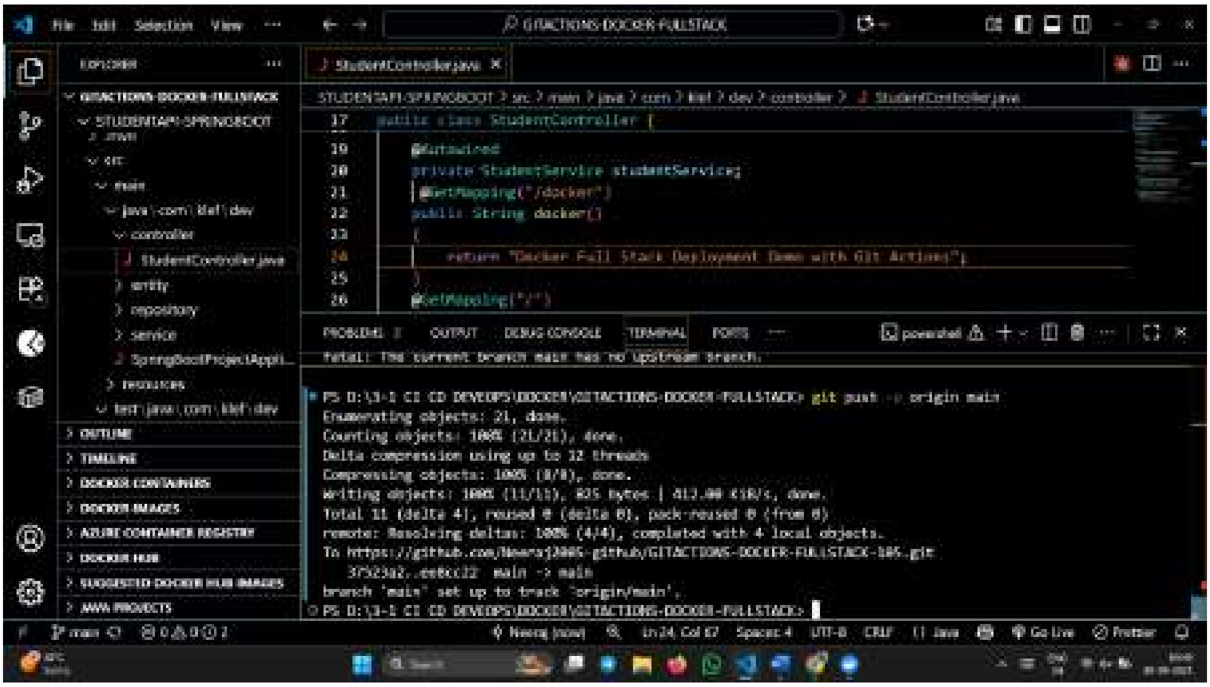
```java
public class StudentController {

    @Autowired
    private StudentService studentService;
    @GetMapping("/docker")
    public String docker()
    {
        return "Docker Full Stack Deployment Demo with Git Actions";
    }
    @GetMapping("/")
    public String home()
    {
        return "Docker-Backend is Running";
    }


    @PostMapping("/add")
    public ResponseEntity<Student> addStudent(@RequestBody Student student) {
        Student savedStudent = studentService.addStudent(student);
```

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



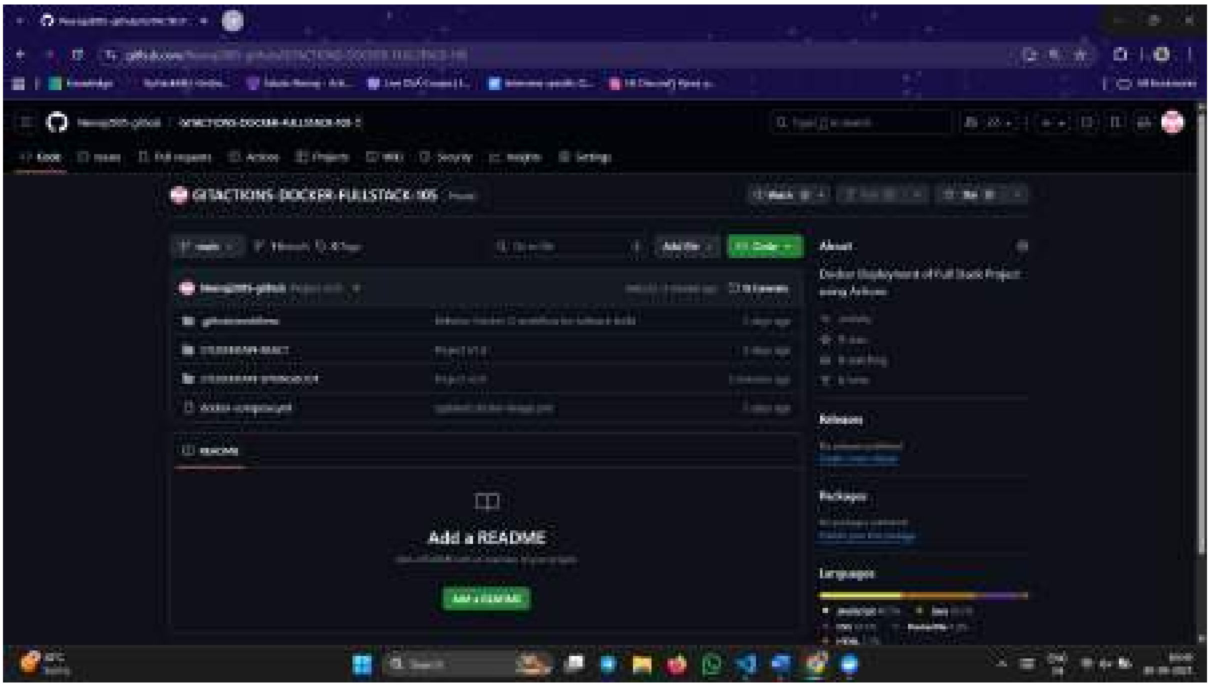
```java
public class StudentController {

    @Autowired
    private StudentService studentService;
    @GetMapping("/docker")
    public String docker()
    {
        return "Docker Full Stack Deployment Demo with Git Actions";
    }
    @GetMapping("/")
```

```
PS D:\3-1 CI CD DEVEOPS\DOCKER\GITACTIONS-DOCKER-FULLSTACK> git commit -m "Project v2.0"
[main ee4cc22] Project v2.0
 1 file changed, 6 insertions(+), 2 deletions(-)
PS D:\3-1 CI CD DEVEOPS\DOCKER\GITACTIONS-DOCKER-FULLSTACK>
PS D:\3-1 CI CD DEVEOPS\DOCKER\GITACTIONS-DOCKER-FULLSTACK>
```



```java
public class StudentController {

    @Autowired
    private StudentService studentService;
    @GetMapping("/docker")
    public String docker()
    {
        return "Docker Full Stack Deployment Demo with Git Actions";
    }
    @GetMapping("/")
```

```
fatal: The current branch main has no upstream branch.

PS D:\3-1 CI CD DEVEOPS\DOCKER\GITACTIONS-DOCKER-FULLSTACK> git push -u origin main
Enumerating objects: 21, done.
Counting objects: 100% (21/21), done.
Delta compression using up to 12 threads
Compressing objects: 100% (8/8), done.
Writing objects: 100% (11/11), 825 bytes | 412.00 KiB/s, done.
Total 11 (delta 4), reused 0 (delta 0), pack-reused 0 (from 0)
remote: Resolving deltas: 100% (4/4), completed with 4 local objects.
To https://github.com/Neeraj2005-github/GITACTIONS-DOCKER-FULLSTACK-105.git
   3752342..ee8cc22  main -> main
branch 'main' set up to track 'origin/main'.
PS D:\3-1 CI CD DEVEOPS\DOCKER\GITACTIONS-DOCKER-FULLSTACK> 
```



GITACTIONS-DOCKER-FULLSTACK-105

About

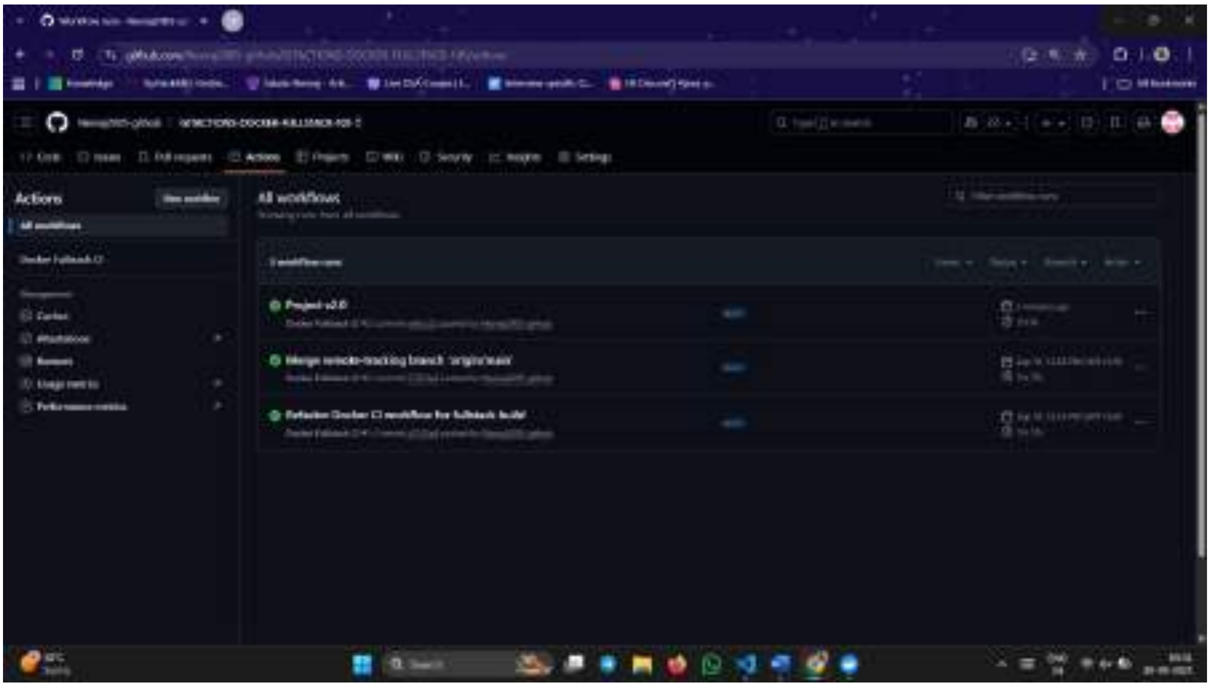
Docker Deployment of Full Stack Project using Actions

Add a README

Releases

Packages

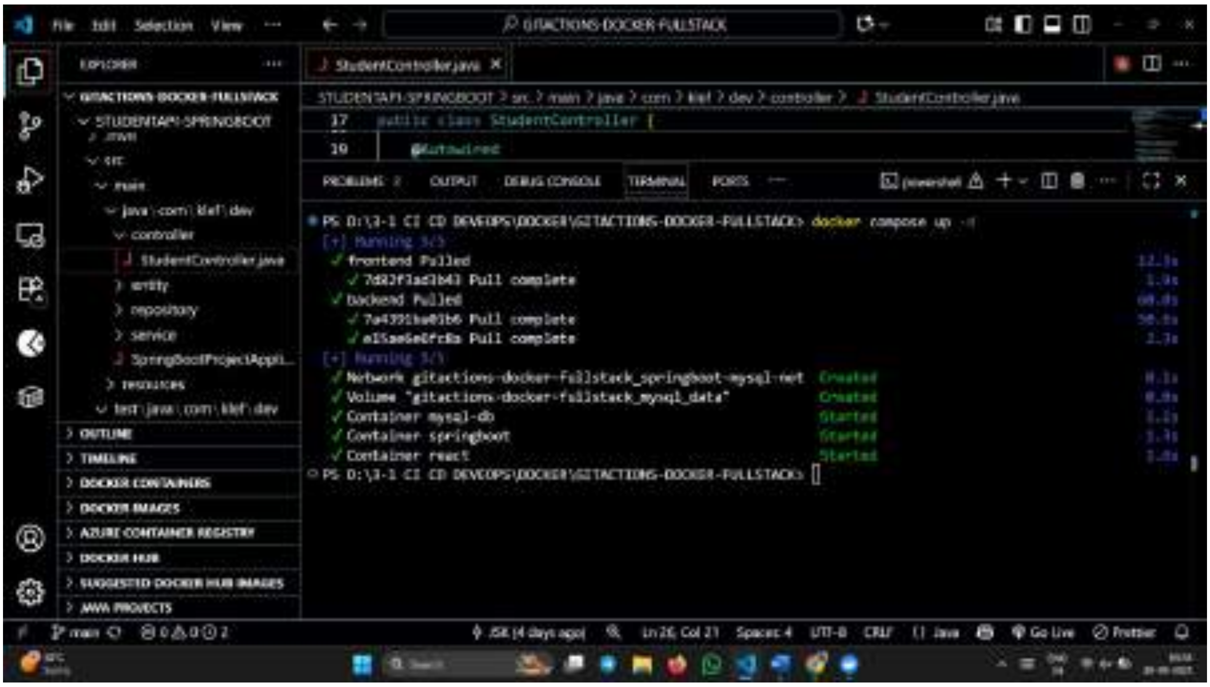
Languages



All workflows

3 workflow runs

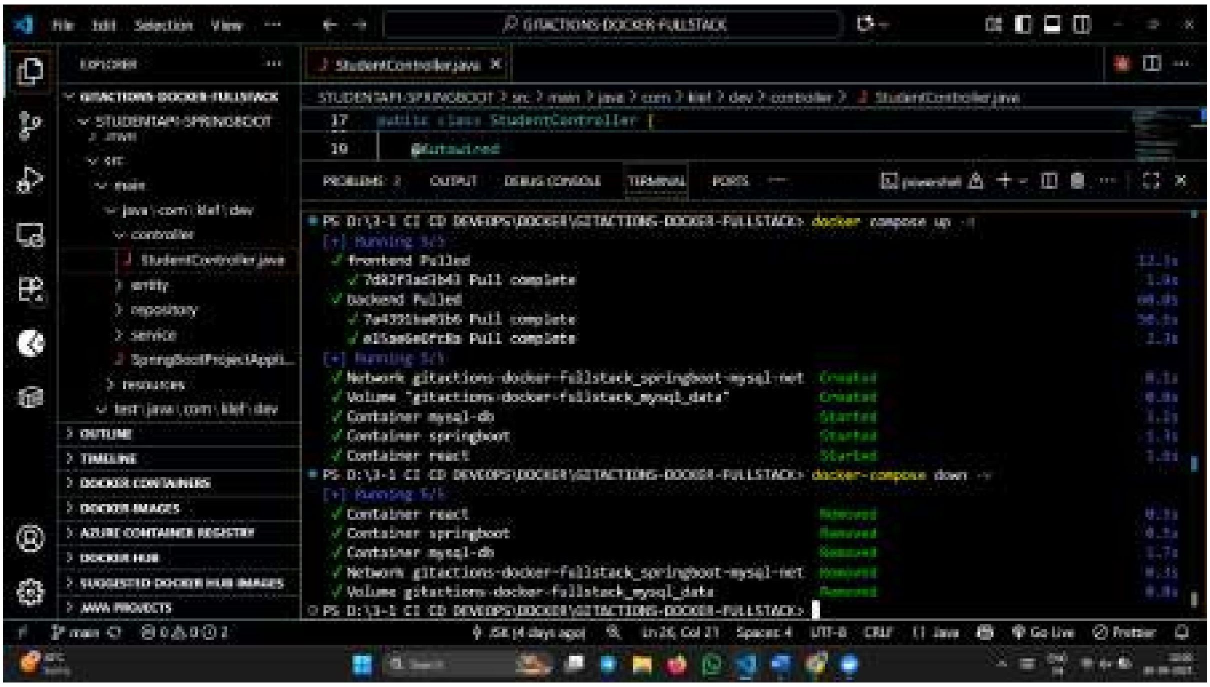
- Project v2.0
- Merge remote-tracking branch 'origin/main'
- Refactor Docker CI workflow for fullstack build



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

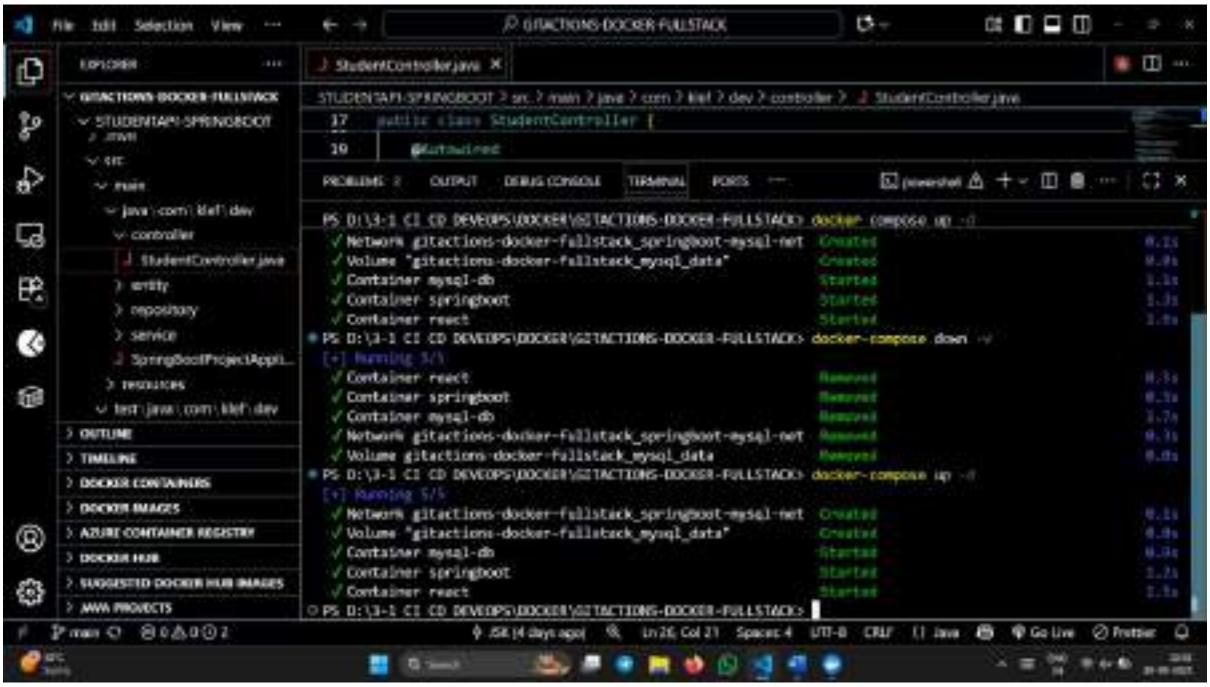
```
public class StudentController {
    @Autowired
```

```
PS D:\3-1 CI CD DEVOPS\DOCKER\GITACTIONS-DOCKER-FULLSTACK> docker compose up -d
[+] Running 3/3
 ✓ frontend Pulled                                                           12.3s
   ✓ 7d82f1ad3b43 Pull complete                                               1.9s
 ✓ backend Pulled                                                            60.0s
   ✓ 7a4391ba01b6 Pull complete                                              58.0s
   ✓ e15ae6e0fc8a Pull complete                                               2.7s
[+] 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          3.1s
 ✓ Container springboot                                      Started          3.3s
 ✓ Container react                                           Started          3.0s
PS D:\3-1 CI CD DEVOPS\DOCKER\GITACTIONS-DOCKER-FULLSTACK> 
```



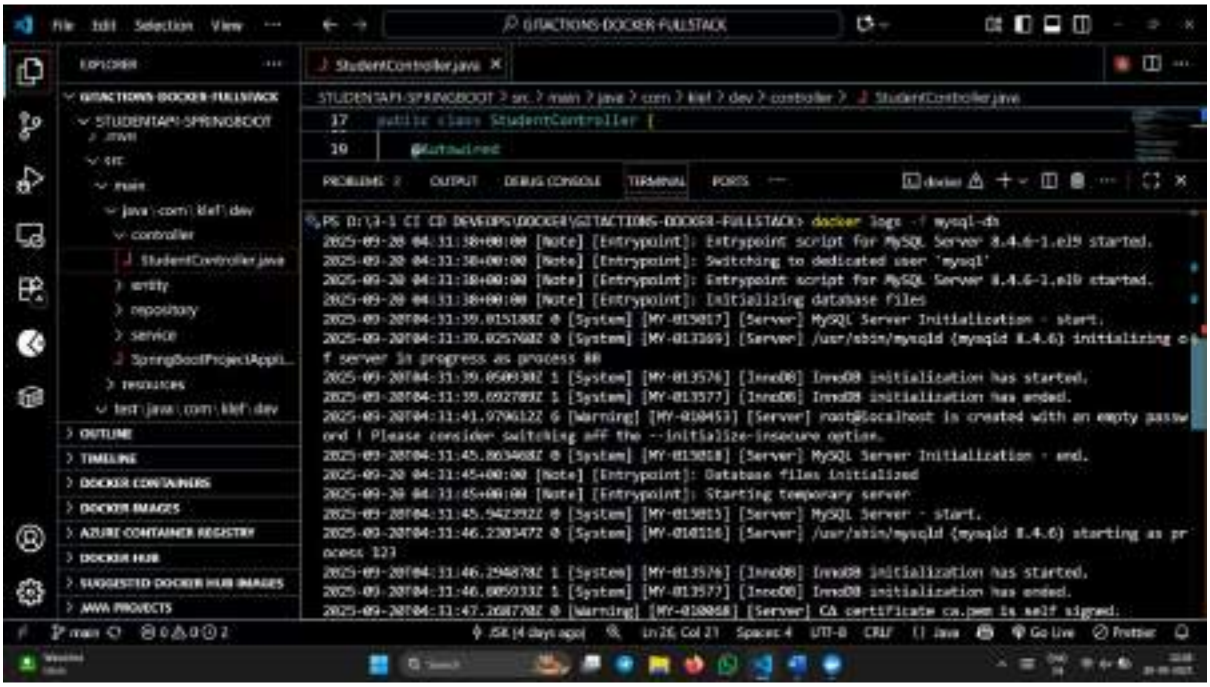
```
17    public class StudentController {
19        @Autowired
```

```
PS D:\3-1 CI CD DEVEOPS\DOCKER\GITACTIONS-DOCKER-FULLSTACK> docker compose up -d
[+] Running 5/5
 ✓ frontend Pulled                                                              12.1s
   ✓ 7d82f3ad3b43 Pull complete                                                  1.0s
 ✓ backend Pulled                                                               69.0s
   ✓ 7a4391ba01b6 Pull complete                                                 50.5s
   ✓ e15ae6e0fc8a Pull complete                                                  1.1s
[+] 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             1.1s
 ✓ Container react                                           Started             1.0s
PS D:\3-1 CI CD DEVEOPS\DOCKER\GITACTIONS-DOCKER-FULLSTACK> docker-compose down -v
[+] Running 5/5
 ✓ Container react                                           Removed             0.1s
 ✓ 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\GITACTIONS-DOCKER-FULLSTACK>
```



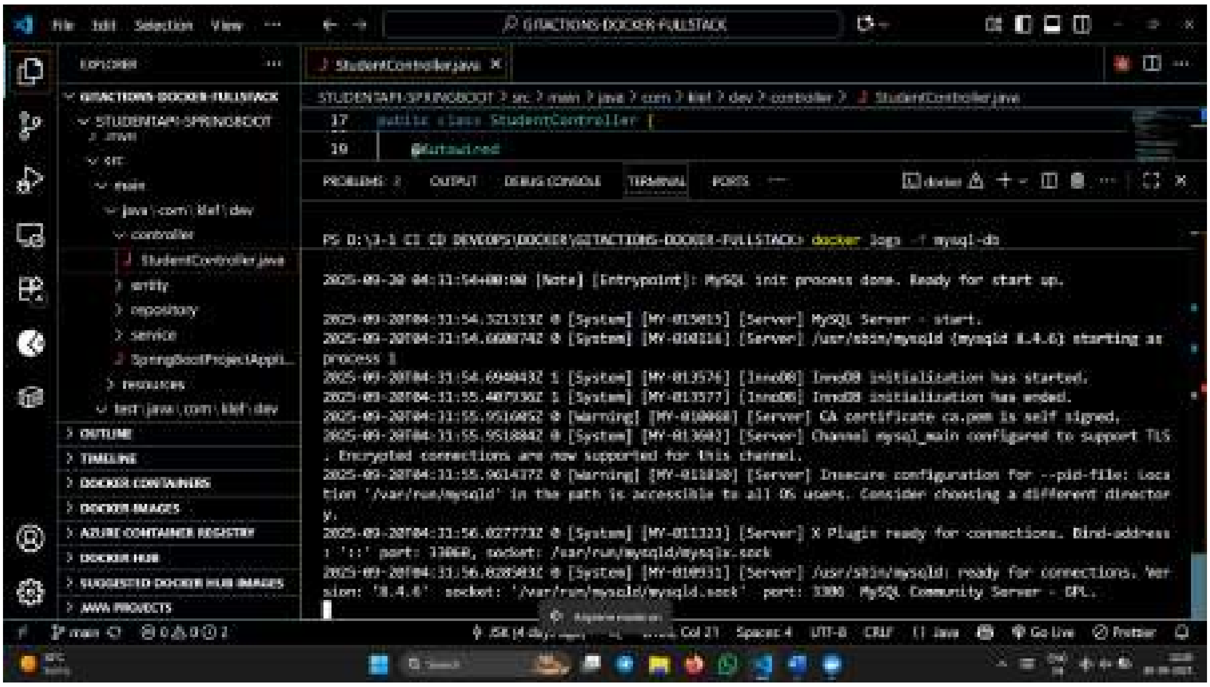
```
17    public class StudentController {
19        @Autowired
```

```
PS D:\3-1 CI CD DEVEOPS\DOCKER\GITACTIONS-DOCKER-FULLSTACK> docker compose up -d
 ✓ 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             1.1s
 ✓ Container react                                           Started             1.0s
PS D:\3-1 CI CD DEVEOPS\DOCKER\GITACTIONS-DOCKER-FULLSTACK> docker-compose down -v
[+] Running 5/5
 ✓ Container react                                           Removed             0.1s
 ✓ 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\GITACTIONS-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             1.1s
PS D:\3-1 CI CD DEVEOPS\DOCKER\GITACTIONS-DOCKER-FULLSTACK>
```



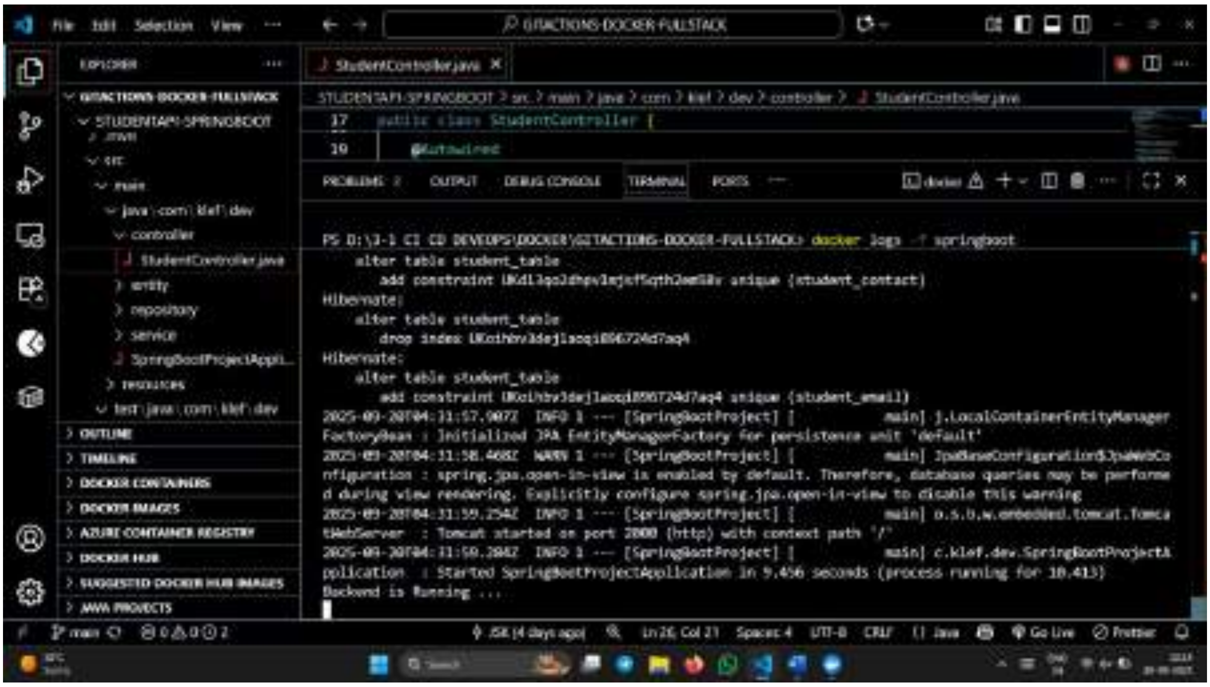
```
17  public class StudentController {
19      @Autowired
```

```
PS D:\3-1 CI CD DEVOPS\DOCKER\GITACTIONS-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 0 [System] [MY-015017] [Server] MySQL Server Initialization - start.
2025-09-20T04:31:39.025760Z 0 [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 1 [System] [MY-013576] [InnoDB] InnoDB initialization has started.
2025-09-20T04:31:39.692789Z 1 [System] [MY-013577] [InnoDB] InnoDB initialization has ended.
2025-09-20T04:31:41.979612Z 6 [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 0 [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 0 [System] [MY-015015] [Server] MySQL Server - start.
2025-09-20T04:31:46.230347Z 0 [System] [MY-010116] [Server] /usr/sbin/mysqld (mysqld 8.4.6) starting as pr
ocess 123
2025-09-20T04:31:46.294878Z 1 [System] [MY-013576] [InnoDB] InnoDB initialization has started.
2025-09-20T04:31:46.805933Z 1 [System] [MY-013577] [InnoDB] InnoDB initialization has ended.
2025-09-20T04:31:47.268770Z 0 [Warning] [MY-010068] [Server] CA certificate ca.pem is self signed.
```



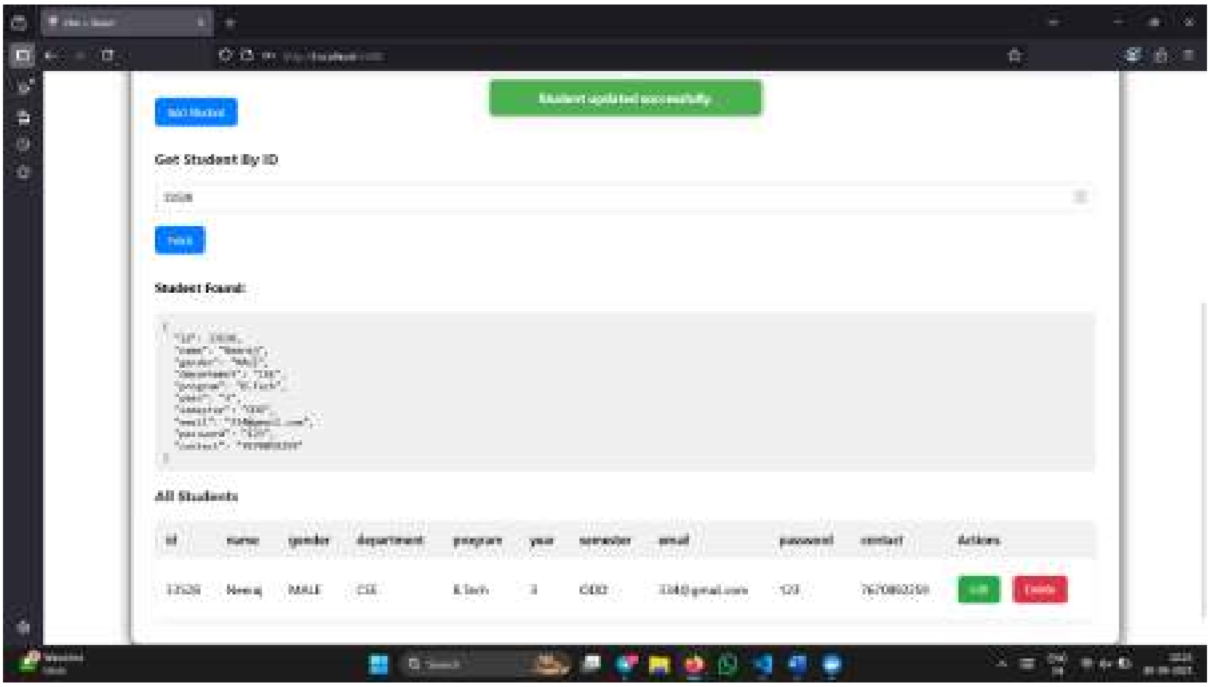
```
17  public class StudentController {
19      @Autowired
```

```
PS D:\3-1 CI CD DEVOPS\DOCKER\GITACTIONS-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 0 [System] [MY-015015] [Server] MySQL Server - start.
2025-09-20T04:31:54.660874Z 0 [System] [MY-010116] [Server] /usr/sbin/mysqld (mysqld 8.4.6) starting as
process 1
2025-09-20T04:31:54.694043Z 1 [System] [MY-013576] [InnoDB] InnoDB initialization has started.
2025-09-20T04:31:55.407930Z 1 [System] [MY-013577] [InnoDB] InnoDB initialization has ended.
2025-09-20T04:31:55.951605Z 0 [Warning] [MY-010068] [Server] CA certificate ca.pem is self signed.
2025-09-20T04:31:55.951884Z 0 [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 0 [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 0 [System] [MY-011323] [Server] X Plugin ready for connections. Bind-address
: '::' port: 33060, socket: /var/run/mysqld/mysqlx.sock
2025-09-20T04:31:56.028503Z 0 [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.
```



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

```
PS D:\3-1 CI CD DEVEOPS\DOCKER\GITACTIONS-DOCKER-FULLSTACK> docker logs -f springboot
    alter table student_table
       add constraint UKdl3qo2dhpv1mjef5qth2em58v unique (student_contact)
Hibernate:
    alter table student_table
       drop index UKoihbv3dej1aoqi896724d7aq4
Hibernate:
    alter table student_table
       add constraint UKoihbv3dej1aoqi896724d7aq4 unique (student_email)
2025-09-20T04:31:57.987Z  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
tWebServer  : Tomcat started on port 2000 (http) with context path '/'
2025-09-20T04:31:59.288Z  INFO 1 --- [SpringBootProject] [           main] c.klef.dev.SpringBootProjectA
pplication  : Started SpringBootProjectApplication in 9.456 seconds (process running for 10.413)
Backend is Running ...
```



Student updated successfully

Get Student By ID

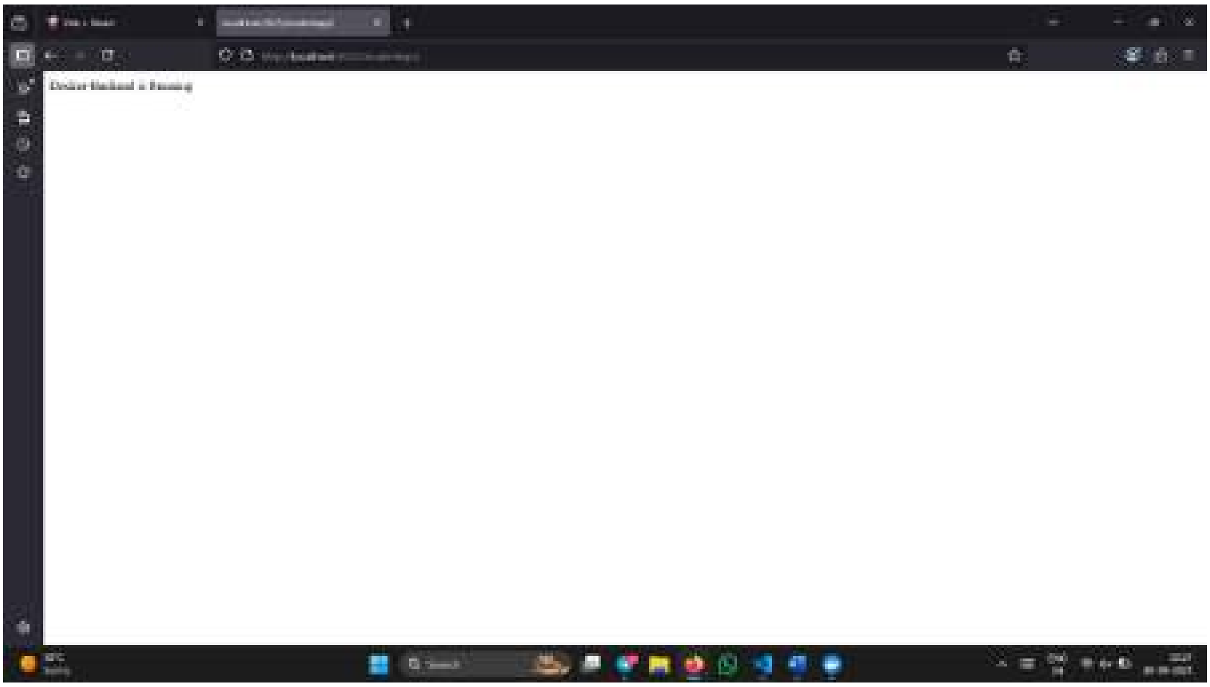
13526

Student Found:

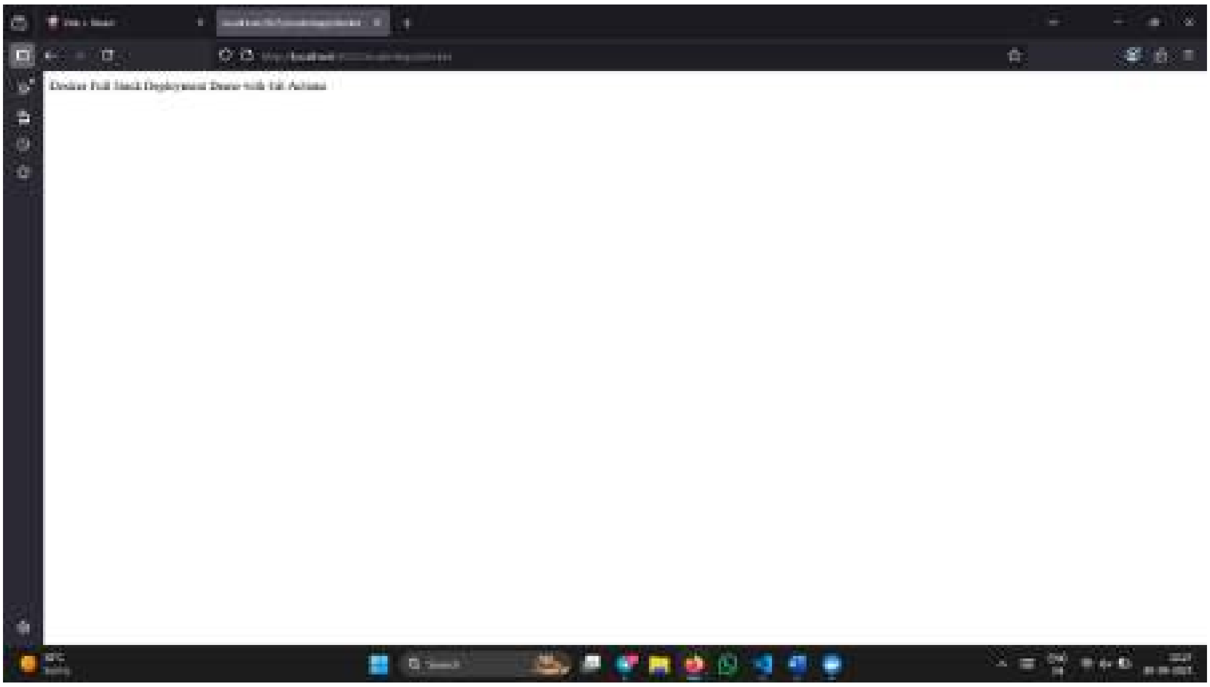
```
{
  "id": 13526,
  "name": "Neeraj",
  "gender": "MALE",
  "department": "CSE",
  "program": "B.Tech",
  "year": "3",
  "semester": "ODD",
  "email": "334@gmail.com",
  "password": "123",
  "contact": "7670802250"
}
```

All Students

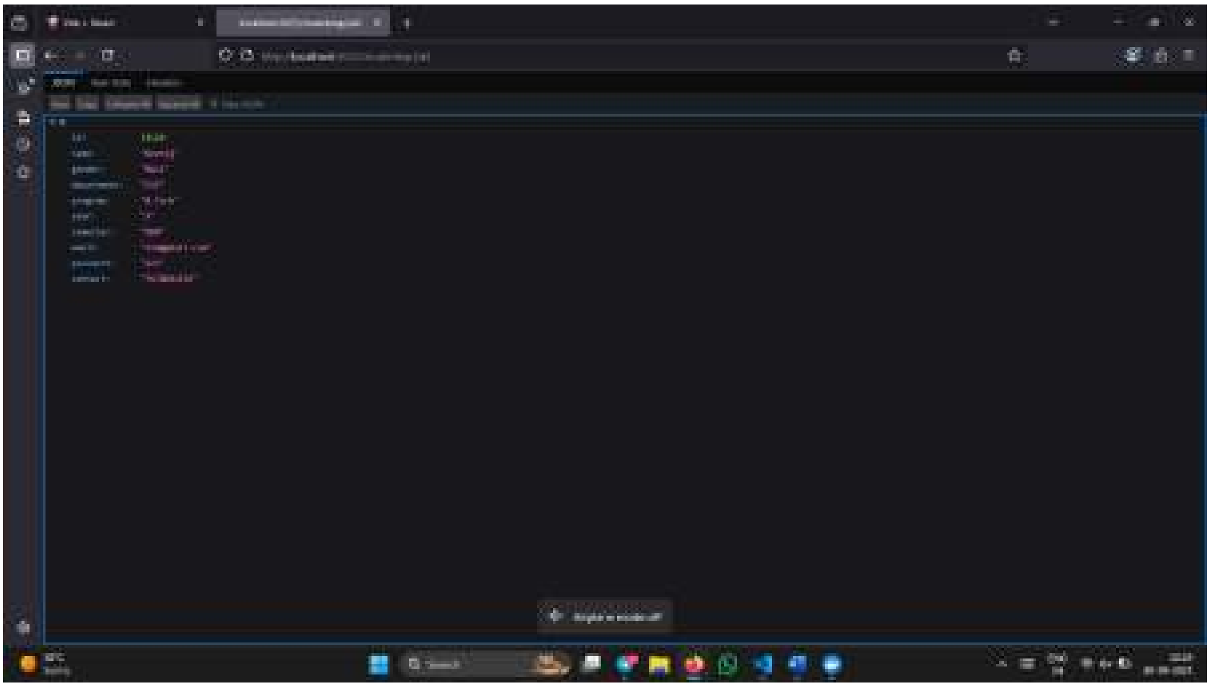
id	name	gender	department	program	year	semester	email	password	contact	Actions
13526	Neeraj	MALE	CSE	B.Tech	3	ODD	334@gmail.com	123	7670802250	Edit Delete

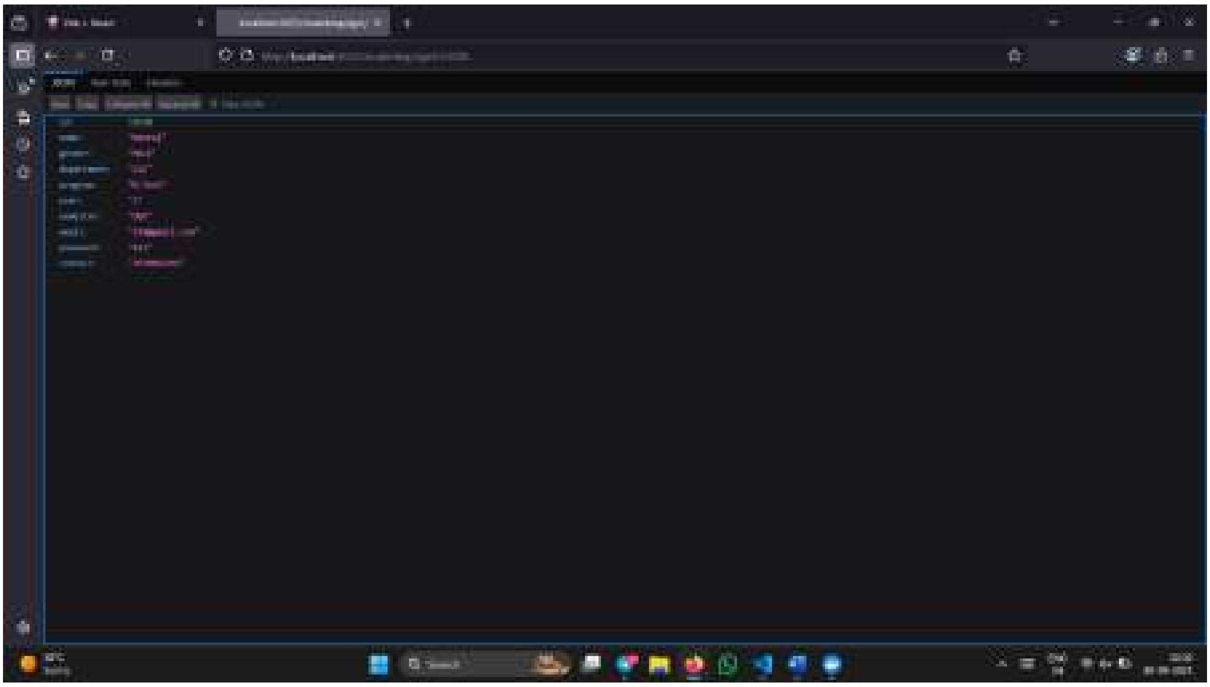


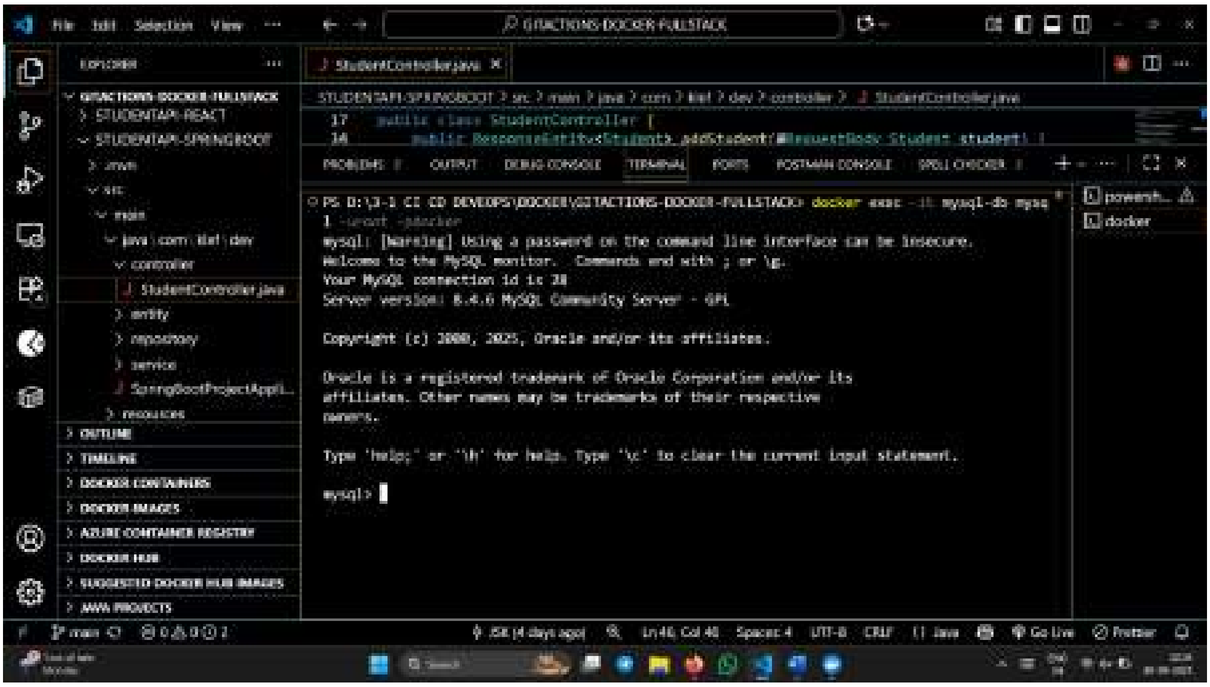
Docker Backend is Running



Docker Full Stack Deployment Demo with Git Actions







```
public class StudentController {
    public ResponseEntity<Student> addStudent(@RequestBody Student student) {
```

```
PS D:\3-1 CI CD DEVEOPS\DOCKER\GITACTIONS-DOCKER-FULLSTACK> docker exec -it mysql-db mysq
l -uroot -pdocker
mysql: [Warning] Using a password on the command line interface can be insecure.
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 28
Server version: 8.4.6 MySQL Community Server - GPL

Copyright (c) 2000, 2025, Oracle and/or its affiliates.

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affiliates. Other names may be trademarks of their respective
owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> 
```

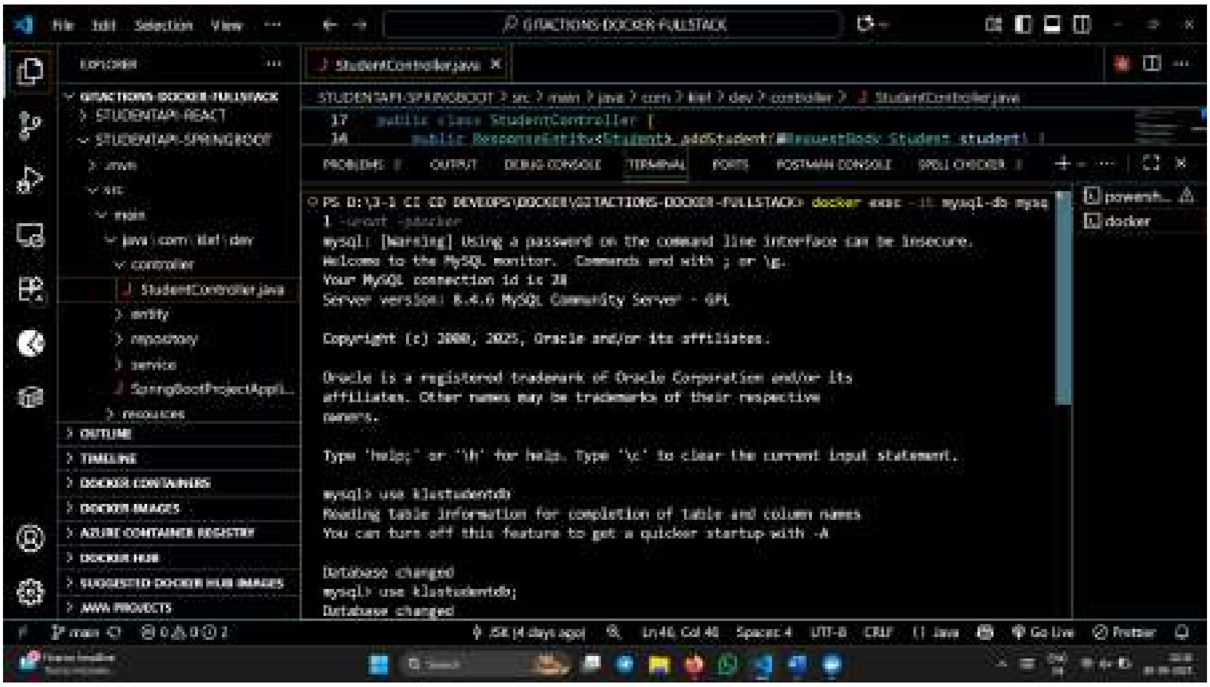

```
public class StudentController {
    public ResponseEntity<Student> addStudent(@RequestBody Student student) {
```

```
PS D:\3-1 CI CD DEVEOPS\DOCKER\GITACTIONS-DOCKER-FULLSTACK> docker exec -it mysql-db mysq
l -uroot -pdocker
mysql: [Warning] Using a password on the command line interface can be insecure.
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 28
Server version: 8.4.6 MySQL Community Server - GPL

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affiliates. Other names may be trademarks of their respective
owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> use klustudentdb
Reading table information for completion of table and column names
You can turn off this feature to get a quicker startup with -A

Database changed
mysql> use klustudentdb;
Database changed
```

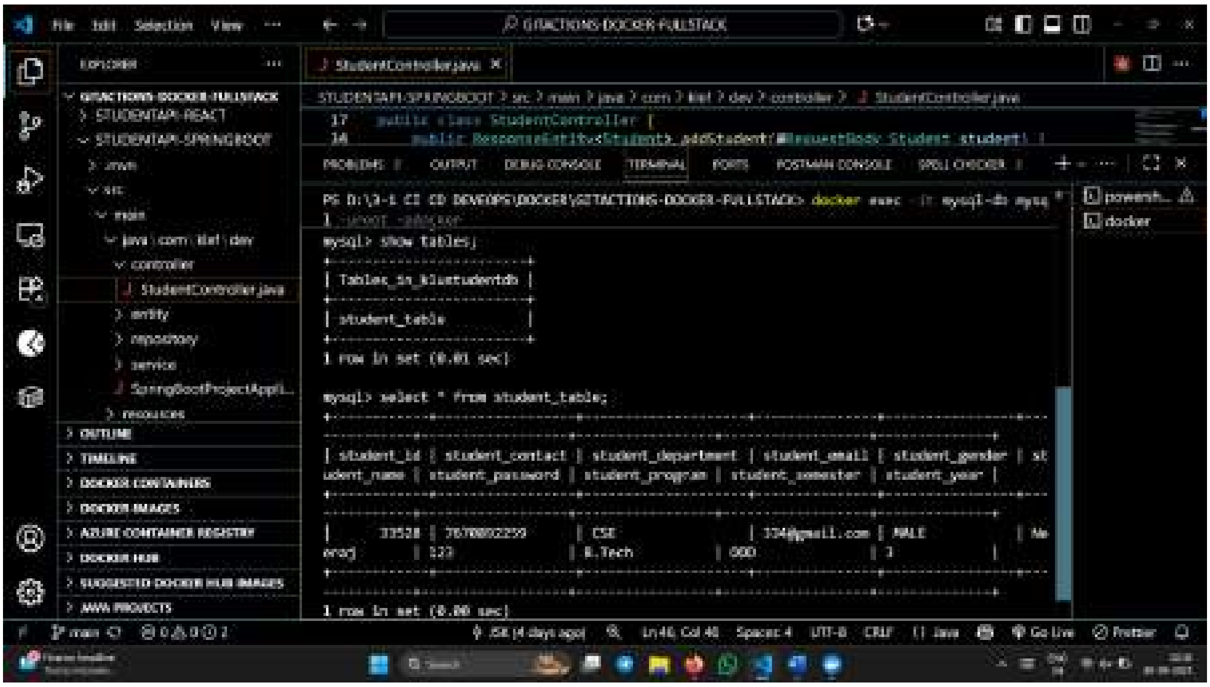

STUDENTAPI-SPRINGBOOT > src > main > java > com > klef > dev > controller > StudentController.java

```
public class StudentController {
    public ResponseEntity<Student> addStudent(@RequestBody Student student) {
```

```
PS D:\3-1 CI CD DEVOPS\DOCKER\GITACTIONS-DOCKER-FULLSTACK> docker exec -it mysql-db mysq
l -uroot -pdocker
mysql> show tables;
+------------------------+
| Tables_in_klustudentdb |
+------------------------+
| student_table          |
+------------------------+
1 row in set (0.01 sec)

mysql> select * from student_table;
+------------+-----------------+--------------------+---------------+----------------+---
-----------+------------------+-----------------+------------------+--------------+
| student_id | student_contact | student_department | student_email | student_gender | st
udent_name | student_password | student_program | student_semester | student_year |
+------------+-----------------+--------------------+---------------+----------------+---
-----------+------------------+-----------------+------------------+--------------+
|      33528 | 7670802259      | CSE                | 334@gmail.com | MALE           | Ne
eraj       | 123              | B.Tech          | ODD              | 3            |
+------------+-----------------+--------------------+---------------+----------------+---
-----------+------------------+-----------------+------------------+--------------+
1 row in set (0.00 sec)
```

docker-compose up -d

docker-compose down -v

docker logs -f containername