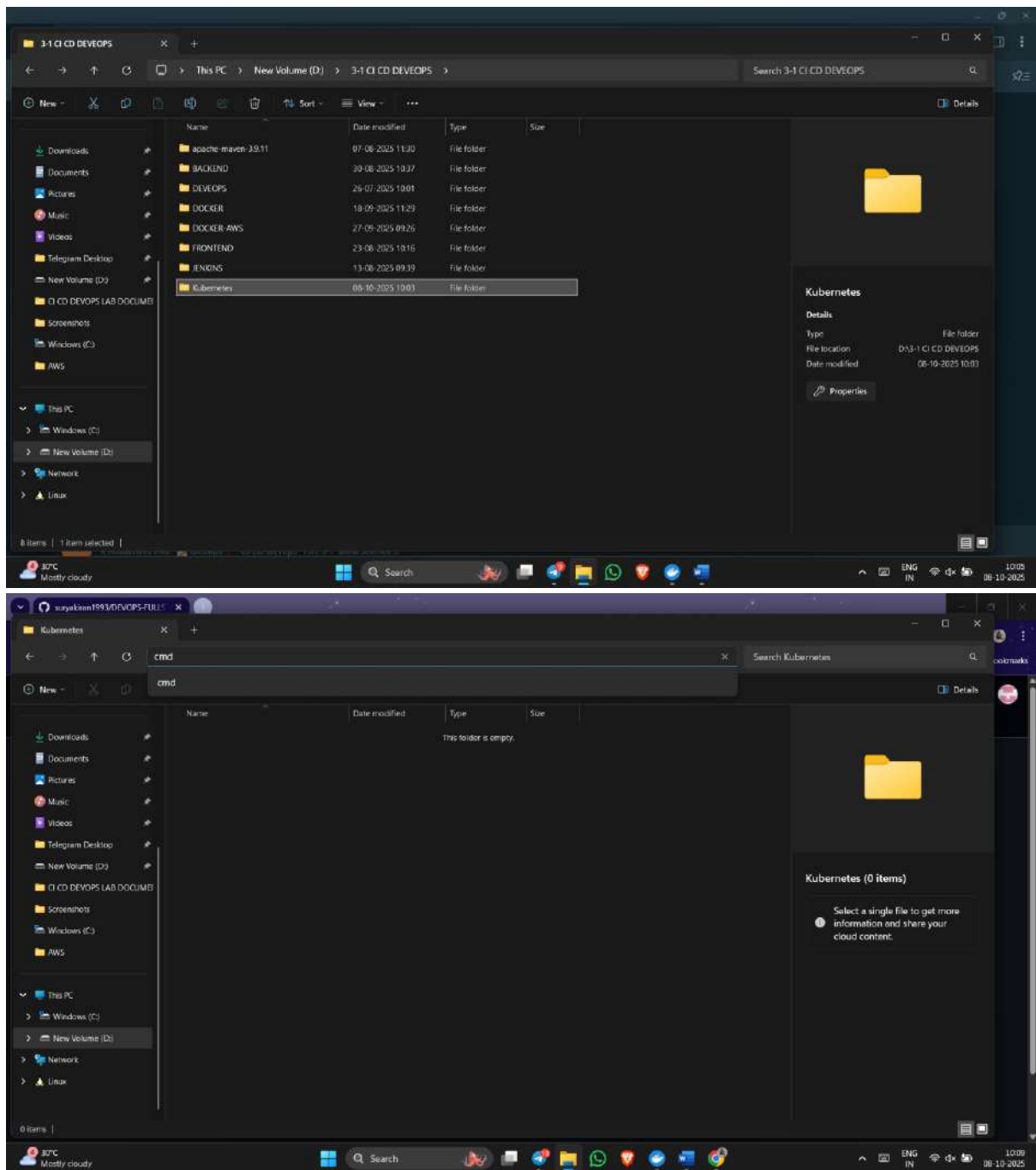
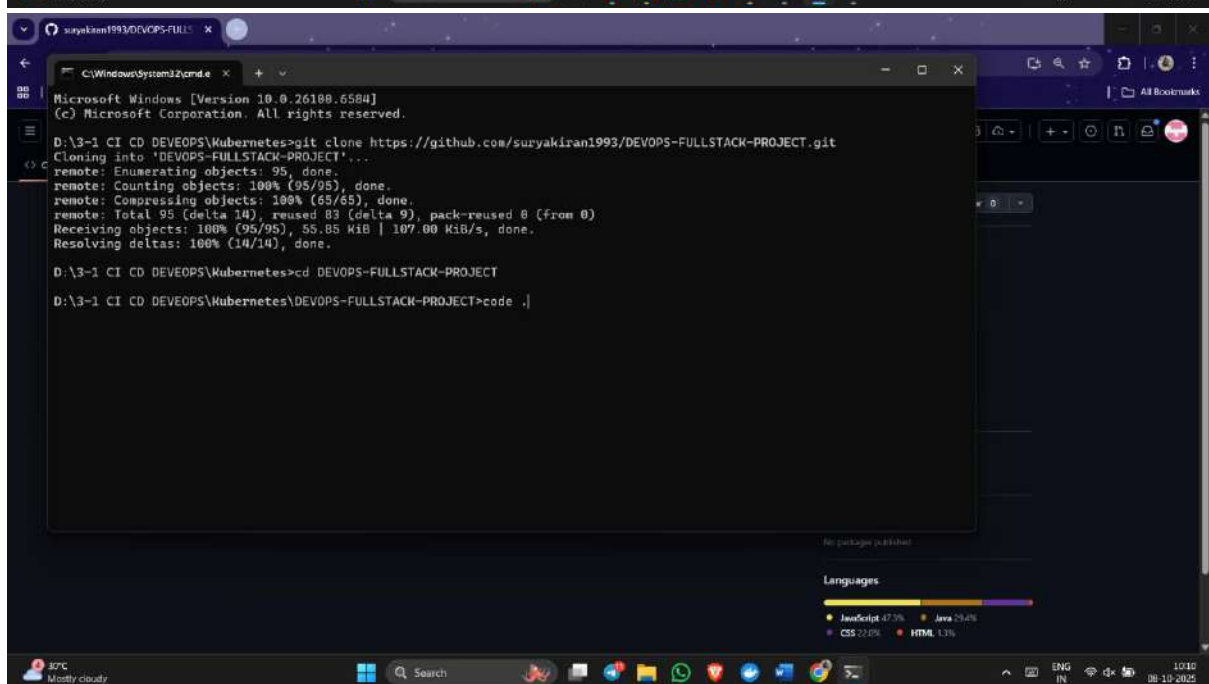
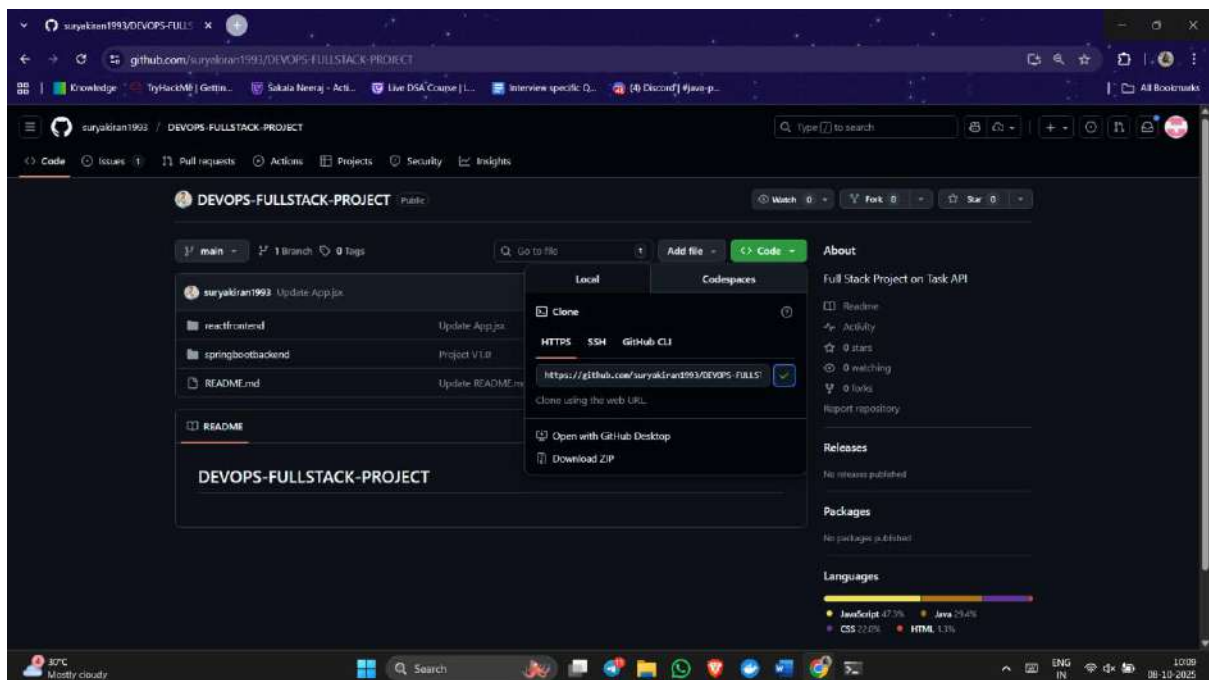
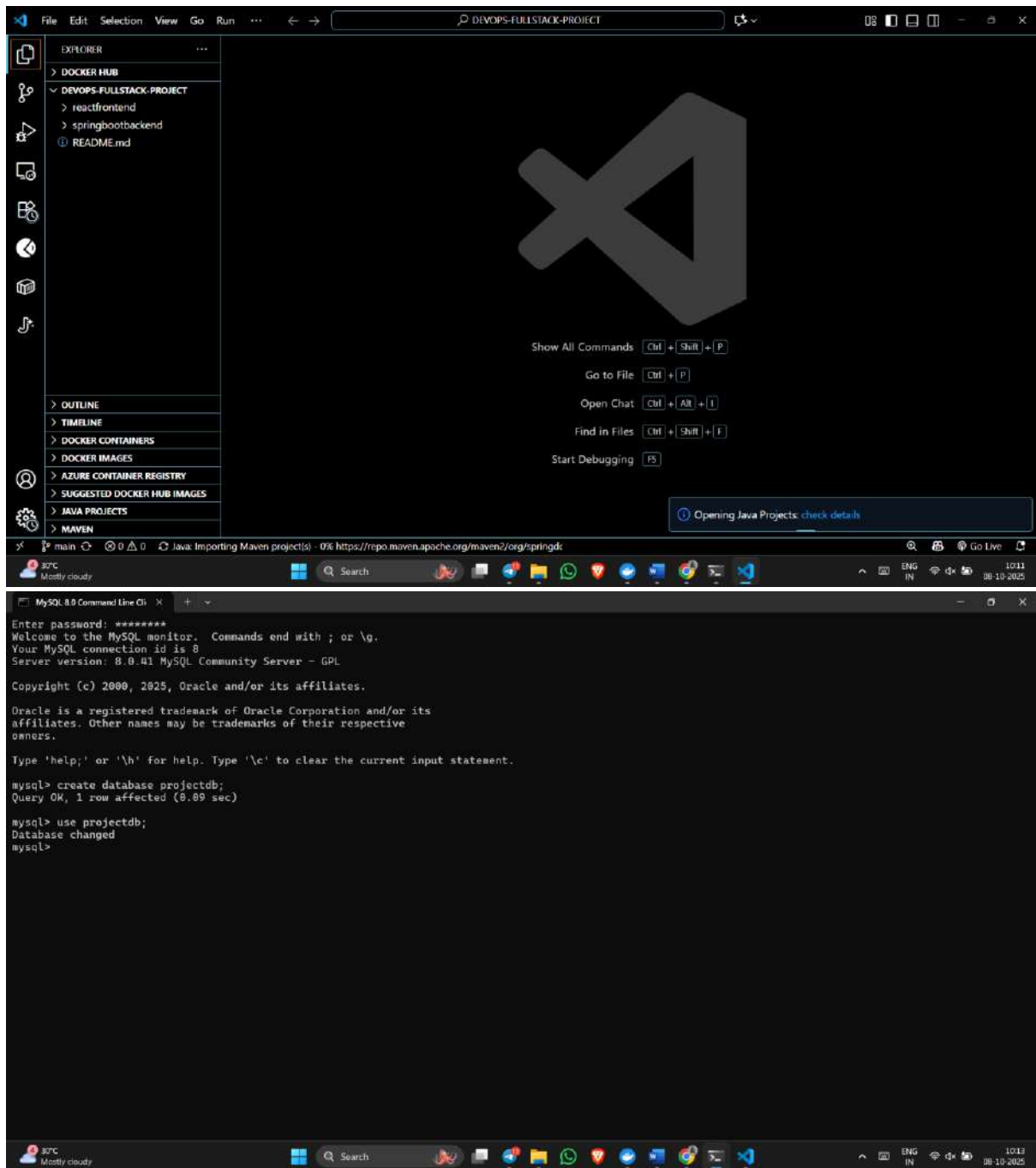
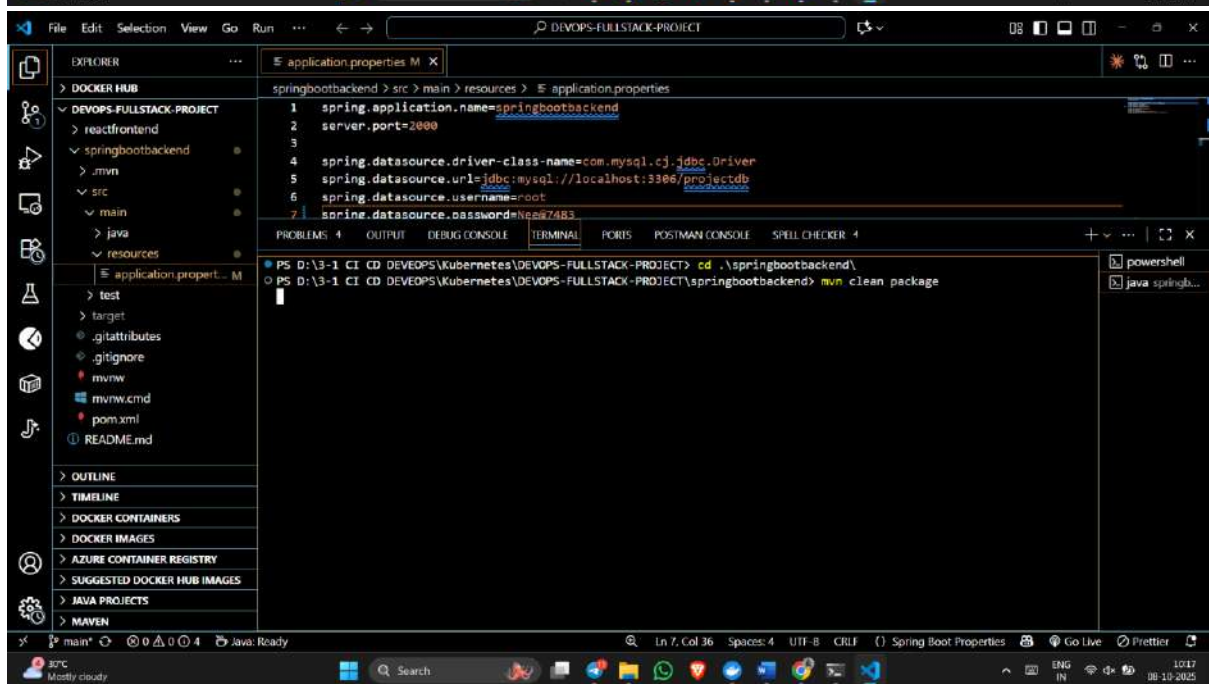
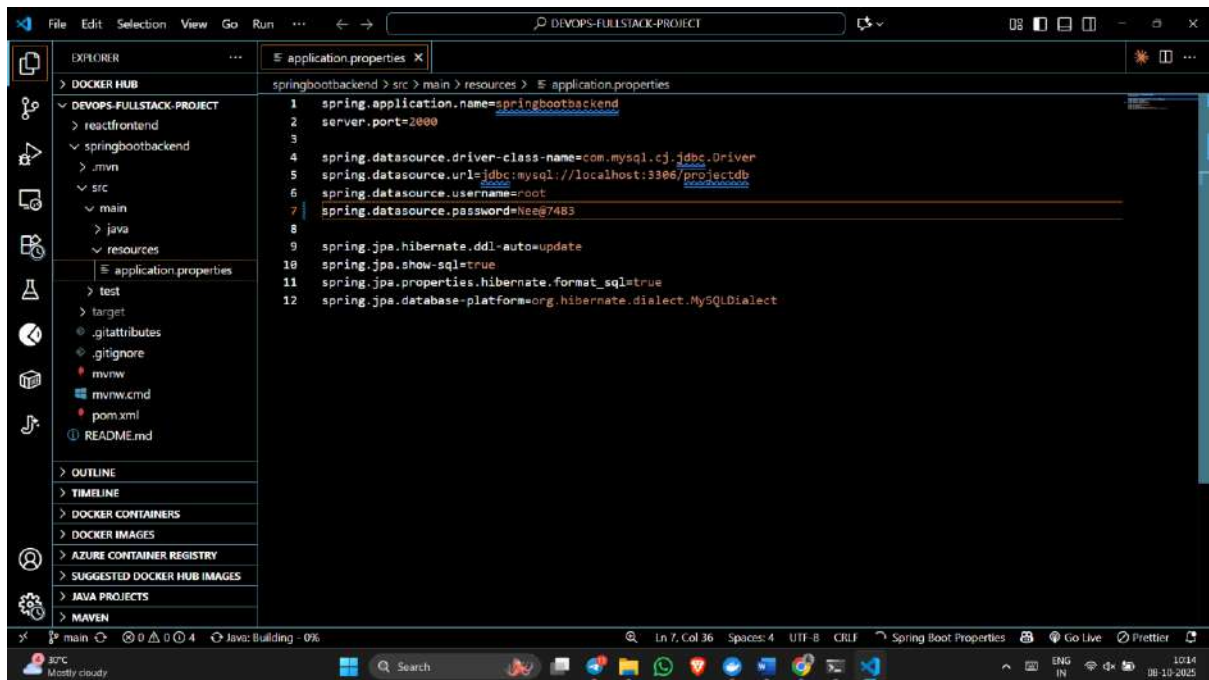


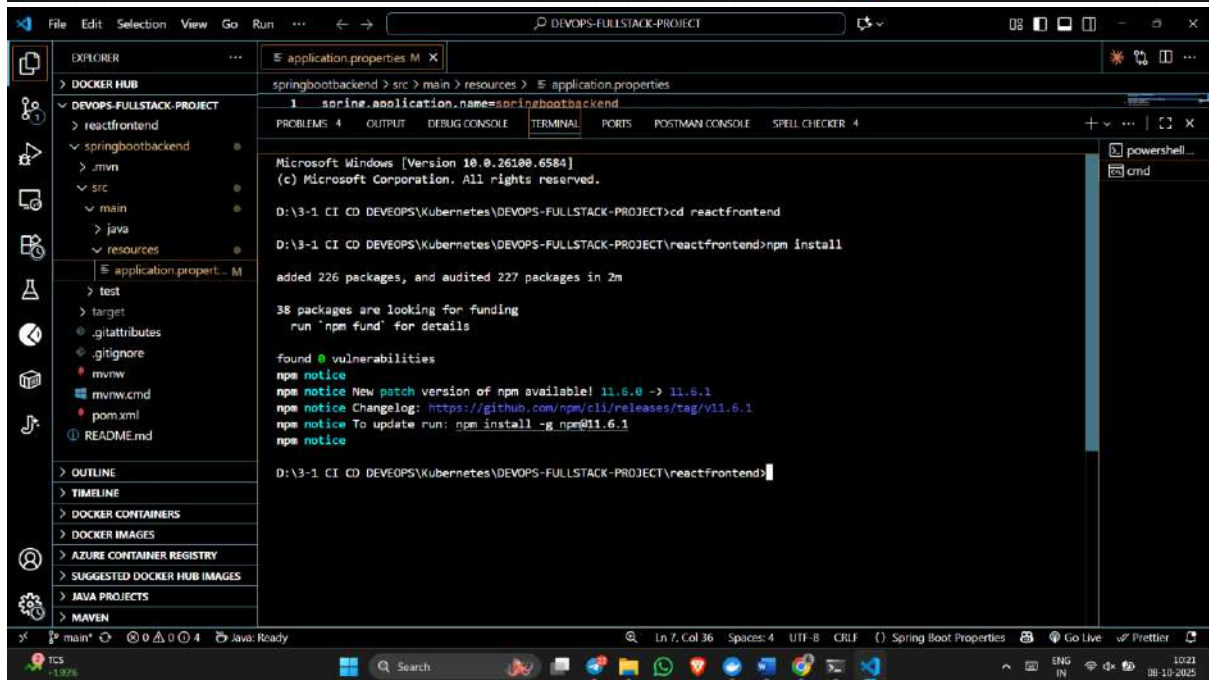
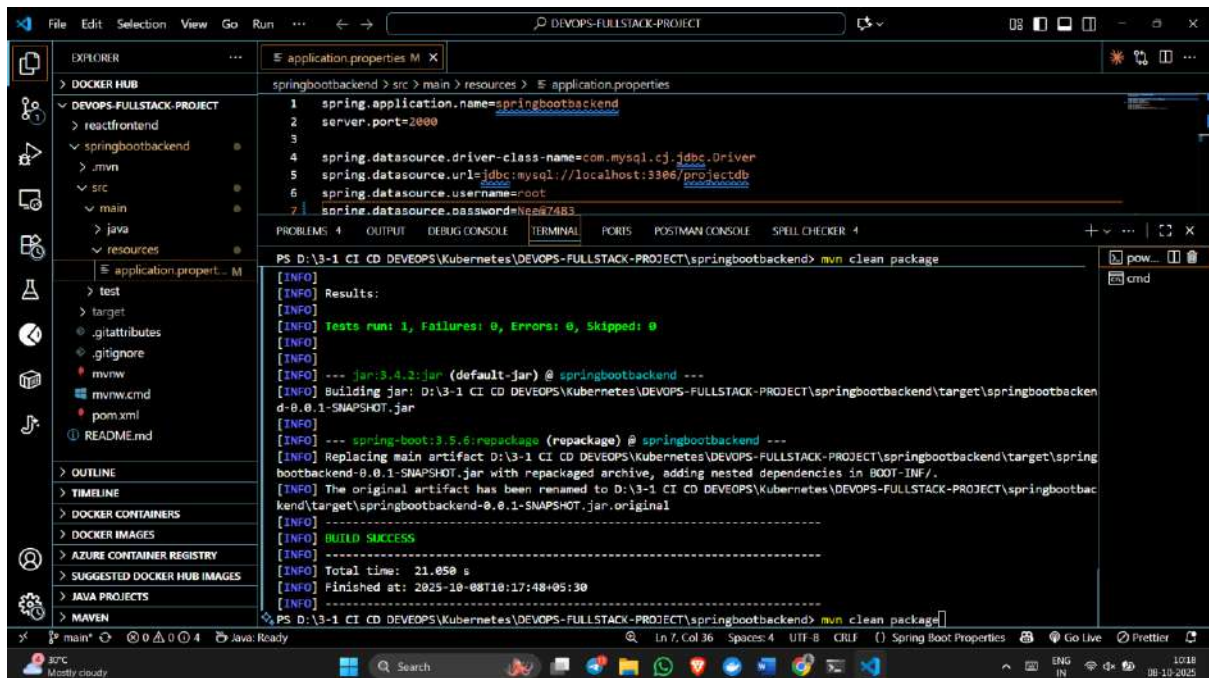
LAB 12











File Edit Selection View Go Run ... DEVOPS-FULLSTACK-PROJECT

EXPLORER ... application.properties M X

DOCKERS HUB

DEVOPS-FULLSTACK-PROJECT

reactfrontent

springbootbackend

mvnw

src

main

java

resources

application.properties M

test

target

.gitattributes

.gitignore

mvnw

mvnw.cmd

pom.xml

README.md

OUTLINE

TIMELINE

DOCKERS CONTAINERS

DOCKERS IMAGES

AZURE CONTAINER REGISTRY

SUGGESTED DOCKERS HUB IMAGES

JAVA PROJECTS

MAVEN

springbootbackend > src > main > resources > application.properties

```
1 spring.application.name=springbootbackend
```

PROBLEMS 4 OUTPUT DEBUG CONSOLE TERMINAL PORTS POSTMAN CONSOLE SPELL CHECKER 4

PS D:\3-1 CI CD DEVOPS\Kubernetes\DEVOPS-FULLSTACK-PROJECT\springbootbackend> mvnw clean package

[INFO]

PS D:\3-1 CI CD DEVOPS\Kubernetes\DEVOPS-FULLSTACK-PROJECT\springbootbackend> cd .\target\

PS D:\3-1 CI CD DEVOPS\Kubernetes\DEVOPS-FULLSTACK-PROJECT\springbootbackend\target> java -jar .\springbootbackend-0.0.1-SNAPSHOT.jar

Spring Boot (v3.5.6)

2025-10-08T18:48:32.119+05:30 INFO 4108 --- [springbootbackend] [main] c.klef.dev.SpringbootbackendApplication : Starting SpringbootbackendApplication v0.0.1-SNAPSHOT using Java 21.0.6 with PID 4108 (D:\3-1 CI CD DEVOPS\Kubernetes\DEVOPS-FULLSTACK-PROJECT\springbootbackend\target\springbootbackend-0.0.1-SNAPSHOT.jar started by sakal in D:\3-1 CI CD DEVOPS\Kubernetes\DEVOPS-FULLSTACK-PROJECT\springbootbackend\target)

2025-10-08T18:48:32.126+05:30 INFO 4108 --- [springbootbackend] [main] c.klef.dev.SpringbootbackendApplication : No active profile set, falling back to 1 default profile: "default"

2025-10-08T18:48:33.274+05:30 INFO 4108 --- [springbootbackend] [main] .s.d.r.c.RepositoryConfigurationDelegate : Bootstrapping Spring Data JPA repositories in DEFAULT mode.

2025-10-08T18:48:33.572+05:30 INFO 4108 --- [springbootbackend] [main] .s.d.r.c.RepositoryConfigurationDelegate : Finished Spring Data repository scanning in 84 ms. Found 1 JPA repository interface.

2025-10-08T18:48:34.077+05:30 INFO 4108 --- [springbootbackend] [main] o.s.b.w.embedded.tomcat.TomcatWebServer : Tomcat initialized with port 2000 (http)

2025-10-08T18:48:34.091+05:30 INFO 4108 --- [springbootbackend] [main] o.apache.catalina.core.StandardService : Starting service [Tomcat]

File Edit Selection View Go Run ... DEVOPS-FULLSTACK-PROJECT

EXPLORER ... application.properties M X

DOCKERS HUB

DEVOPS-FULLSTACK-PROJECT

reactfrontent

springbootbackend

mvnw

src

main

java

resources

application.properties M

test

target

.gitattributes

.gitignore

mvnw

mvnw.cmd

pom.xml

README.md

OUTLINE

TIMELINE

DOCKERS CONTAINERS

DOCKERS IMAGES

AZURE CONTAINER REGISTRY

SUGGESTED DOCKERS HUB IMAGES

JAVA PROJECTS

MAVEN

springbootbackend > src > main > resources > application.properties

```
1 spring.application.name=springbootbackend
```

PROBLEMS 4 OUTPUT DEBUG CONSOLE TERMINAL PORTS POSTMAN CONSOLE SPELL CHECKER 4

PS D:\3-1 CI CD DEVOPS\Kubernetes\DEVOPS-FULLSTACK-PROJECT\springbootbackend\target> java -jar .\springbootbackend-0.0.1-SNAPSHOT.jar

2025-10-08T18:48:35.421+05:30 INFO 4108 --- [springbootbackend] [main] org.hibernate.orm.connections.pooling : HHH10001005: Database info: Database JDBC URL [Connecting through datasource 'HikariDataSource (HikariPool-1)'] Database driver: undefined/unknown Database version: 8.0.41 Autocommit mode: undefined/unknown Isolation level: undefined/unknown Minimum pool size: undefined/unknown Maximum pool size: undefined/unknown

2025-10-08T18:48:36.142+05:30 INFO 4108 --- [springbootbackend] [main] o.h.e.t.j.p.i.JtaPlatformInitiator : HHH000489: No JTA platform available (set 'hibernate.transaction.jta.platform' to enable JTA platform integration)

2025-10-08T18:48:36.194+05:30 INFO 4108 --- [springbootbackend] [main] j.LocalContainerEntityManagerFactoryBean : Initialized JPA EntityManagerFactory for persistence unit 'default'

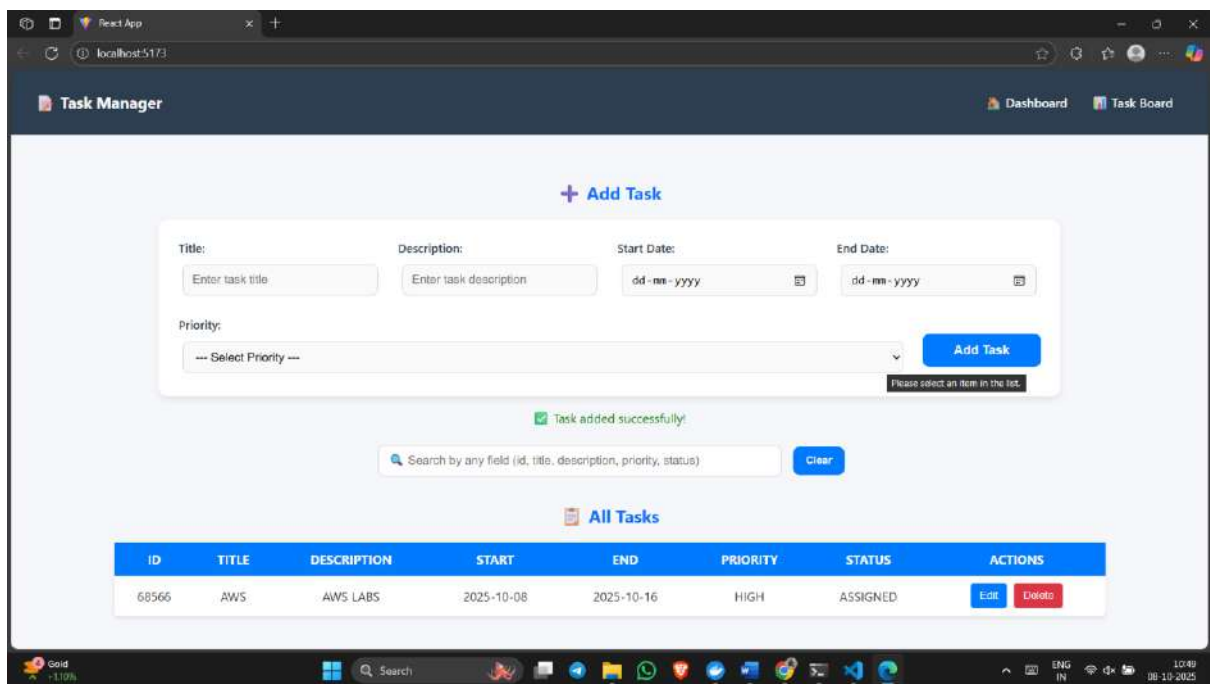
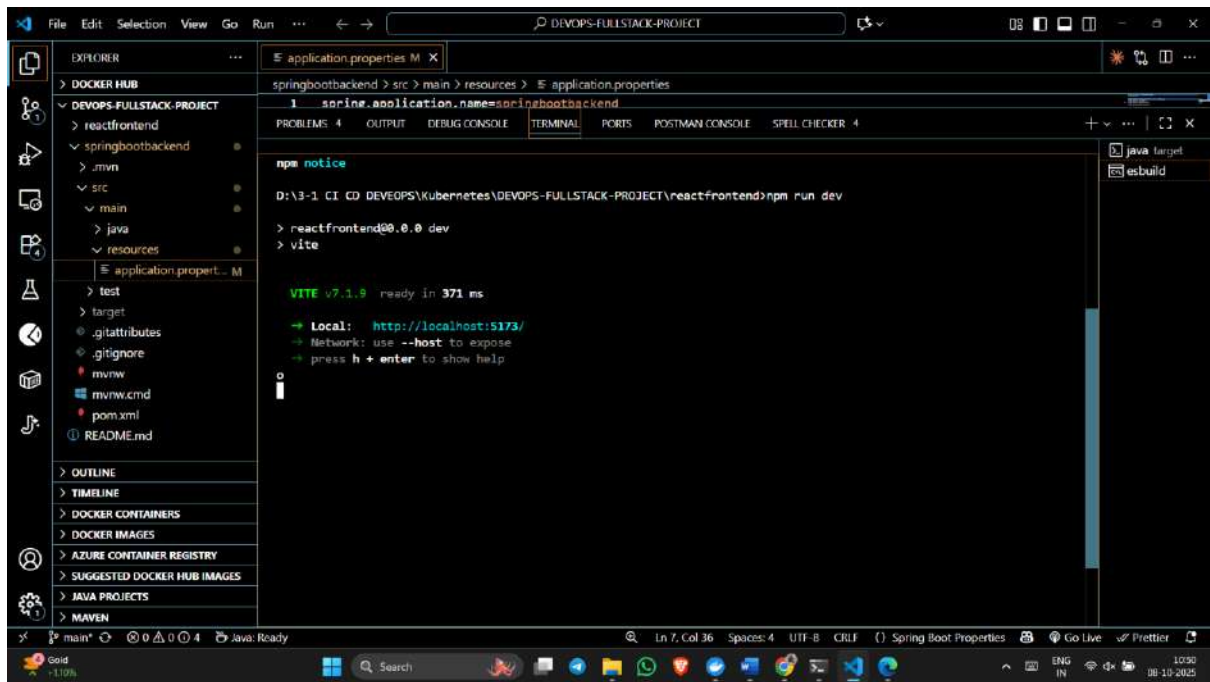
2025-10-08T18:48:36.785+05:30 WARN 4108 --- [springbootbackend] [main] JpaBaseConfiguration\$JpaWebConfiguration : spring.jpa.open-in-view is enabled by default. Therefore, database queries may be performed during view rendering. Explicitly configure spring.jpa.open-in-view to disable this warning

2025-10-08T18:48:36.883+05:30 INFO 4108 --- [springbootbackend] [main] o.s.v.b.OptionalValidatorFactoryBean : Failed to set up a Bean Validation provider: jakarta.validation.NoProviderFoundException: Unable to create a Configuration, because no Jakarta Bean Validation provider could be found. Add a provider like Hibernate Validator (RI) to your classpath.

2025-10-08T18:48:37.539+05:30 INFO 4108 --- [springbootbackend] [main] o.s.b.w.embedded.tomcat.TomcatWebServer : Tomcat started on port 2000 (http) with context path '/'

2025-10-08T18:48:37.571+05:30 INFO 4108 --- [springbootbackend] [main] c.klef.dev.SpringbootbackendApplication : Started SpringbootbackendApplication in 5.978 seconds (process running for 6.537)

Project Backend is Running Successfully ...



Task Manager

DashboardTask Board

+ Add Task

Title:
Enter task title

Description:
Enter task description

Start Date:
dd-mm-yyyy

End Date:
dd-mm-yyyy

Priority:
--- Select Priority ---

Add Task

Task added successfully!

Search by any field (id, title, description, priority, status)

Clear

All Tasks

ID	TITLE	DESCRIPTION	START	END	PRIORITY	STATUS	ACTIONS
68566	AWS	AWS LABS	2025-10-08	2025-10-16	HIGH	ASSIGNED	<div>EditDelete</div>
82389	JENKINS	JENKINS	2025-10-09	2025-10-10	MEDIUM	ASSIGNED	<div>EditDelete</div>

Task Manager

DashboardTask Board

+ Add Task

Title:
Enter task title

Description:
Enter task description

Start Date:
dd-mm-yyyy

End Date:
dd-mm-yyyy

Priority:
--- Select Priority ---

Add Task

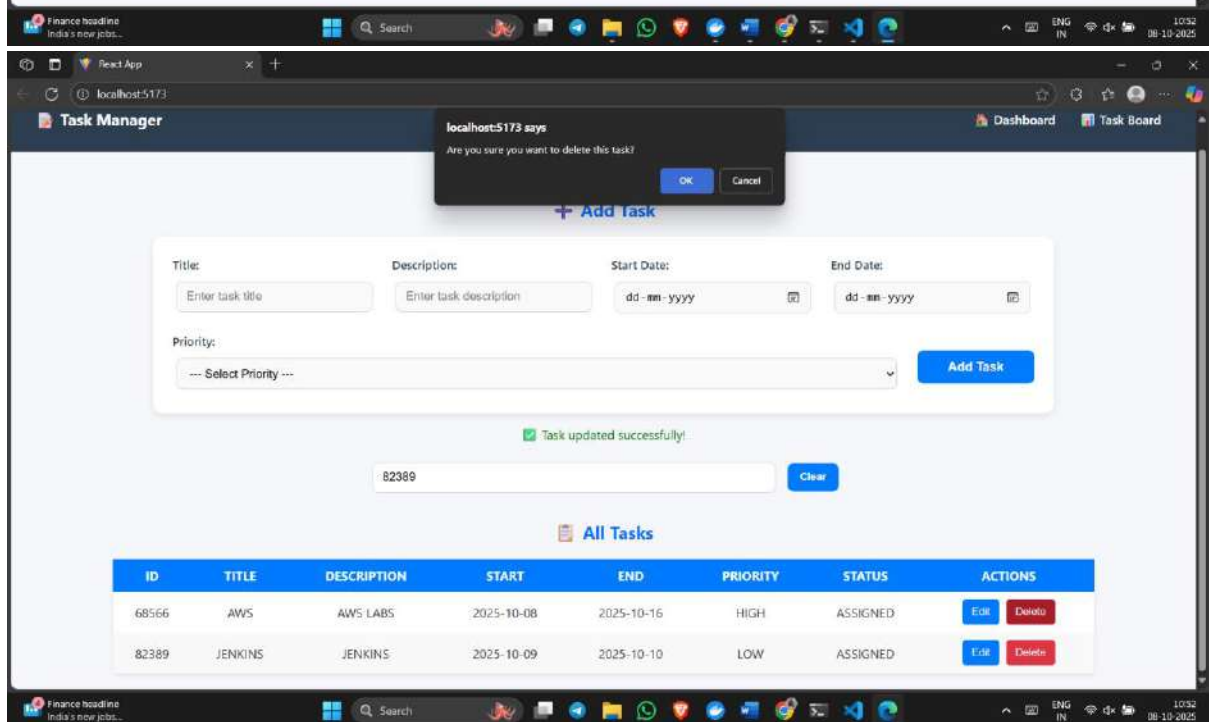
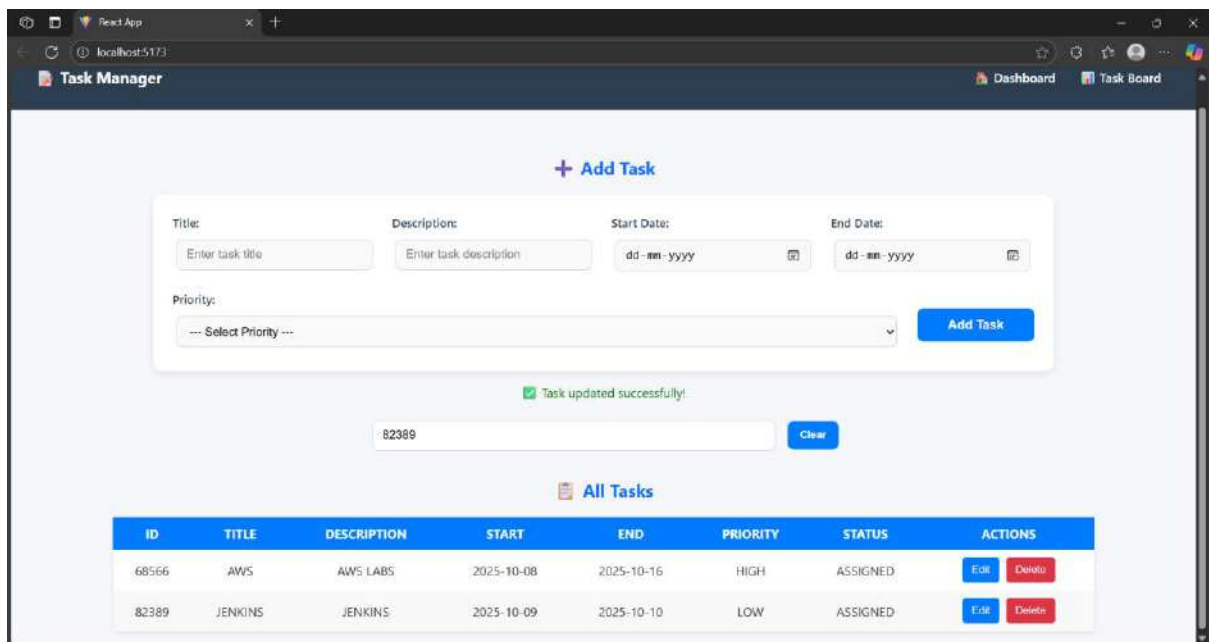
Task added successfully!

82389

Clear

All Tasks

ID	TITLE	DESCRIPTION	START	END	PRIORITY	STATUS	ACTIONS
82389	JENKINS	JENKINS	2025-10-09	2025-10-10	MEDIUM	ASSIGNED	<div>EditDelete</div>



Task Manager

DashboardTask Board

+ Add Task

Title:

Enter task title

Description:

Enter task description

Start Date:

dd-mm-yyyy

End Date:

dd-mm-yyyy

Priority:

--- Select Priority ---

Add Task

Task deleted successfully!

82389

Clear

All Tasks

ID	TITLE	DESCRIPTION	START	END	PRIORITY	STATUS	ACTIONS
82389	JENKINS	JENKINS	2025-10-09	2025-10-10	LOW	ASSIGNED	<div>EditDelete</div>

Task Board

ASSIGNED

aws

AWS LABS

Priority: HIGH

Start: 2025-10-09

End: 2025-10-20

Start

JENKINS

JENKINS

Priority: LOW

Start: 2025-10-09

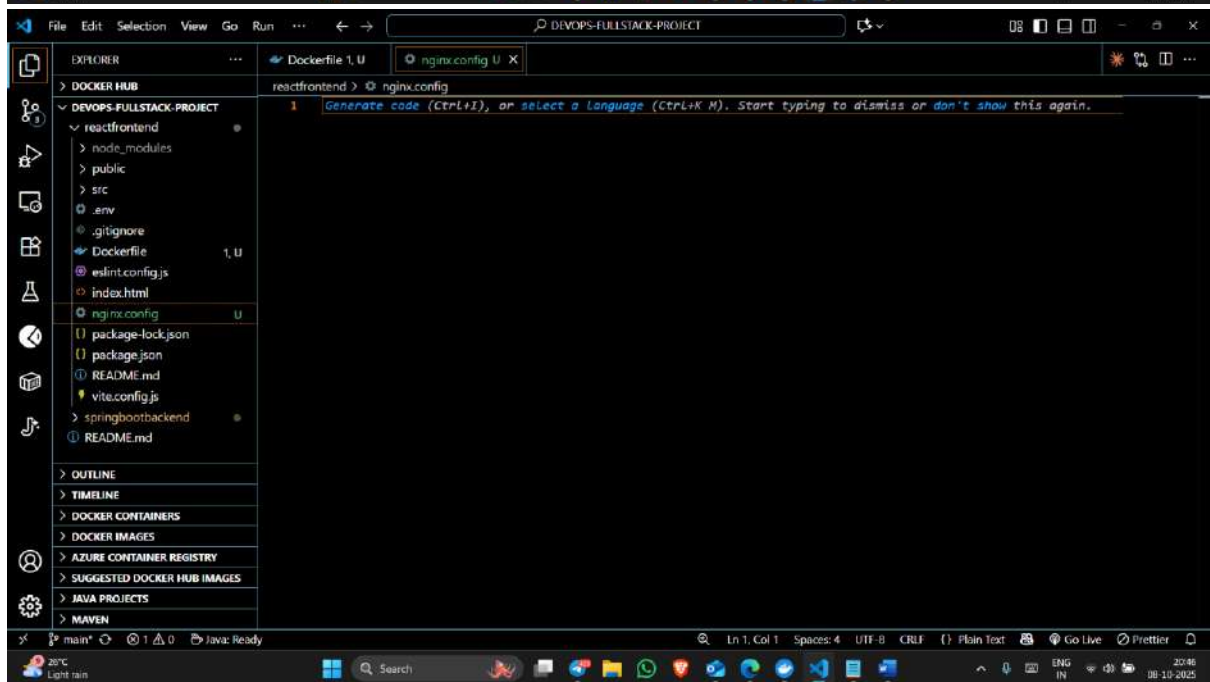
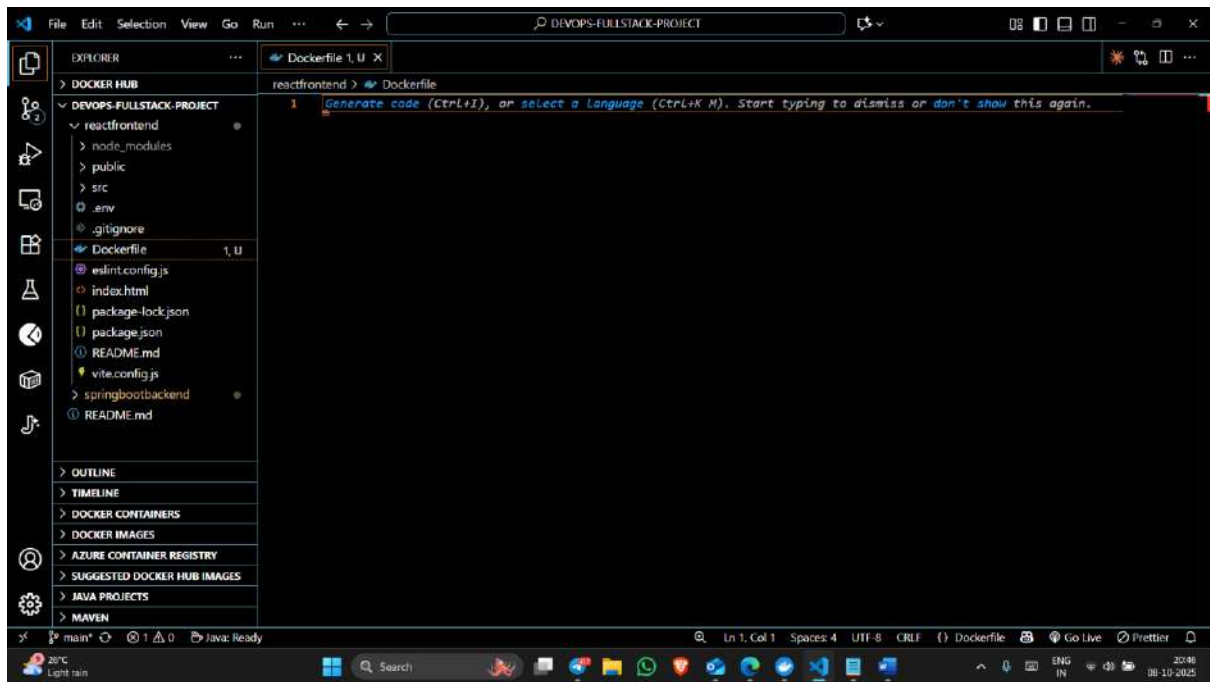
End: 2025-10-10

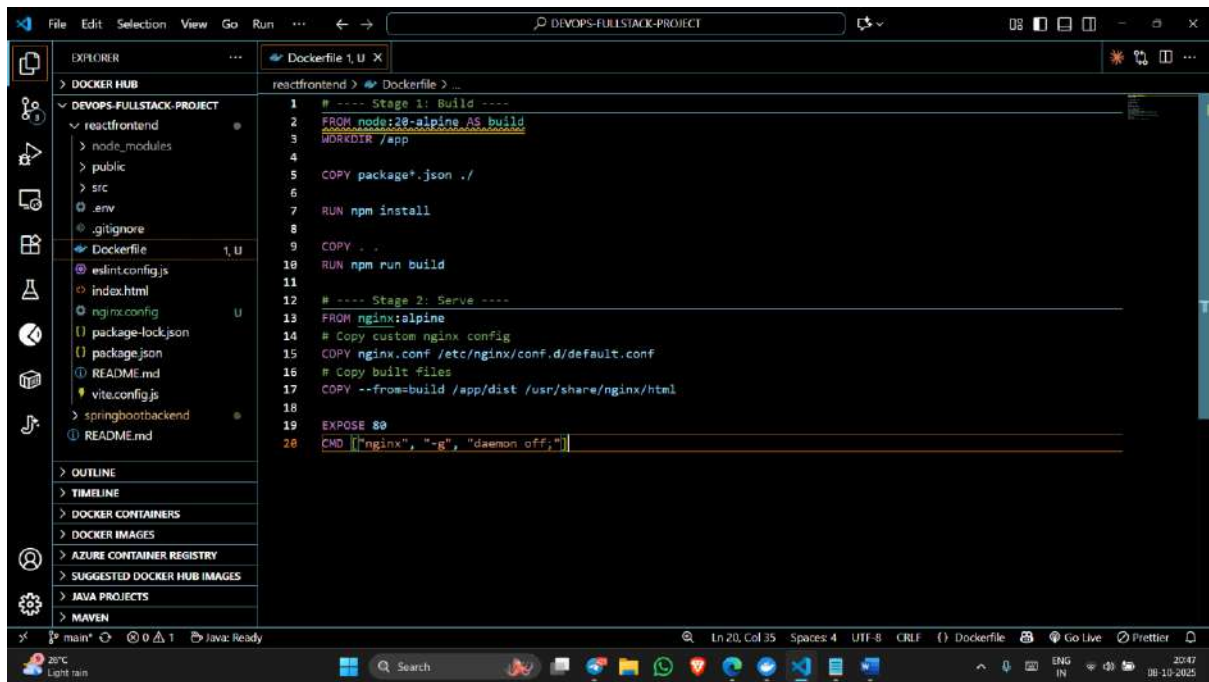
Start

PROGRESS

COMPLETED

REJECTED





---- Stage 1: Build ----

FROM node:20-alpine AS build

WORKDIR /app

COPY package*.json ./

RUN npm install

COPY . .

RUN npm run build

---- Stage 2: Serve ----

FROM nginx:alpine

Copy custom nginx config

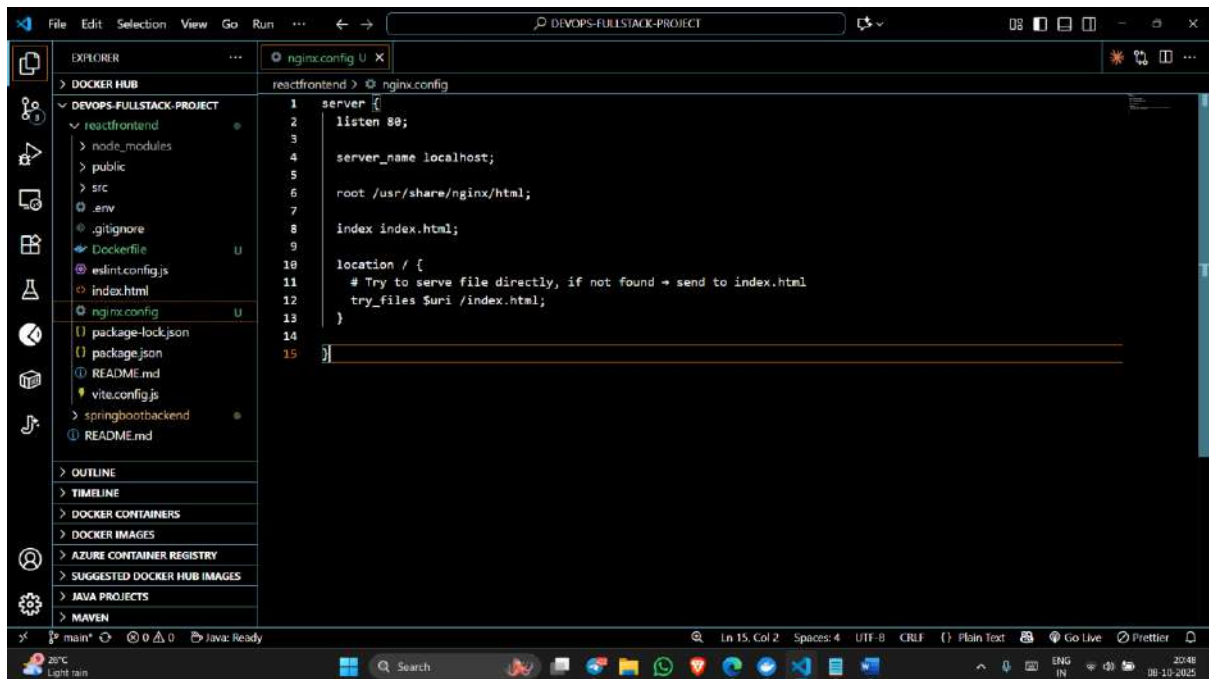
COPY nginx.conf /etc/nginx/conf.d/default.conf

Copy built files

COPY --from=build /app/dist /usr/share/nginx/html

EXPOSE 80

CMD ["nginx", "-g", "daemon off;"]



```
server {
```

```
    listen 80;
```

```
    server_name localhost;
```

```
    root /usr/share/nginx/html;
```

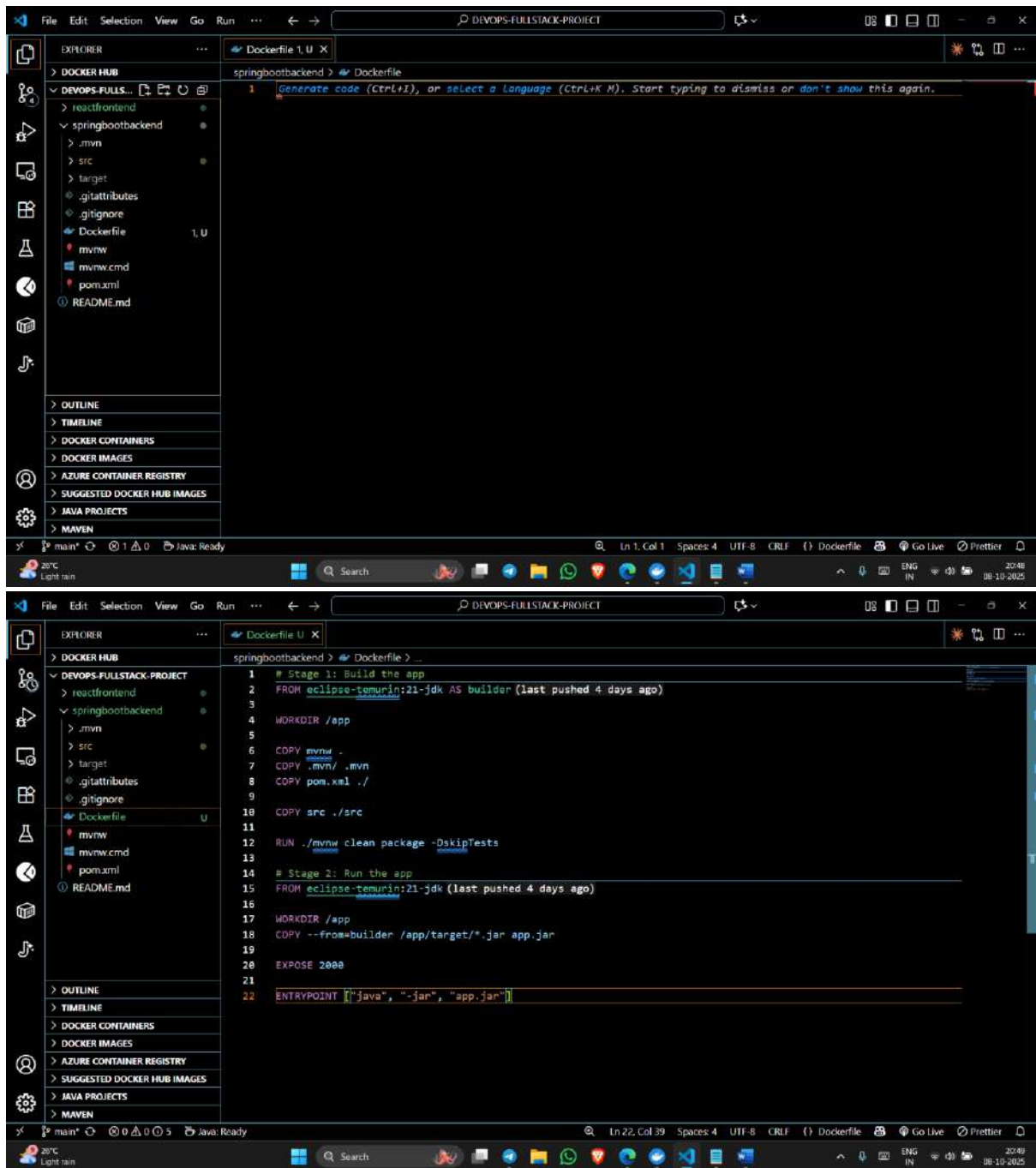
```
    index index.html;
```

```
    location / {
```

```
        # Try to serve file directly, if not found -> send to index.html
```

```
        try_files $uri /index.html;
```

```
    }
```

Stage 1: Build the app

FROM eclipse-temurin:21-jdk AS builder

WORKDIR /app

COPY mvnw .

COPY .mvn/ .mvn

COPY pom.xml ./

COPY src ./src

RUN ./mvnw clean package -DskipTests

Stage 2: Run the app

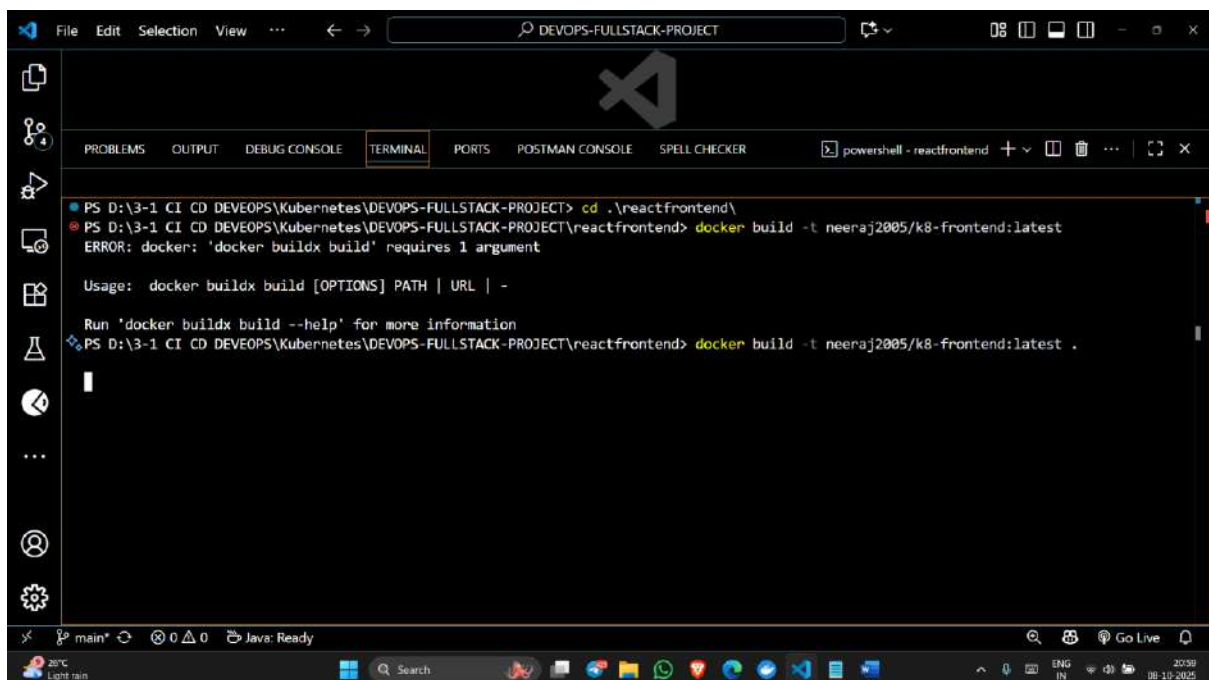
FROM eclipse-temurin:21-jdk

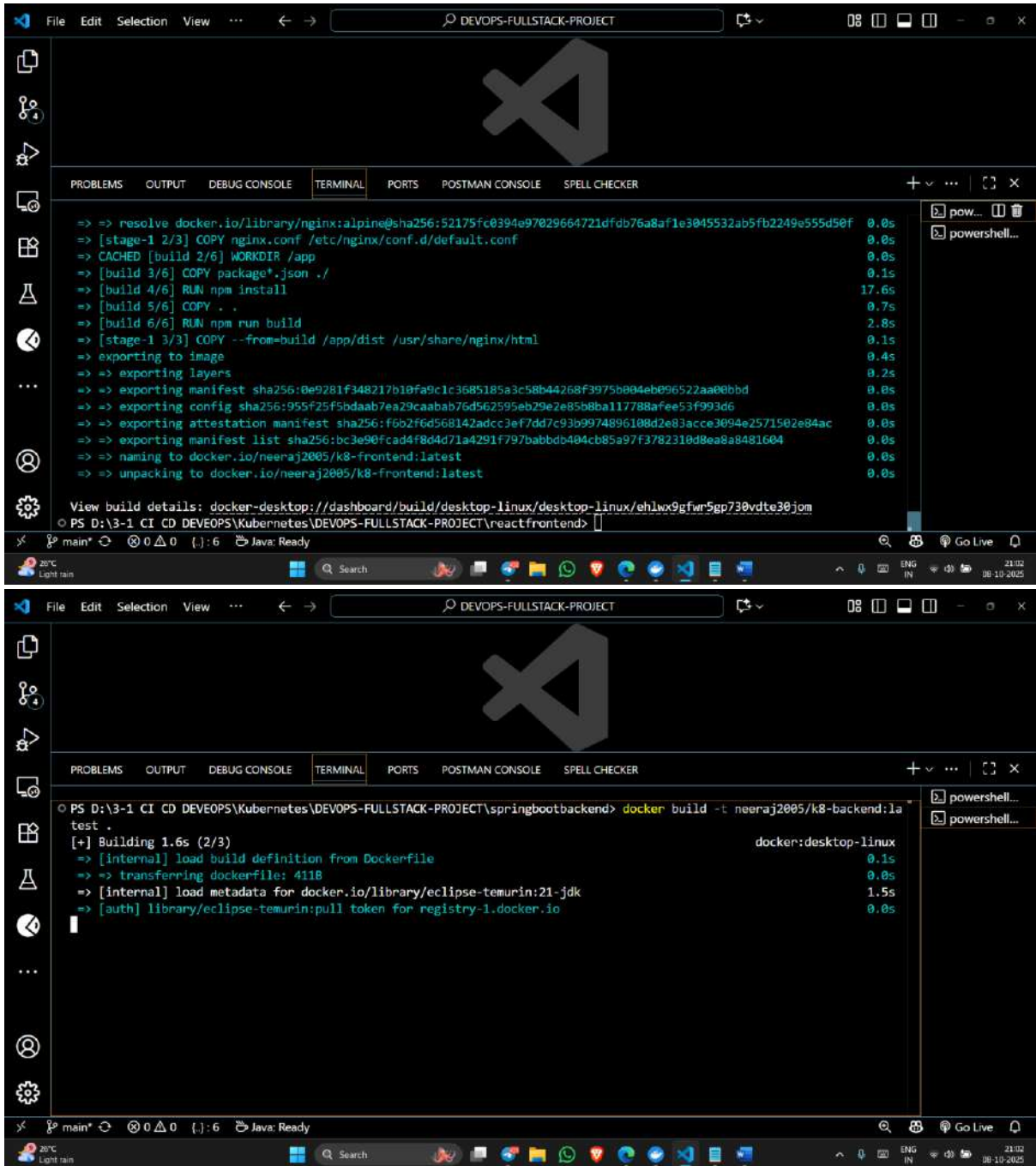
WORKDIR /app

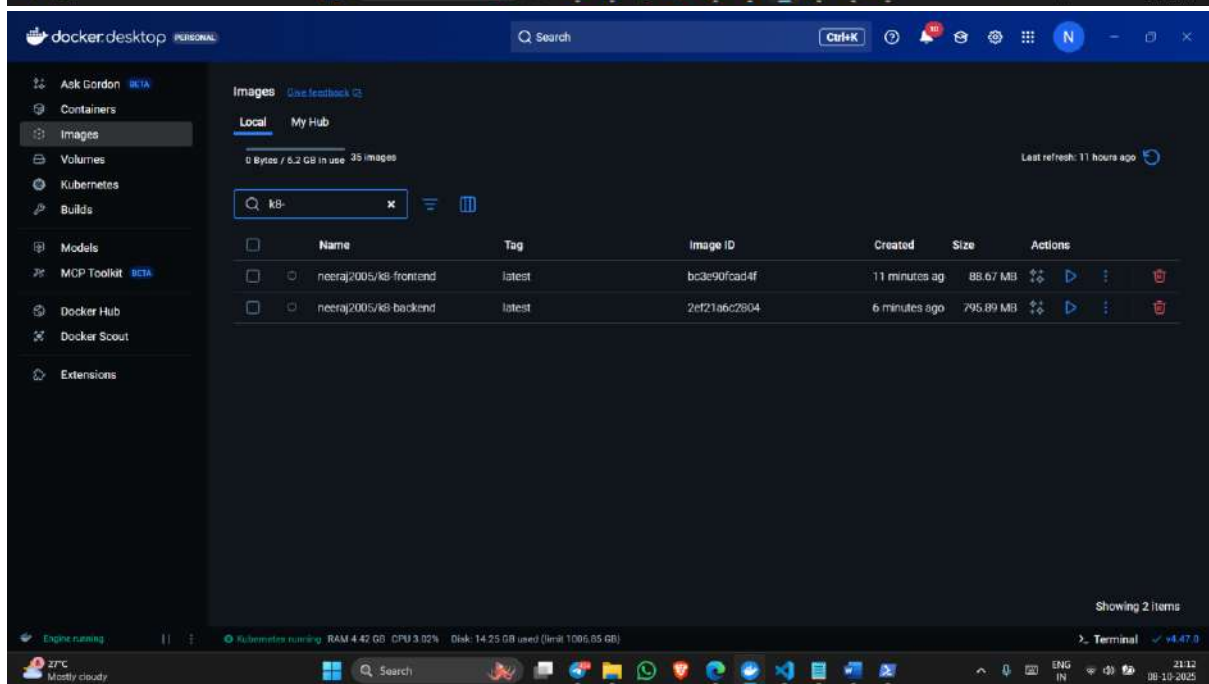
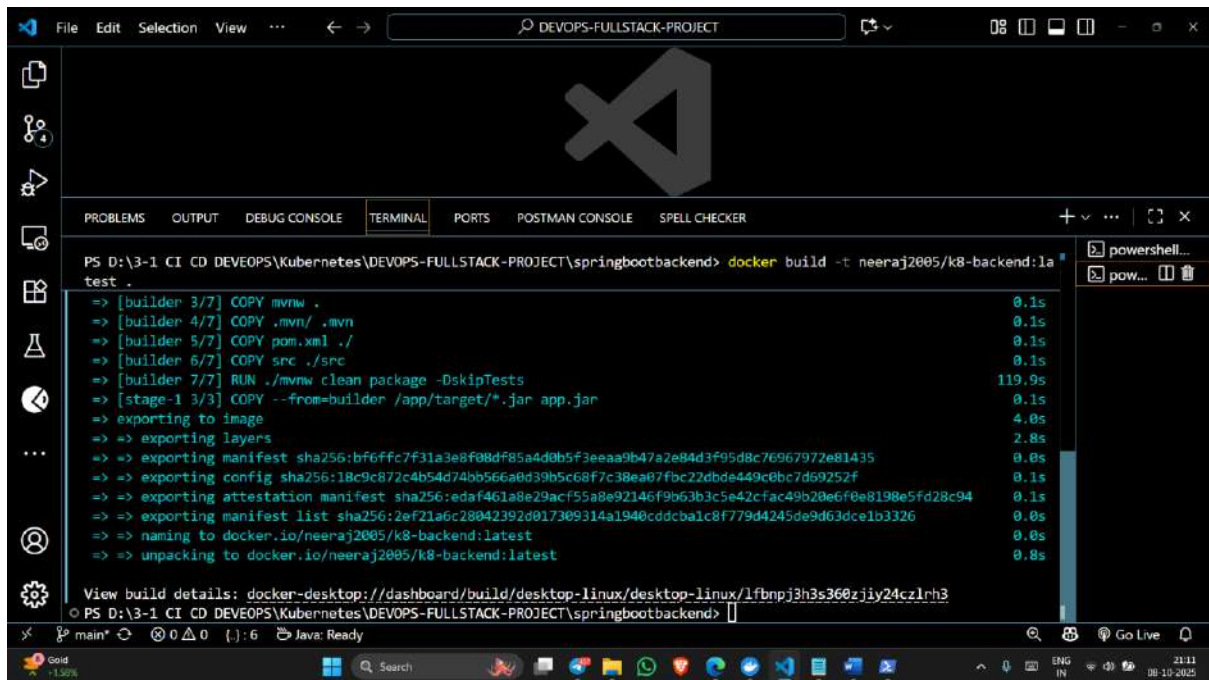
COPY --from=builder /app/target/*.jar app.jar

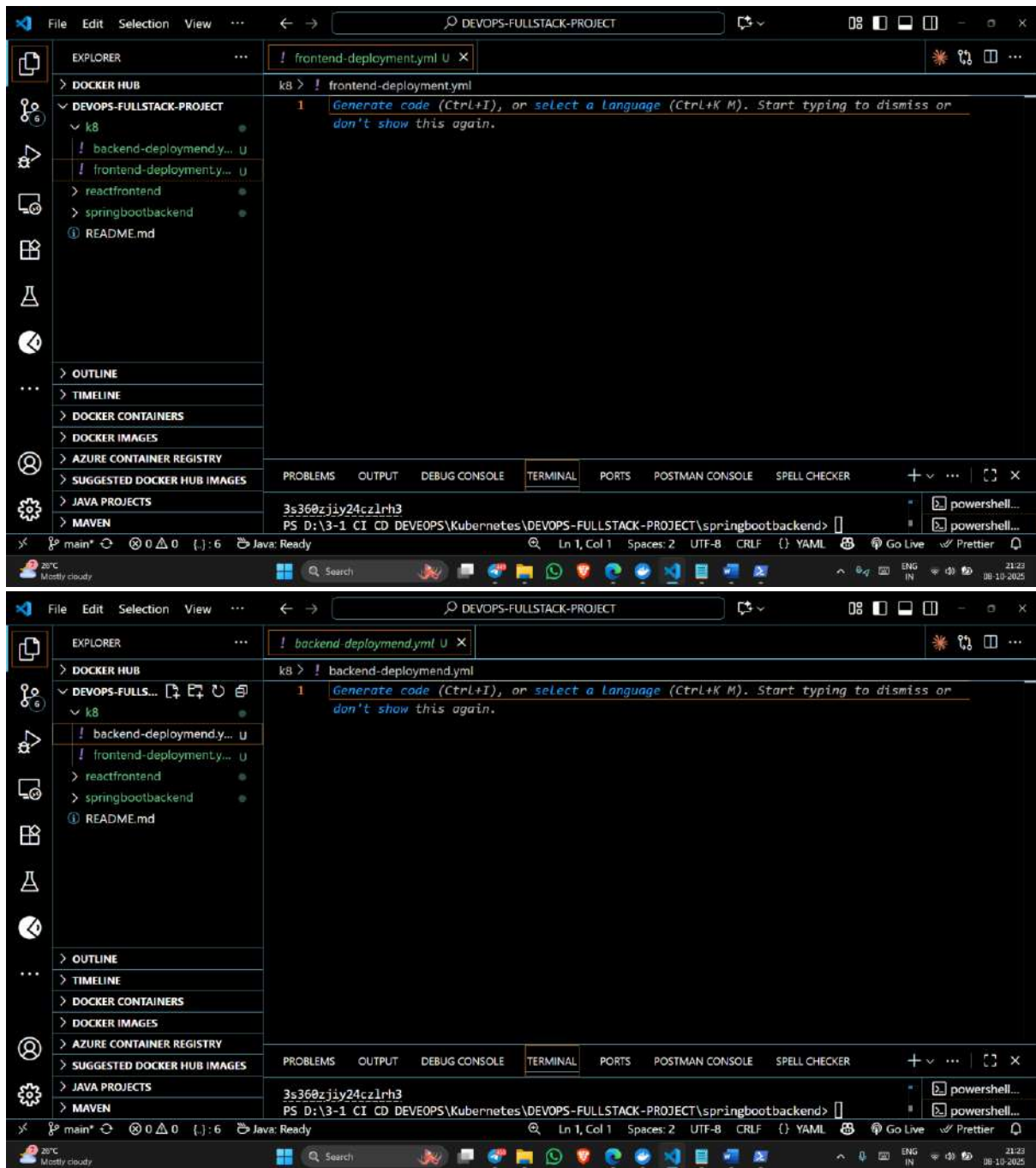
EXPOSE 2000

ENTRYPOINT ["java", "-jar", "app.jar"]










```
Command Prompt
Microsoft Windows [Version 10.0.26200.6899]
(c) Microsoft Corporation. All rights reserved.

C:\Users\sakal>kubectl config get-contexts
CURRENT NAME CLUSTER AUTHINFO NAMESPACE
* docker-desktop docker-desktop docker-desktop minikube default
minikube minikube minikube

C:\Users\sakal>kubectl config use-context
Set the current-context in a kubeconfig file.

Aliases:
use-context, use

Examples:
# Use the context for the minikube cluster
kubectl config use-context minikube

Usage:
kubectl config use-context CONTEXT_NAME [options]

Use "kubectl options" for a list of global command-line options (applies to all commands).
error: Unexpected args: []

C:\Users\sakal>kubectl config use-context docker-desktop
Switched to context "docker-desktop".

C:\Users\sakal>kubectl config current-context
docker-desktop

C:\Users\sakal>kubectl config get-context
error: unknown command "get-context"
See 'kubectl config -h' for help and examples

C:\Users\sakal>kubectl config get-contexts
CURRENT NAME CLUSTER AUTHINFO NAMESPACE
* docker-desktop docker-desktop docker-desktop minikube default
minikube minikube minikube

C:\Users\sakal>
```

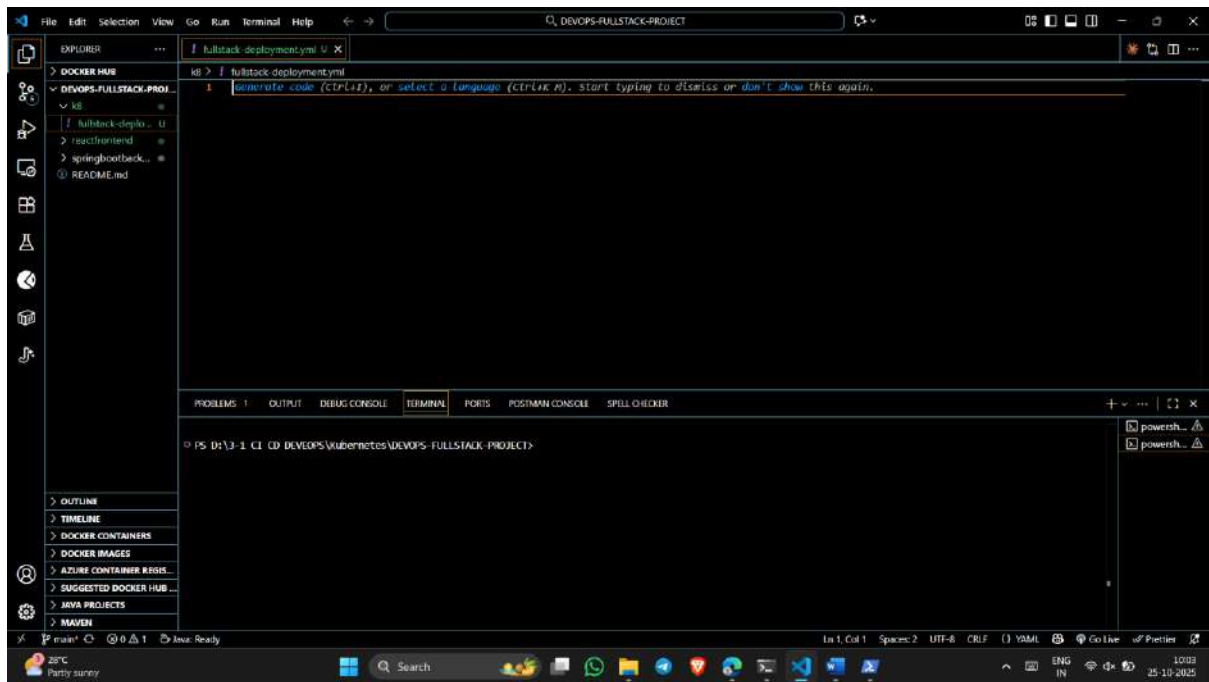
```
Administrator: Windows PowerShell
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

Install the latest PowerShell for new features and improvements! https://aka.ms/PSWindows

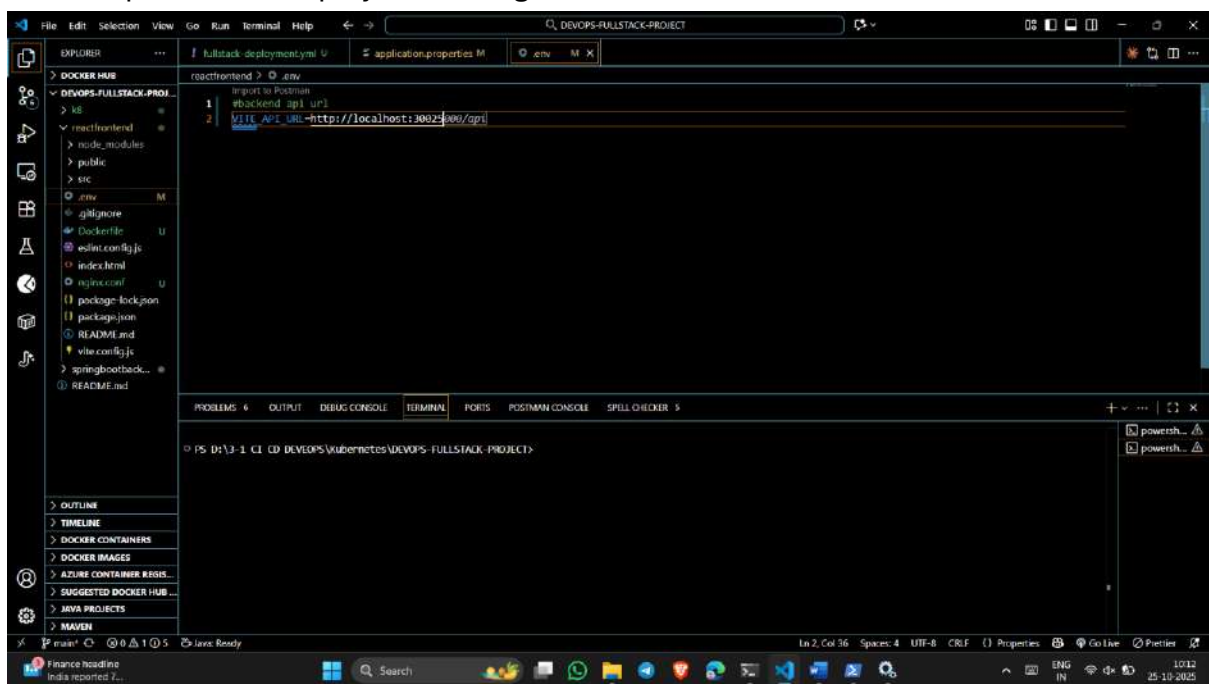
PS C:\WINDOWS\system32> minikube delete
* Deleting "minikube" in docker ...
* Removing C:\Users\sakal\minikube\machines\minikube ...
* Removed all traces of the "minikube" cluster.
PS C:\WINDOWS\system32> choco uninstall minikube
Chocolatey v2.5.1
Could not find a command registered that meets 'uninstall'.
Try choco --help for command reference/help.
PS C:\WINDOWS\system32> choco uninstall minikube
Chocolatey v2.5.1
Uninstalling the following packages:
minikube

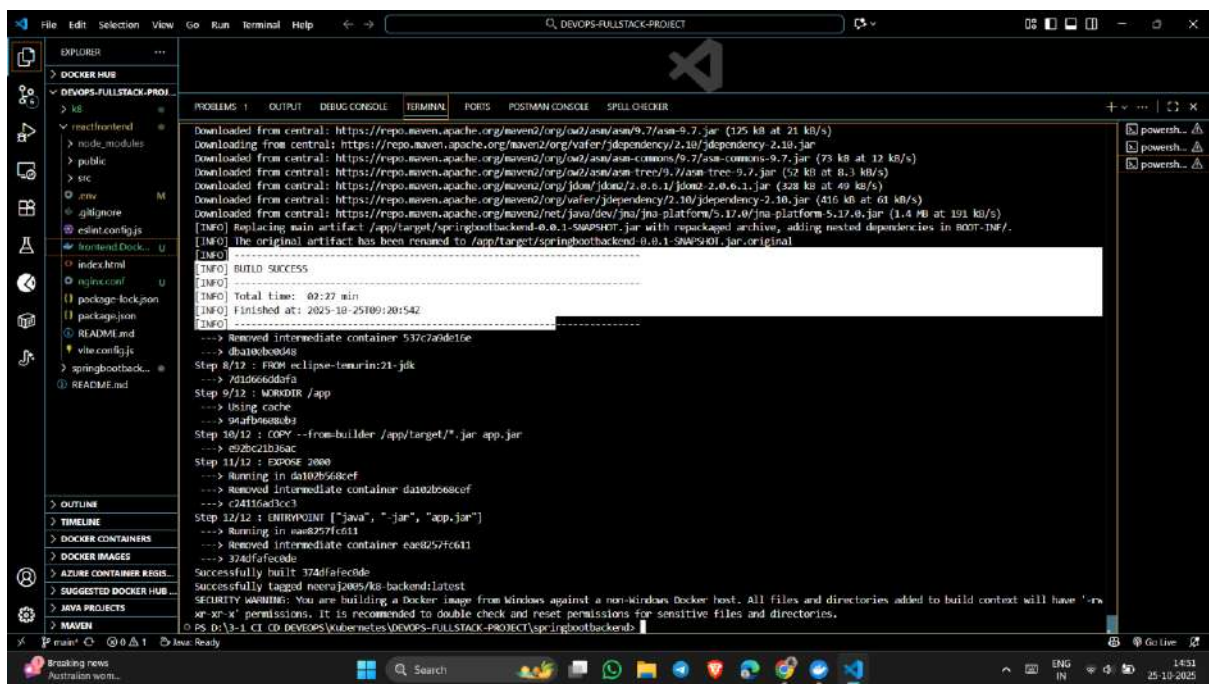
Minikube v1.37.0
Skipping auto uninstaller - No registry snapshot.
Minikube has been successfully uninstalled.

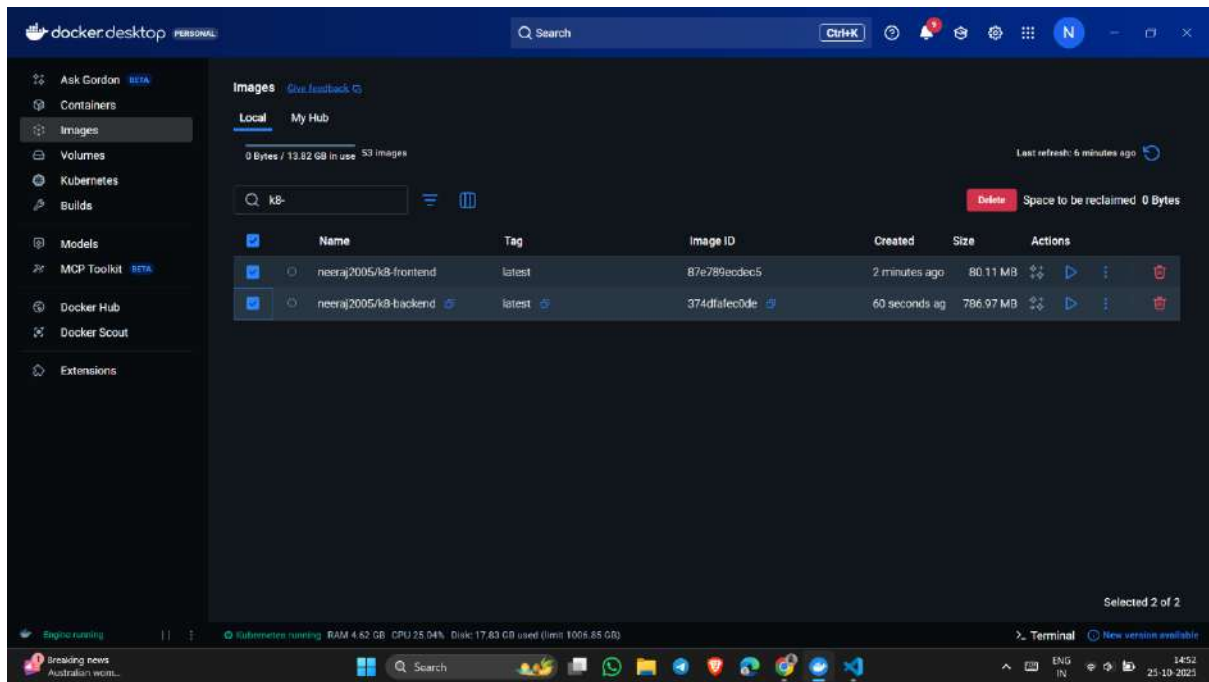
Chocolatey uninstalled 1/1 packages.
See the log for details (C:\ProgramData\chocolatey\logs\chocolatey.log).
PS C:\WINDOWS\system32>
```

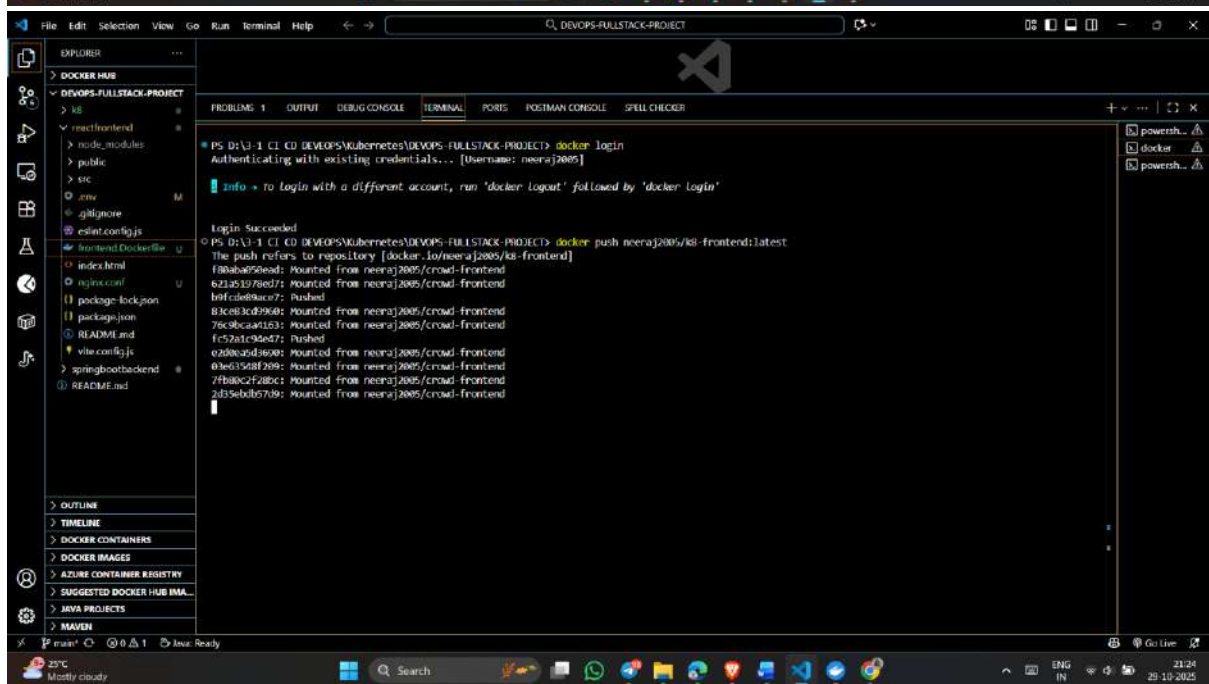
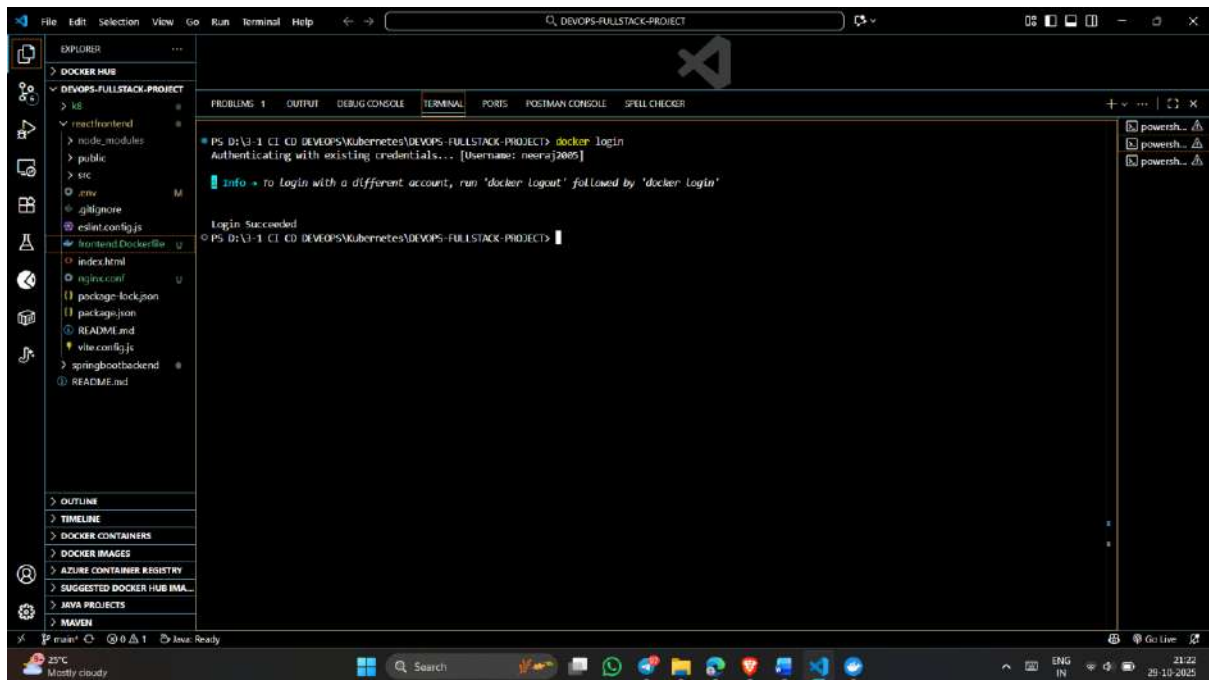


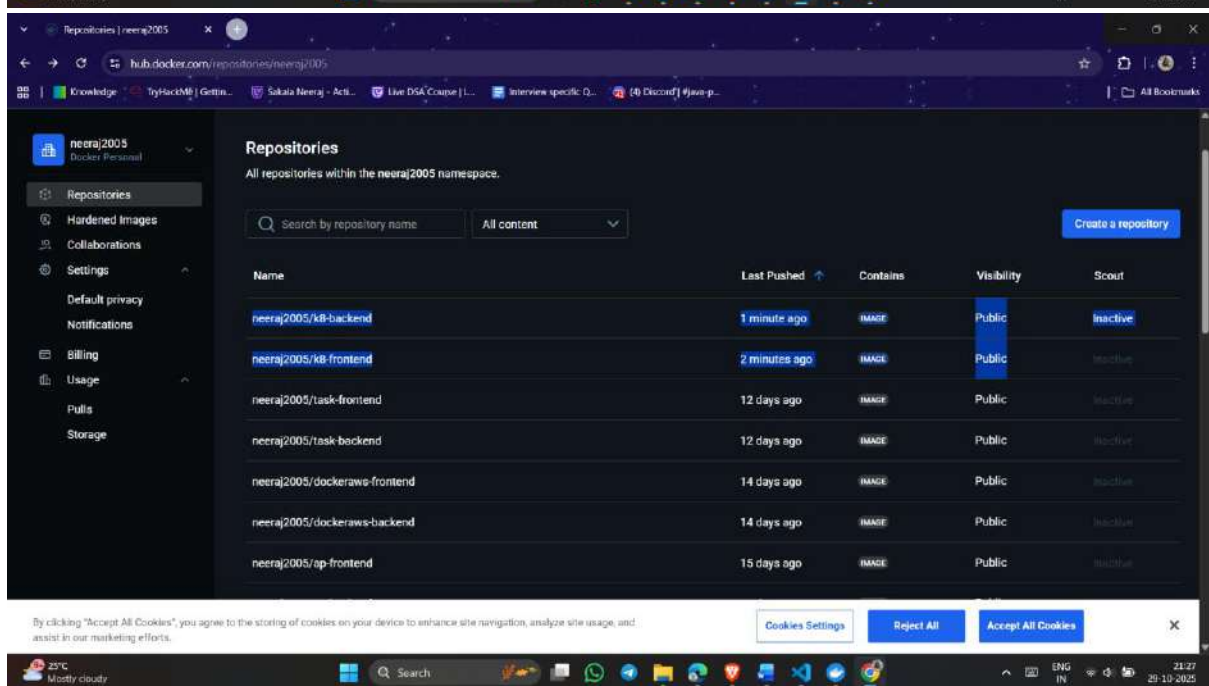
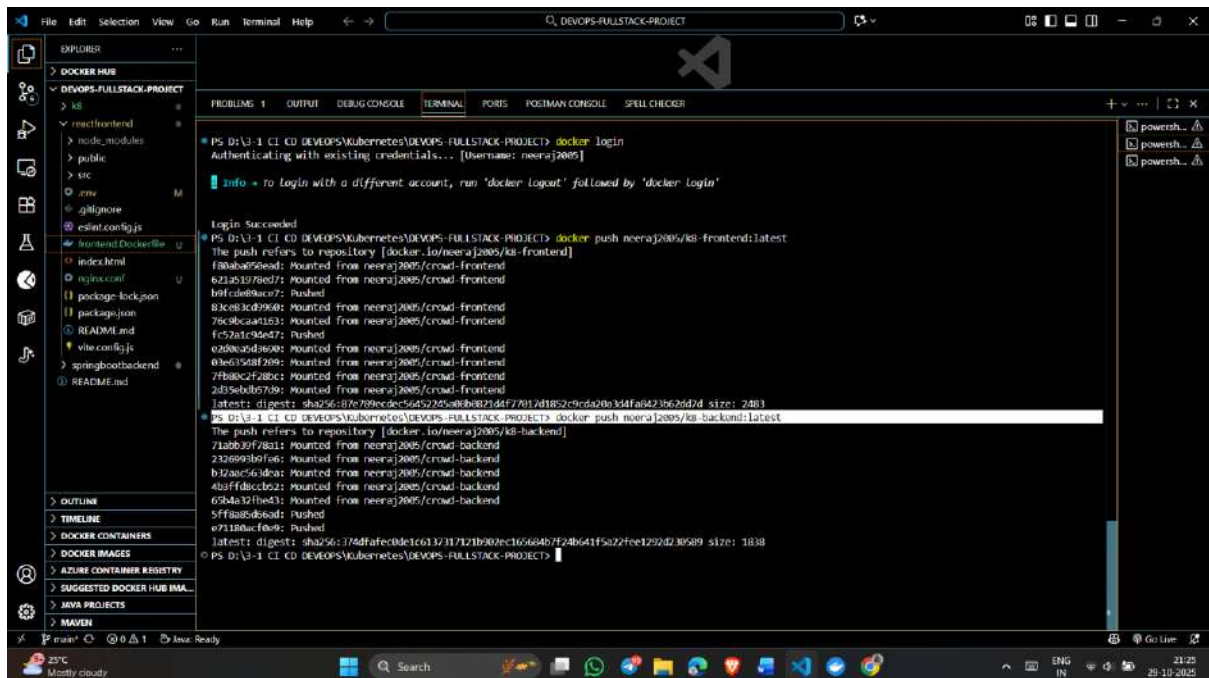
No multiple files for deployment using one full stack

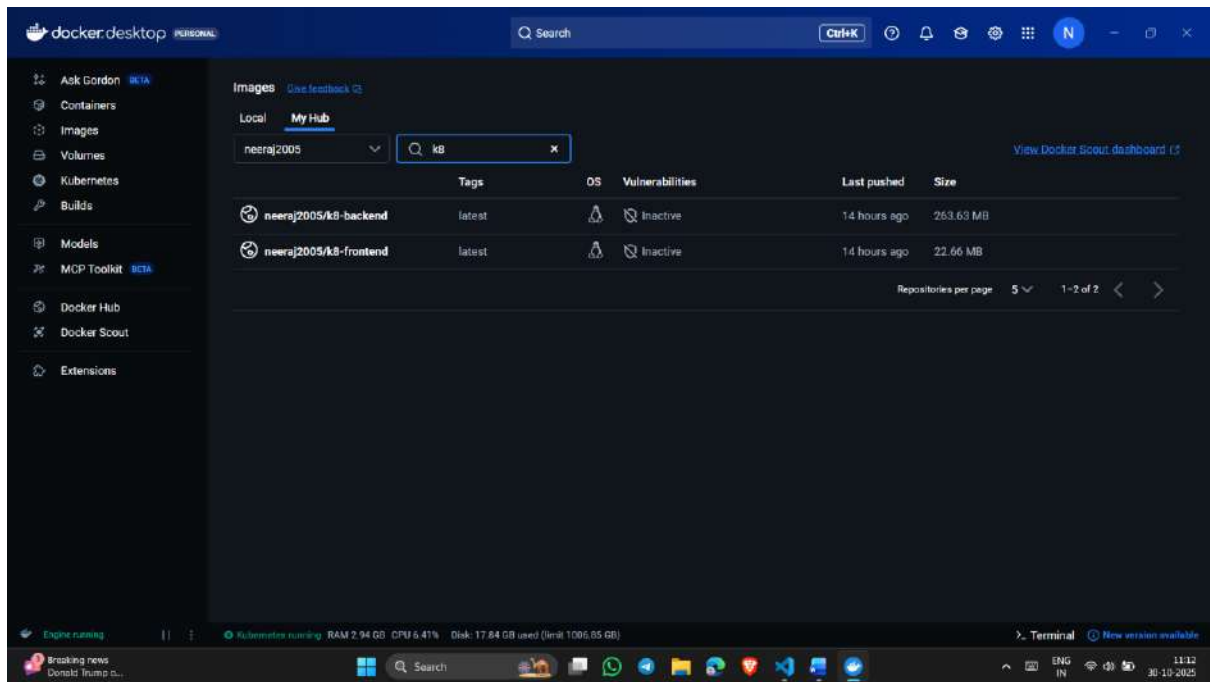


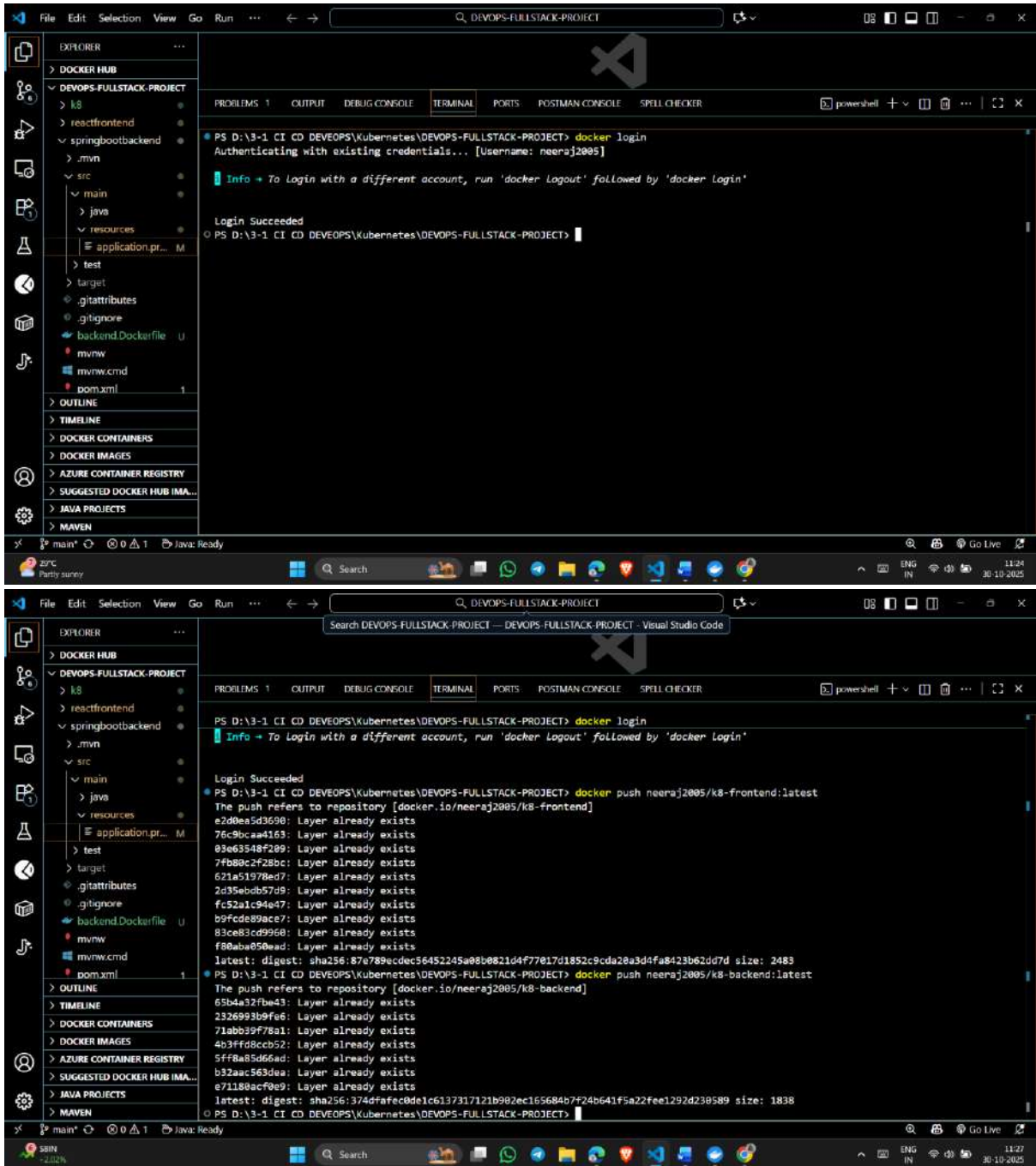


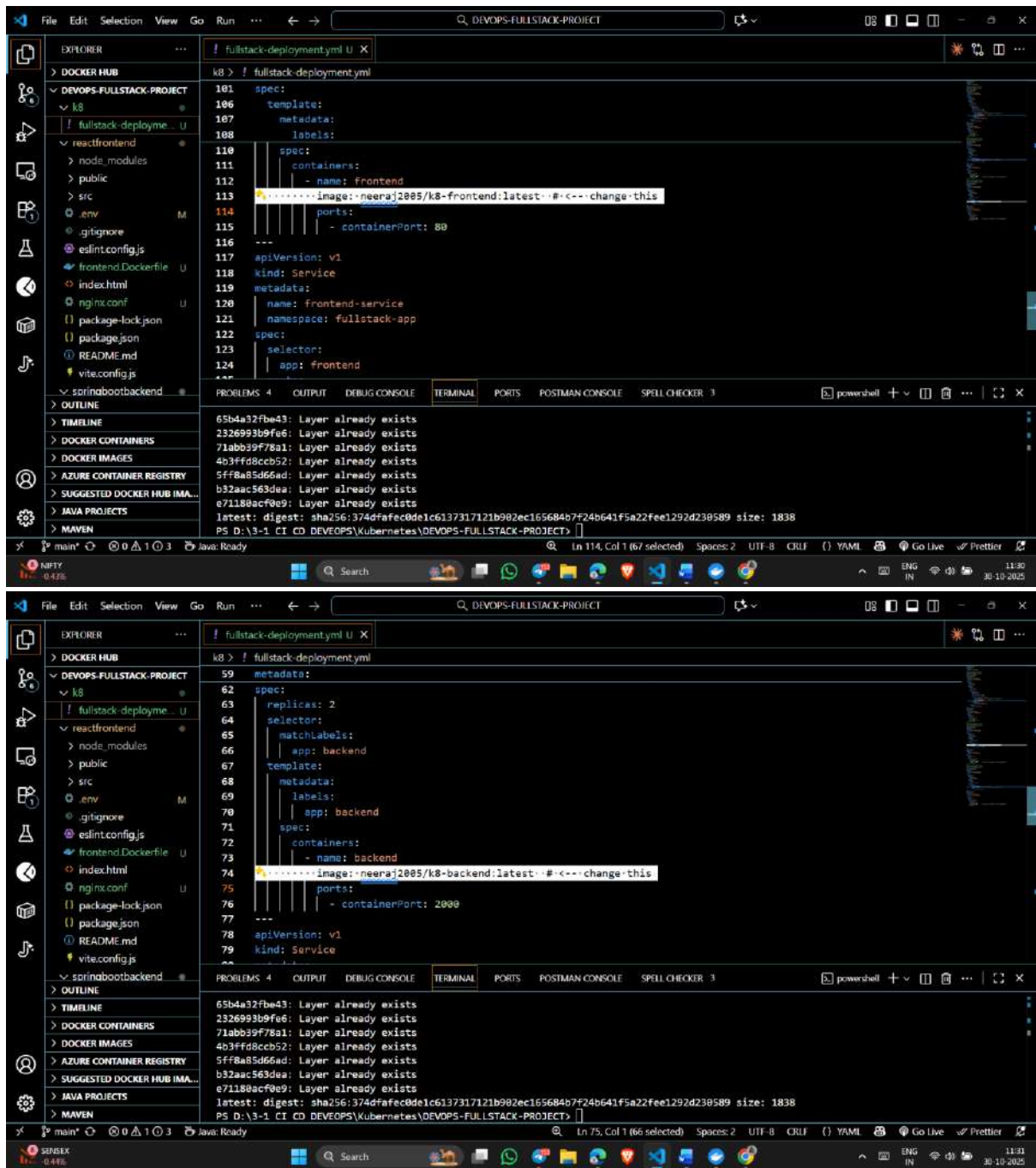




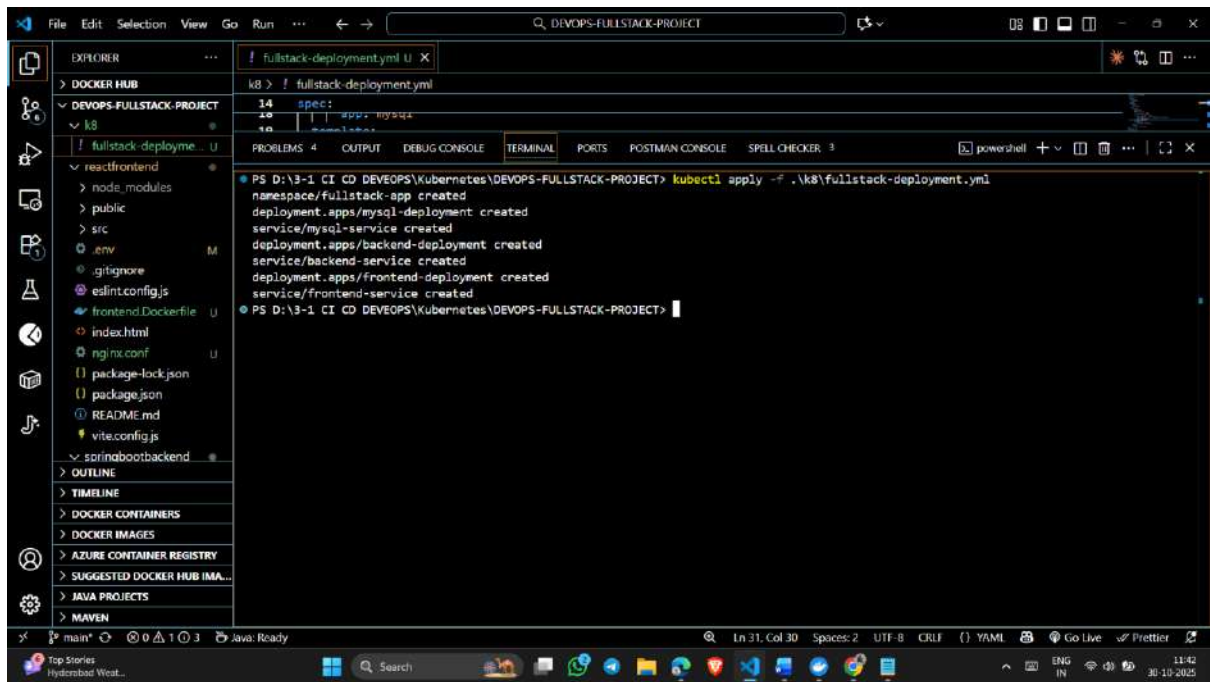








kubectl apply -f.\k8\fullstack-deployment.yml



VS Code interface showing the Explorer, Docker Hub, and Kubernetes deployment files. The terminal displays the command `kubectl get all -n fullstack-app`.

```
1 apiVersion: v1
2 kind: Namespace
3 metadata:
4   name: fullstack-app
5 ---
6 # =====
7 # MySQL Deployment & Service
8 # =====
9 apiVersion: apps/v1
10 kind: Deployment
11 metadata:
12   name: mysql-deployment
13   namespace: fullstack-app
14 spec:
15   replicas: 1
```

Terminal output:

```
PS D:\3-1 CI CD DEVOPS\Kubernetes\DEVOPS-FULLSTACK-PROJECT> kubectl get all -n fullstack-app
```

VS Code interface showing the Explorer, Docker Hub, and Kubernetes deployment files. The terminal displays the command `kubectl get all -n fullstack-app`, showing the output of the command.

```
NAME READY STATUS RESTARTS AGE
pod/backend-deployment-5d4989568b-9b5qm 0/1 ContainerCreating 0 7m4s
pod/backend-deployment-5d4989568b-slxbz 0/1 ContainerCreating 0 7m4s
pod/frontend-deployment-688747f78d-j5xkh 0/1 ContainerCreating 0 7m4s
pod/frontend-deployment-688747f78d-sgpd9 0/1 ContainerCreating 0 7m4s
pod/mysql-deployment-64fcc6bd5-sb9dc 0/1 ContainerCreating 0 7m4s
```

NAME	TYPE	CLUSTER-IP	EXTERNAL-IP	PORT(S)	AGE
service/backend-service	NodePort	10.99.198.200	<none>	2000:30025/TCP	7m4s
service/frontend-service	NodePort	10.96.23.157	<none>	80:30080/TCP	7m4s
service/mysql-service	ClusterIP	10.105.153.124	<none>	3306/TCP	7m4s

NAME	READY	UP-TO-DATE	AVAILABLE	AGE
deployment.apps/backend-deployment	0/2	2	0	7m4s
deployment.apps/frontend-deployment	0/2	2	0	7m4s
deployment.apps/mysql-deployment	0/1	1	0	7m4s

NAME	DESIRED	CURRENT	READY	AGE
replicaset.apps/backend-deployment-5d4989568b	2	2	0	7m4s
replicaset.apps/frontend-deployment-688747f78d	2	2	0	7m4s
replicaset.apps/mysql-deployment-64fcc6bd5	1	1	0	7m4s

Terminal output:

```
PS D:\3-1 CI CD DEVOPS\Kubernetes\DEVOPS-FULLSTACK-PROJECT>
```

VS Code interface showing the Explorer, Docker Hub, and DevOps-FULLSTACK-PROJECT. The terminal displays the command `kubectl apply -f .\k8\fullstack-deployment.yml` and the output of `kubectl get all -n fullstack-app`.

```
PS D:\3-1 CI CD DEVOPS\Kubernetes\DEVOPS-FULLSTACK-PROJECT> kubectl apply -f .\k8\fullstack-deployment.yml
service/frontend-service unchanged
PS D:\3-1 CI CD DEVOPS\Kubernetes\DEVOPS-FULLSTACK-PROJECT> kubectl get all -n fullstack-app
```

NAME	READY	STATUS	RESTARTS	AGE
pod/backend-deployment-5d4989568b-9b5qm	1/1	Running	1 (2m2s ago)	18m
pod/backend-deployment-5d4989568b-slxzb	1/1	Running	1 (2m4s ago)	18m
pod/frontend-deployment-688747f78d-j5xkh	1/1	Running	0	18m
pod/frontend-deployment-688747f78d-sgpd9	1/1	Running	0	18m
pod/mysql-deployment-64fcc6bd5-sb9dc	1/1	Running	0	18m

NAME	TYPE	CLUSTER-IP	EXTERNAL-IP	PORT(S)	AGE
service/backend-service	NodePort	10.99.198.200	<none>	2000:30025/TCP	18m
service/frontend-service	NodePort	10.96.23.157	<none>	80:30080/TCP	18m
service/mysql-service	ClusterIP	10.105.153.124	<none>	3306/TCP	18m

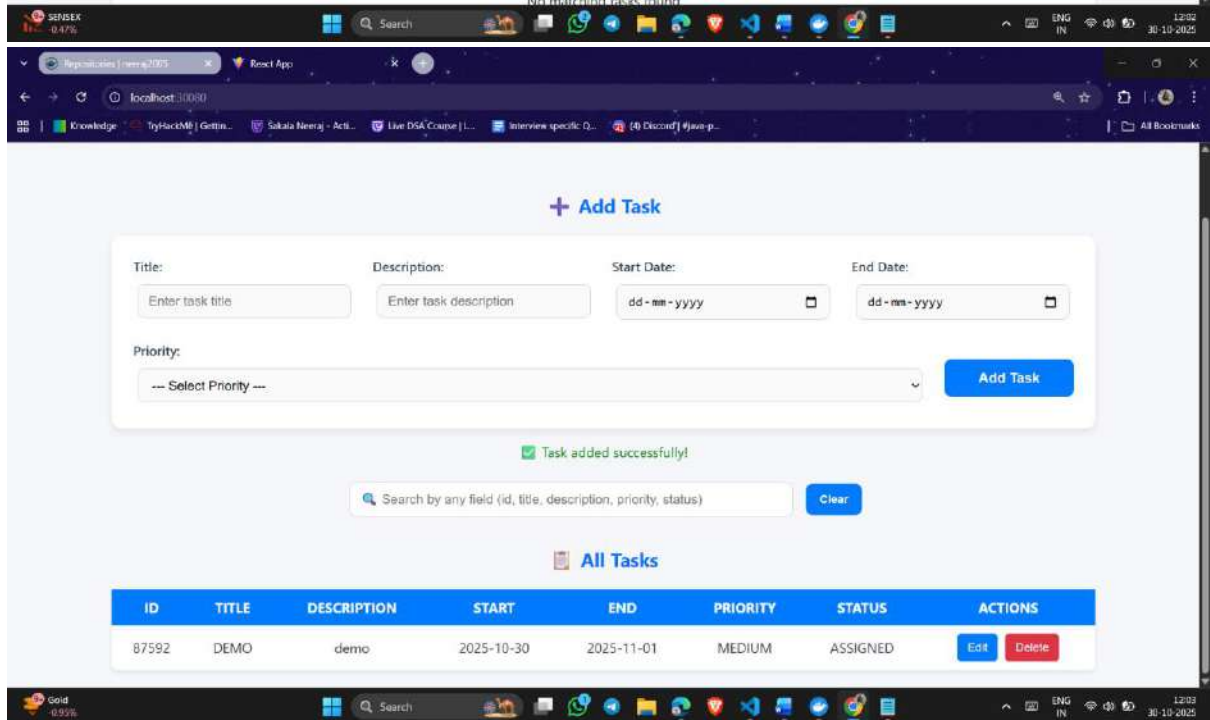
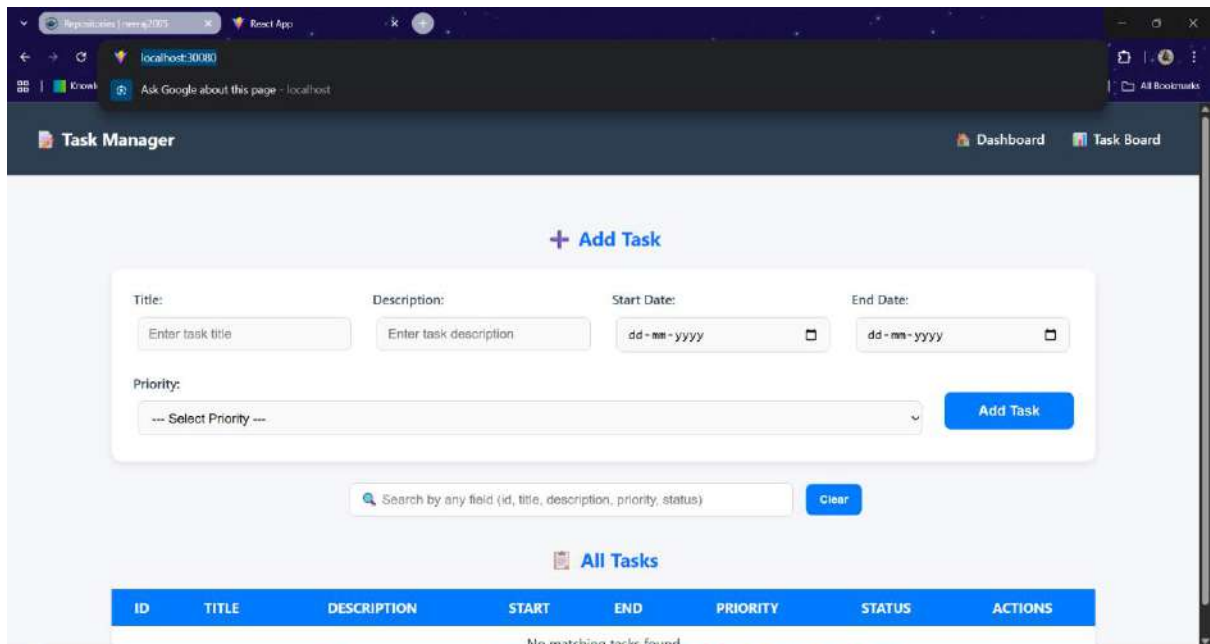
NAME	READY	UP-TO-DATE	AVAILABLE	AGE
deployment.apps/backend-deployment	2/2	2	2	18m
deployment.apps/frontend-deployment	2/2	2	2	18m
deployment.apps/mysql-deployment	1/1	1	1	18m

NAME	DESIRED	CURRENT	READY	AGE
replicaset.apps/backend-deployment-5d4989568b	2	2	2	18m
replicaset.apps/frontend-deployment-688747f78d	2	2	2	18m
replicaset.apps/mysql-deployment-64fcc6bd5	1	1	1	18m

VS Code interface showing the Explorer, Docker Hub, and DevOps-FULLSTACK-PROJECT. The terminal displays the command `kubectl get pods -n fullstack-app` and the output of `kubectl get pods -n fullstack-app`.

```
PS D:\3-1 CI CD DEVOPS\Kubernetes\DEVOPS-FULLSTACK-PROJECT> kubectl get pods -n fullstack-app
```

NAME	READY	STATUS	RESTARTS	AGE
backend-deployment-5d4989568b-9b5qm	1/1	Running	1 (3m9s ago)	19m
backend-deployment-5d4989568b-slxzb	1/1	Running	1 (3m11s ago)	19m
frontend-deployment-688747f78d-j5xkh	1/1	Running	0	19m
frontend-deployment-688747f78d-sgpd9	1/1	Running	0	19m
mysql-deployment-64fcc6bd5-sb9dc	1/1	Running	0	19m



localhost:3000

KnowledgeTryHackMe | Gettin...Sakata Neeraj - Act...Live DSA Course | L...Interview specific Q...Discord | Java p...All Bookmarks

+ Add Task

Title:

Enter task title

Description:

Enter task description

Start Date:

dd-mm-yyyy

End Date:

dd-mm-yyyy

Priority:

--- Select Priority ---

Add Task

Task added successfully!

Search by any field (id, title, description, priority, status)

Clear

All Tasks

ID	TITLE	DESCRIPTION	START	END	PRIORITY	STATUS	ACTIONS
60680	CICD	CICD LAB	2025-10-30	2025-11-02	HIGH	ASSIGNED	<div>EditDelete</div>
87592	DEMO	demo	2025-10-30	2025-11-01	MEDIUM	ASSIGNED	<div>EditDelete</div>

Hot days ahead
30°C

Search

ENG
IN

12:04
30-10-2025

localhost:3000

KnowledgeTryHackMe | Gettin...Sakata Neeraj - Act...Live DSA Course | L...Interview specific Q...Discord | Java p...All Bookmarks

Task Board

ASSIGNED

CICD

CICD LAB

Priority: HIGH

Start: 2025-10-30

End: 2025-11-02

Start

DEMO

demo

Priority: MEDIUM

Start: 2025-10-30

End: 2025-11-01

Start

PROGRESS

COMPLETED

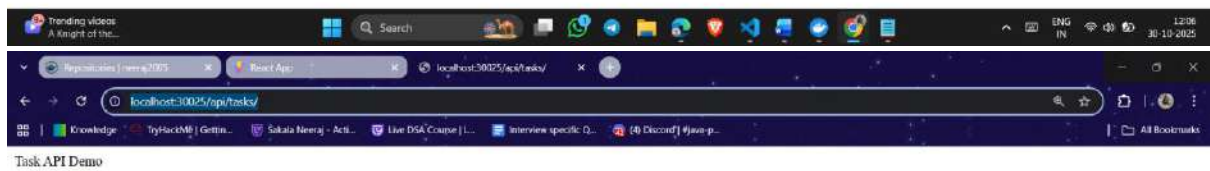
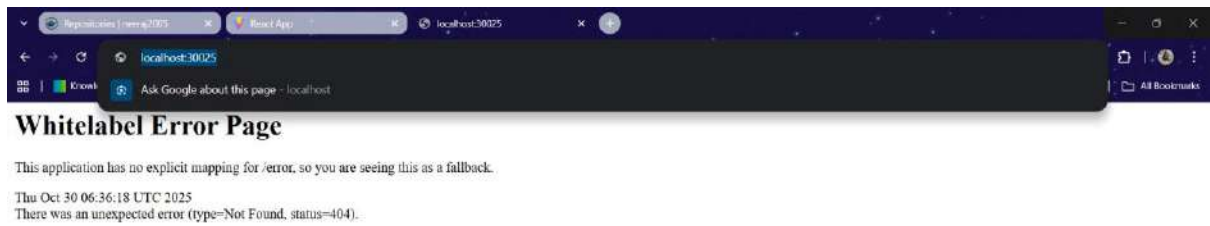
REJECTED

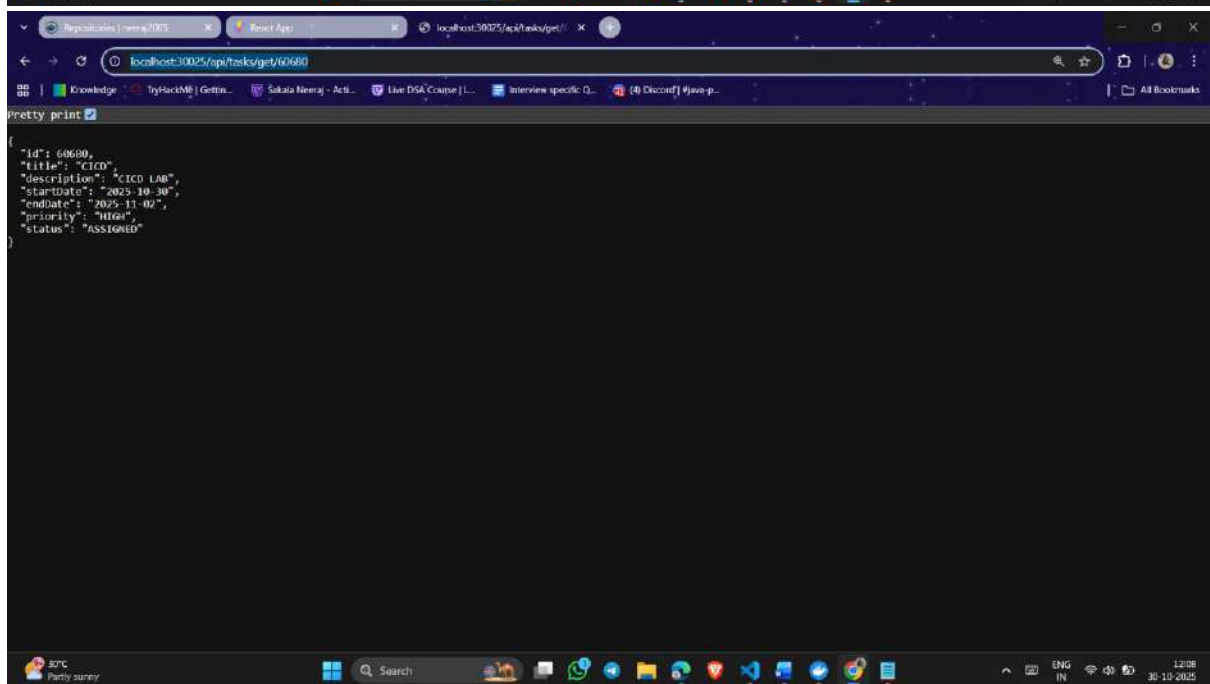
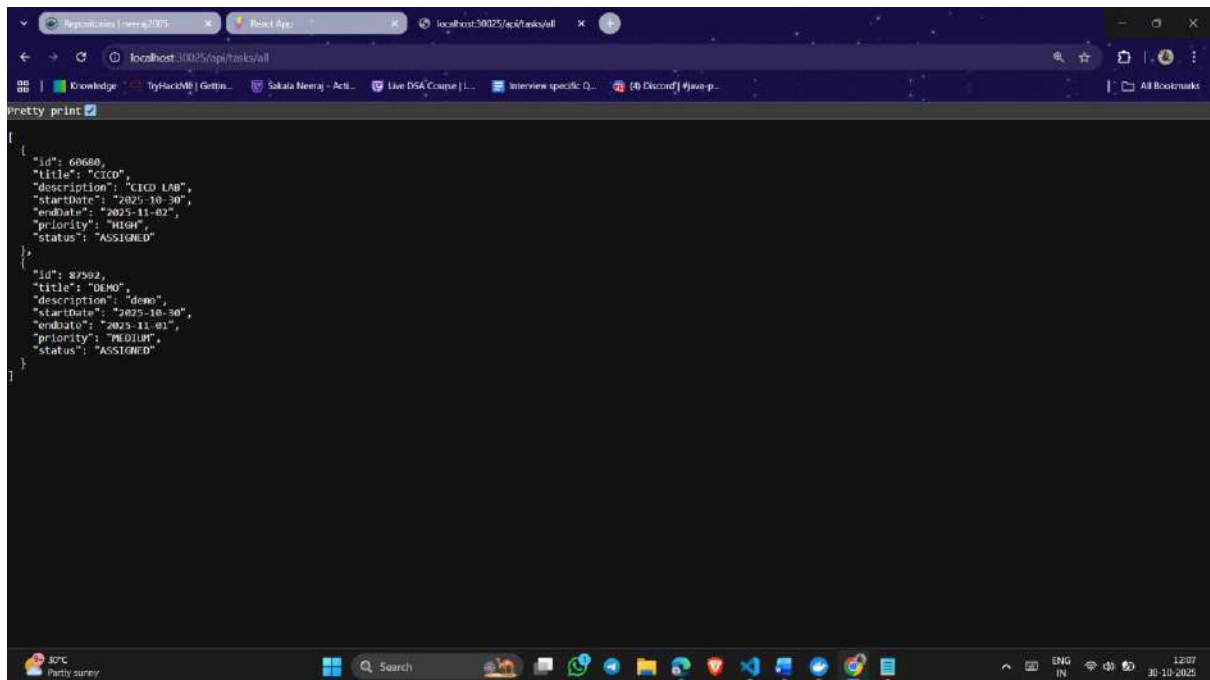
Watchlist
Kiran

Search

ENG
IN

12:05
30-10-2025







Swagger UI

localhost:30025/swagger-ui/index.html

Apache 2.0

Servers
http://localhost:30025 - Generated server url

task-controller

PUT

/api/tasks/updatestatus/{id}

PUT

/api/tasks/update/{id}

POST

/api/tasks/add

GET

/api/tasks/get/{id}

GET

/api/tasks/all

GET

/api/tasks/

DELETE

/api/tasks/delete/{id}

37°C
Partly sunny

Search

ENG
IN

12:10
30-10-2025

docker desktop PERSONAL

Search

Ctrl+K

Containers

Container CPU usage
NaN% / 1200% (17 CPUs available)

Container memory usage
1.06GB / 7.42GB

Show charts

Search

Only show running containers

	Name	Container ID	Image	Port(s)	CPU (%)	Last started	Actions
<input type="checkbox"/>	k8s_mysql_mysql-deploy	0d290874741d	mysql		1.73%	14 minutes ago	
<input type="checkbox"/>	k8s_frontend_frontend-d	d16c14129559	neeraj2005/k8s-frontend		0%	14 minutes ago	
<input type="checkbox"/>	k8s_frontend_frontend-d	7e4399f8a0f2	neeraj2005/k8s-frontend		0%	13 minutes ago	
<input type="checkbox"/>	k8s_backend_backend-d	f2045db7dad	neeraj2005/k8s-backend		0.82%	13 minutes ago	
<input type="checkbox"/>	k8s_backend_backend-d	986a842bee73	neeraj2005/k8s-backend		0.89%	13 minutes ago	

Showing 5 items

Engine running

Kubernetes running

RAM 5.54 GB

CPU 13.28%

Disk: 19.04 GB used (limit 1006.05 GB)

Terminal

New version available

33IN
12.02%

Search

ENG
IN

12:11
30-10-2025

VS Code interface showing the Explorer, Docker Hub, and Terminal panels. The Explorer panel displays the file structure of the project, including folders like `reactfrontend`, `node_modules`, `public`, `src`, and files like `.env`, `.gitignore`, `eslint.config.js`, `frontend.Dockerfile`, `index.html`, `nginx.conf`, `package-lock.json`, `package.json`, `README.md`, `vite.config.js`, and `springbootbackend`. The Docker Hub panel shows the `fullstack-deployment.yml` file. The Terminal panel displays the output of the `kubectl get -f ./k8/fullstack-deployment.yml` command, showing the deployment status of the application.

```
PS D:\3-1 CI DEVEOPS\Kubernetes\DEVOPS-FULLSTACK-PROJECT> kubectl get -f ./k8/fullstack-deployment.yml
```

NAME	STATUS	AGE
namespace/fullstack-app	Active	31m

NAME	READY	UP-TO-DATE	AVAILABLE	AGE
deployment.apps/mysql-deployment	1/1	1	1	31m

NAME	TYPE	CLUSTER-IP	EXTERNAL-IP	PORT(S)	AGE
service/mysql-service	ClusterIP	10.185.153.124	<none>	3306/TCP	31m

NAME	READY	UP-TO-DATE	AVAILABLE	AGE
deployment.apps/backend-deployment	2/2	2	2	31m

NAME	TYPE	CLUSTER-IP	EXTERNAL-IP	PORT(S)	AGE
service/backend-service	NodePort	10.99.198.200	<none>	2000:30025/TCP	31m

NAME	READY	UP-TO-DATE	AVAILABLE	AGE
deployment.apps/frontend-deployment	2/2	2	2	31m

NAME	TYPE	CLUSTER-IP	EXTERNAL-IP	PORT(S)	AGE
service/frontend-service	NodePort	10.96.23.157	<none>	80:30008/TCP	31m

VS Code interface showing the Explorer, Docker Hub, and Terminal panels. The Explorer panel displays the file structure of the project, including folders like `reactfrontend`, `node_modules`, `public`, `src`, and files like `.env`, `.gitignore`, `eslint.config.js`, `frontend.Dockerfile`, `index.html`, `nginx.conf`, `package-lock.json`, `package.json`, `README.md`, `vite.config.js`, and `springbootbackend`. The Docker Hub panel shows the `fullstack-deployment.yml` file. The Terminal panel displays the output of the `kubectl get pods -n fullstack-app` command, showing the deployment status of the application.

VS Code interface showing the Explorer, Docker Hub, and Terminal panels. The Explorer panel displays the file structure of the project, including folders like `reactfrontend`, `node_modules`, `public`, `src`, and files like `.env`, `.gitignore`, `eslint.config.js`, `frontend.Dockerfile`, `index.html`, `nginx.conf`, `package-lock.json`, `package.json`, `README.md`, `vite.config.js`, and `springbootbackend`. The Docker Hub panel shows the `fullstack-deployment.yml` file. The Terminal panel displays the output of the `kubectl get pods -n fullstack-app` command, showing the deployment status of the application.

```
PS D:\3-1 CI DEVEOPS\Kubernetes\DEVOPS-FULLSTACK-PROJECT> kubectl get pods -n fullstack-app
```

NAME	READY	STATUS	RESTARTS	AGE
backend-deployment-5d4989568b-9b5qm	1/1	Running	1 (18m ago)	34m
backend-deployment-5d4989568b-slxzb	1/1	Running	1 (18m ago)	34m
frontend-deployment-688747f78d-j5xkh	1/1	Running	0	34m
frontend-deployment-688747f78d-sgpd9	1/1	Running	0	34m
mysql-deployment-64fcc6bd5-sb9dc	1/1	Running	0	34m

error: error from server (NotFound): pods "backend-deployment-5d4989568b-9b5qm" not found in namespace "default"

```
PS D:\3-1 CI DEVEOPS\Kubernetes\DEVOPS-FULLSTACK-PROJECT>
```

VS Code interface showing the Explorer, Docker Hub, and Terminal panels. The Explorer panel displays the file structure of the project, including folders like `reactfrontend`, `node_modules`, `public`, `src`, and files like `.env`, `.gitignore`, `eslint.config.js`, `frontend.Dockerfile`, `index.html`, `nginx.conf`, `package-lock.json`, `package.json`, `README.md`, `vite.config.js`, and `springbootbackend`. The Docker Hub panel shows the `fullstack-deployment.yml` file. The Terminal panel displays the output of the `kubectl logs -f backend-deployment-5d4989568b-9b5qm` command, showing the logs of the application.

File Edit Selection View Go Run ...

DEVOPS-FULLSTACK-PROJECT

fullstack-deployment.yml X

fullstack-deployment.yml

62 spec:

PROBLEMS 4 OUTPUT DEBUG CONSOLE TERMINAL PORTS POSTMAN CONSOLE SPELL CHECKER 3

PS D:\3-1 CI CD DEVOPS\Kubernetes\DEVOPS-FULLSTACK-PROJECT> kubectl get pods -n fullstack-app

NAME	READY	STATUS	RESTARTS	AGE
backend-deployment-5d4989568b-9b5qm	1/1	Running	1 (18m ago)	34m
backend-deployment-5d4989568b-slxzb	1/1	Running	1 (18m ago)	34m
frontend-deployment-688747f78d-j5xkh	1/1	Running	0	34m
frontend-deployment-688747f78d-sgpd9	1/1	Running	0	34m
mysql-deployment-64fcc6bd5-sb9dc	1/1	Running	0	34m

PS D:\3-1 CI CD DEVOPS\Kubernetes\DEVOPS-FULLSTACK-PROJECT> kubectl logs -f backend-deployment-5d4989568b-9b5qm

error: error from server (NotFound): pods "backend-deployment-5d4989568b-9b5qm" not found in namespace "default"

PS D:\3-1 CI CD DEVOPS\Kubernetes\DEVOPS-FULLSTACK-PROJECT> kubectl logs -f backend-deployment-5d4989568b-9b5qm -n fullstack-app

Spring Boot (v3.5.6)

2025-10-30T06:28:35.641Z INFO 1 --- [springbootbacken] [main] c.klef.dev.SpringbootbackenApplication : Starting SpringbootApplication v0.0.1-SNAPSHOT using Java 21.0.4 with PID 1 (/app/app.jar started by root in /app)

2025-10-30T06:28:35.647Z INFO 1 --- [springbootbacken] [main] c.klef.dev.SpringbootbackenApplication : No active profile s

2025-10-30T06:28:35.647Z INFO 1 --- [springbootbacken] [main] .s.d.r.c.RepositoryConfigurationDelegate : Bootstrapping Sprin

2025-10-30T06:28:38.547Z INFO 1 --- [springbootbacken] [main] .s.d.r.c.RepositoryConfigurationDelegate : Finished Spring Dat

2025-10-30T06:28:38.854Z INFO 1 --- [springbootbacken] [main] o.s.b.w.embedded.tomcat.TomcatWebServer : Tomcat initialized

2025-10-30T06:28:40.759Z INFO 1 --- [springbootbacken] [main] o.s.b.w.embedded.tomcat.TomcatWebServer : Tomcat initialized

main* 0 1 3 Java: Ready

Ln 82, Col 6 Spaces: 2 UTF-8 CRLF () YAML Go Live Prettier

Gold -0.83%

File Edit Selection View Go Run ...

DEVOPS-FULLSTACK-PROJECT

fullstack-deployment.yml X

fullstack-deployment.yml

62 spec:

PROBLEMS 4 OUTPUT DEBUG CONSOLE TERMINAL PORTS POSTMAN CONSOLE SPELL CHECKER 3

PS D:\3-1 CI CD DEVOPS\Kubernetes\DEVOPS-FULLSTACK-PROJECT> kubectl logs -f backend-deployment-5d4989568b-9b5qm -n fullstack-app

task_table t1_0

Hibernate:

select

t1_0.id,

t1_0.description,

t1_0.end_date,

t1_0.priority,

t1_0.start_date,

t1_0.status,

t1_0.title

from

task_table t1_0

where

t1_0.id=?

Hibernate:

select

t1_0.id,

t1_0.description,

t1_0.end_date,

t1_0.priority,

t1_0.start_date,

t1_0.status,

t1_0.title

from

task_table t1_0

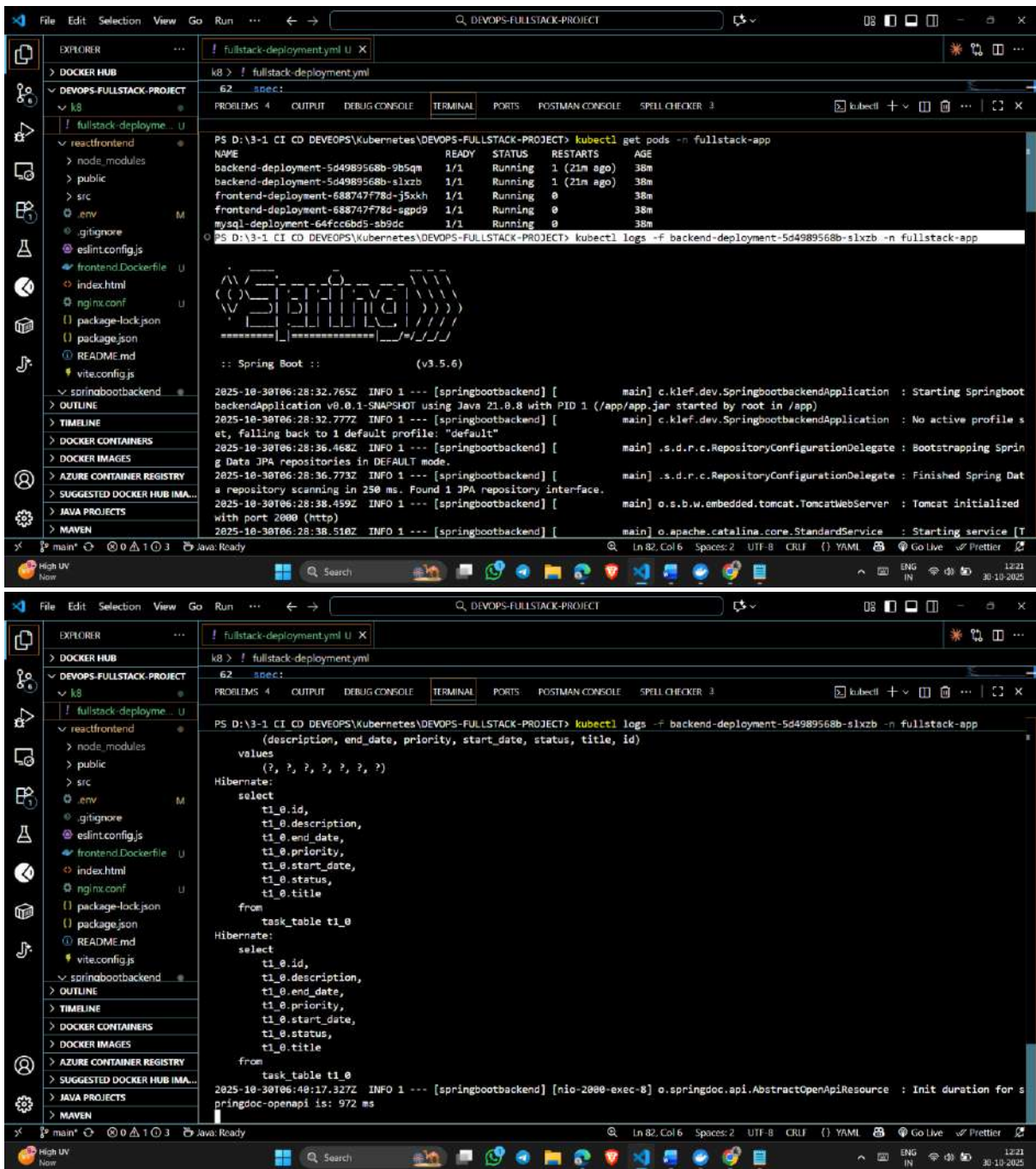
where

t1_0.id=?

main* 0 1 3 Java: Ready

Ln 82, Col 6 Spaces: 2 UTF-8 CRLF () YAML Go Live Prettier

Gold -0.83%



VS Code interface showing the Explorer, Docker Hub, and DevOps-FULLSTACK-PROJECT views. The Explorer shows the project structure including reactfrontend, node_modules, public, src, .env, .gitignore, eslint.config.js, frontend.Dockerfile, index.html, nginx.conf, package-lock.json, package.json, README.md, vite.config.js, and springbootbackend. The Docker Hub view shows the fullstack-deployment.yml file. The DevOps-FULLSTACK-PROJECT view shows the terminal output of the kubectl get pods -n fullstack-app command, displaying the status of the backend-deployment, frontend-deployment, and mysql-deployment. The terminal also shows the output of the kubectl exec -it mysql-deployment-64fcc6bd5-sb9dc -n fullstack-app -- /bin/bash command, indicating a successful connection to the MySQL database.

```
PS D:\3-1 CI CD DEVOPS\Kubernetes\DEVOPS-FULLSTACK-PROJECT> kubectl get pods -n fullstack-app
```

NAME	READY	STATUS	RESTARTS	AGE
backend-deployment-5d4989568b-9b5qm	1/1	Running	1 (26m ago)	42m
backend-deployment-5d4989568b-slxzb	1/1	Running	1 (26m ago)	42m
frontend-deployment-688747f78d-j5xkh	1/1	Running	0	42m
frontend-deployment-688747f78d-sgpd9	1/1	Running	0	42m
mysql-deployment-64fcc6bd5-sb9dc	1/1	Running	0	42m

```
PS D:\3-1 CI CD DEVOPS\Kubernetes\DEVOPS-FULLSTACK-PROJECT> kubectl exec -it mysql-deployment-64fcc6bd5-sb9dc -n fullstack-app -- /bin/bash
bash-5.1#
```

VS Code interface showing the Explorer, Docker Hub, and DevOps-FULLSTACK-PROJECT views. The Explorer shows the project structure including reactfrontend, node_modules, public, src, .env, .gitignore, eslint.config.js, frontend.Dockerfile, index.html, nginx.conf, package-lock.json, package.json, README.md, vite.config.js, and springbootbackend. The Docker Hub view shows the fullstack-deployment.yml file. The DevOps-FULLSTACK-PROJECT view shows the terminal output of the kubectl exec -it mysql-deployment-64fcc6bd5-sb9dc -n fullstack-app -- /bin/bash command, indicating a successful connection to the MySQL database. The terminal also shows the output of the mysql -u root -p password command, indicating a successful connection to the MySQL database.

```
bash-5.1# mysql -u root -p password
Enter password:
ERROR 1045 (28000): Access denied for user 'root'@'localhost' (using password: YES)
bash-5.1# clear
bash: clear: command not found
bash-5.1# cls
bash: cls: command not found
bash-5.1# mysql -u root -p
Enter password:
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 49
Server version: 8.0.44 MySQL Community Server - GPL

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

Oracle is a registered trademark of Oracle Corporation and/or its
affiliates. Other names may be trademarks of their respective
owners.
```


The screenshot shows the VS Code editor with the Explorer sidebar on the left displaying the project structure for 'DEVOPS-FULLSTACK-PROJECT'. The main editor area shows the 'fullstack-deployment.yml' file with the following content:

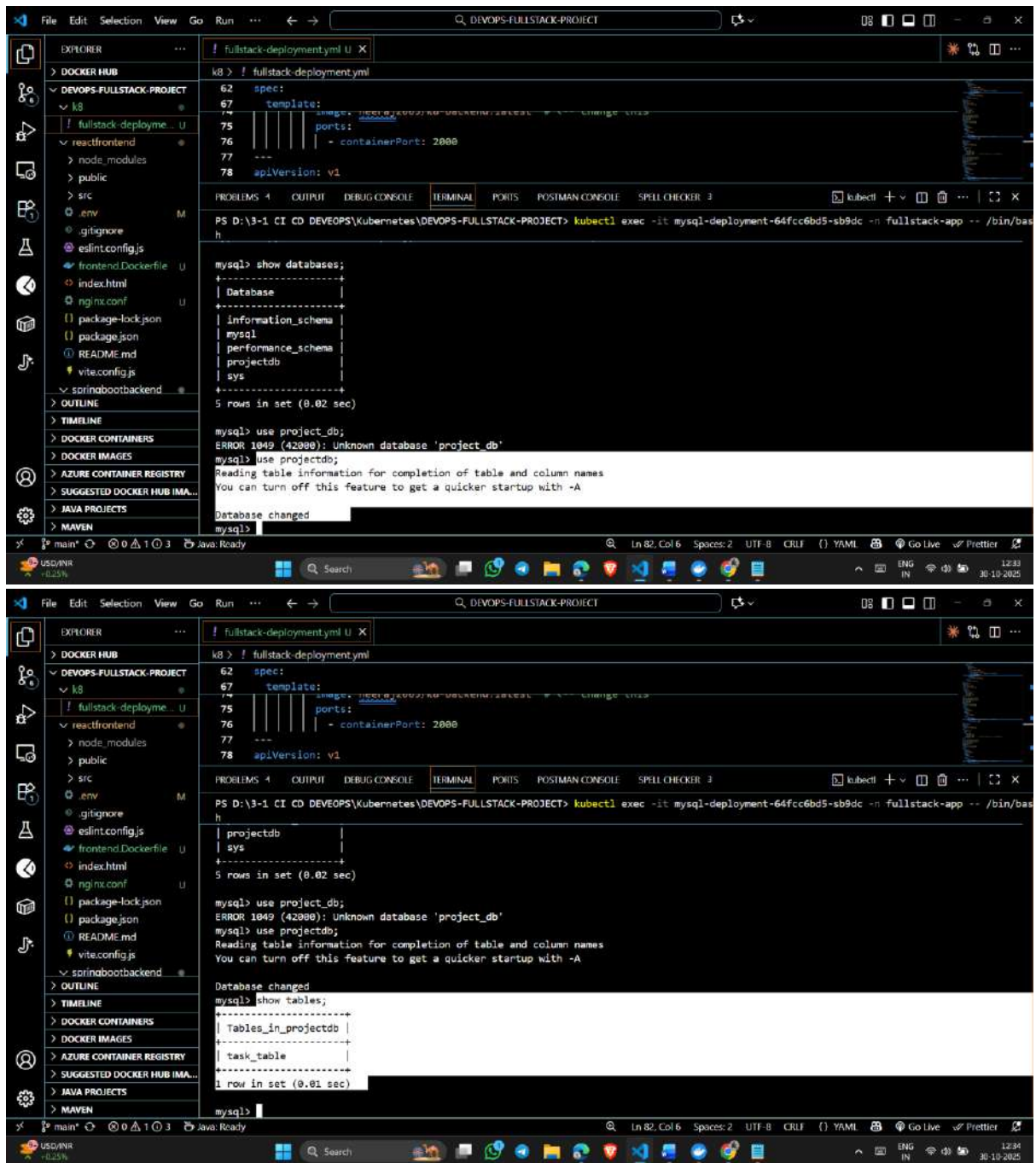
```
62 spec:
63   template:
64     spec:
65       containers:
66       - containerPort: 2000
67       ports:
68       - containerPort: 2000
69       apiVersion: v1
```

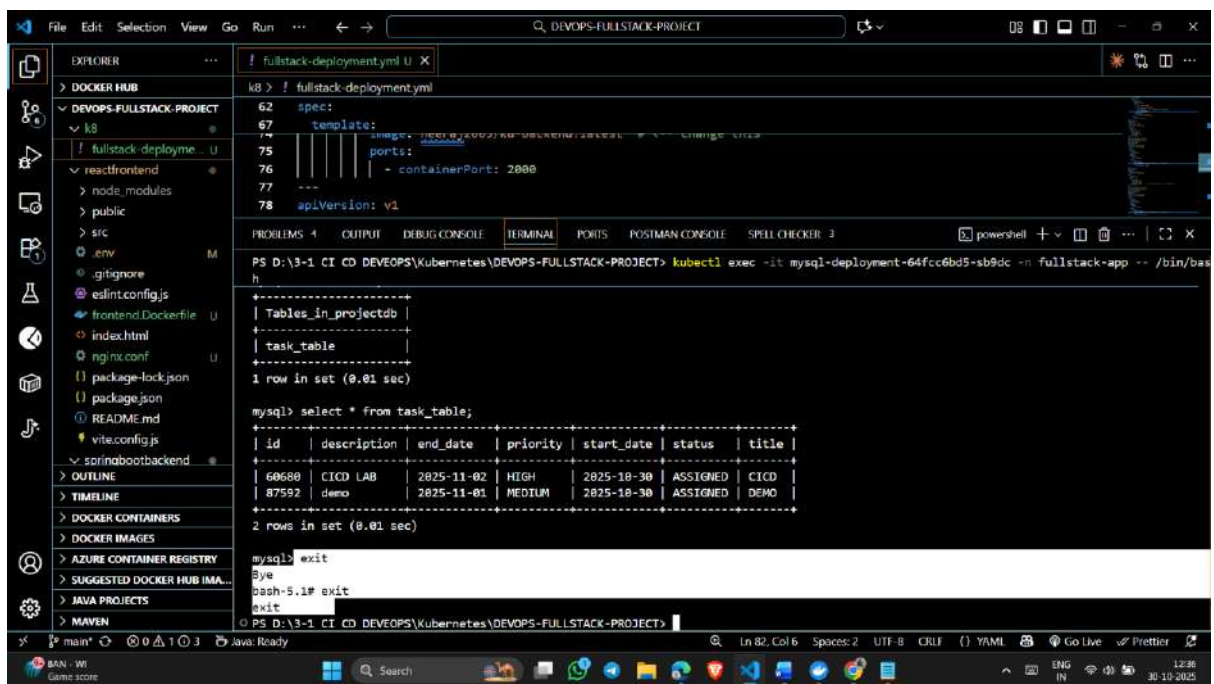
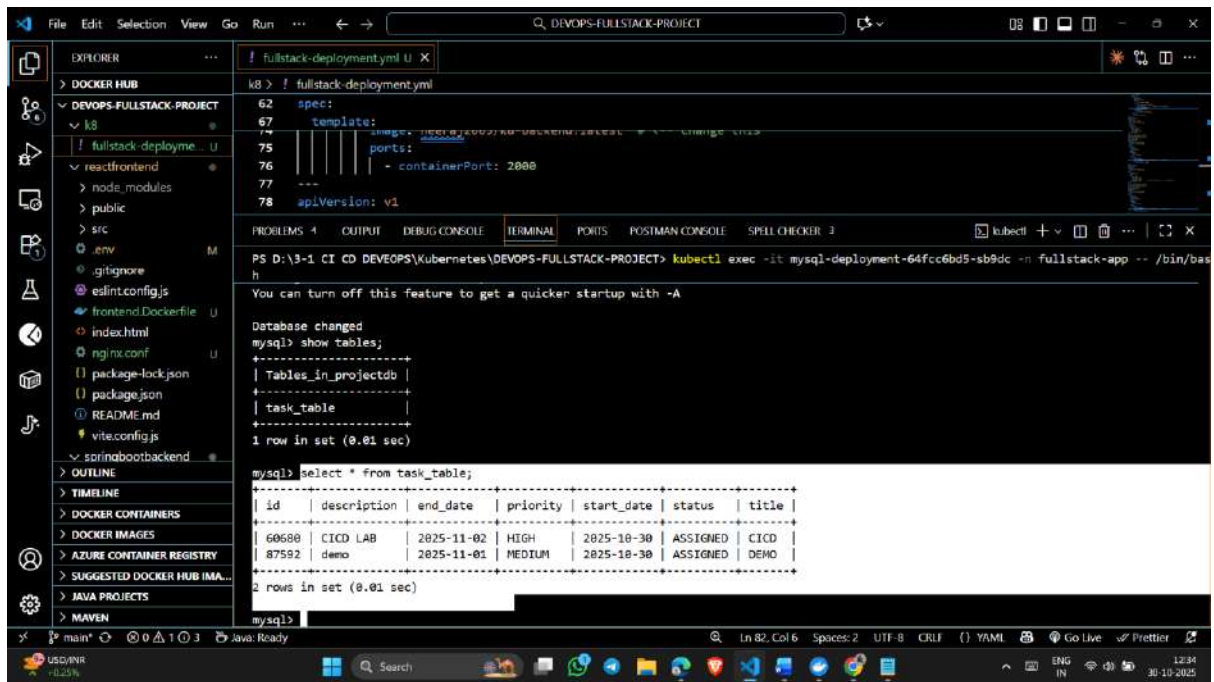
The terminal at the bottom shows the command `kubectl exec -it mysql-deployment-64fcc6bd5-sb9dc -n fullstack-app -- /bin/bash` being executed. The output shows a password prompt, an 'Access denied' error for user 'root', and a 'clear' command not found. The terminal also shows the MySQL monitor welcome message and the 'show databases;' command output.

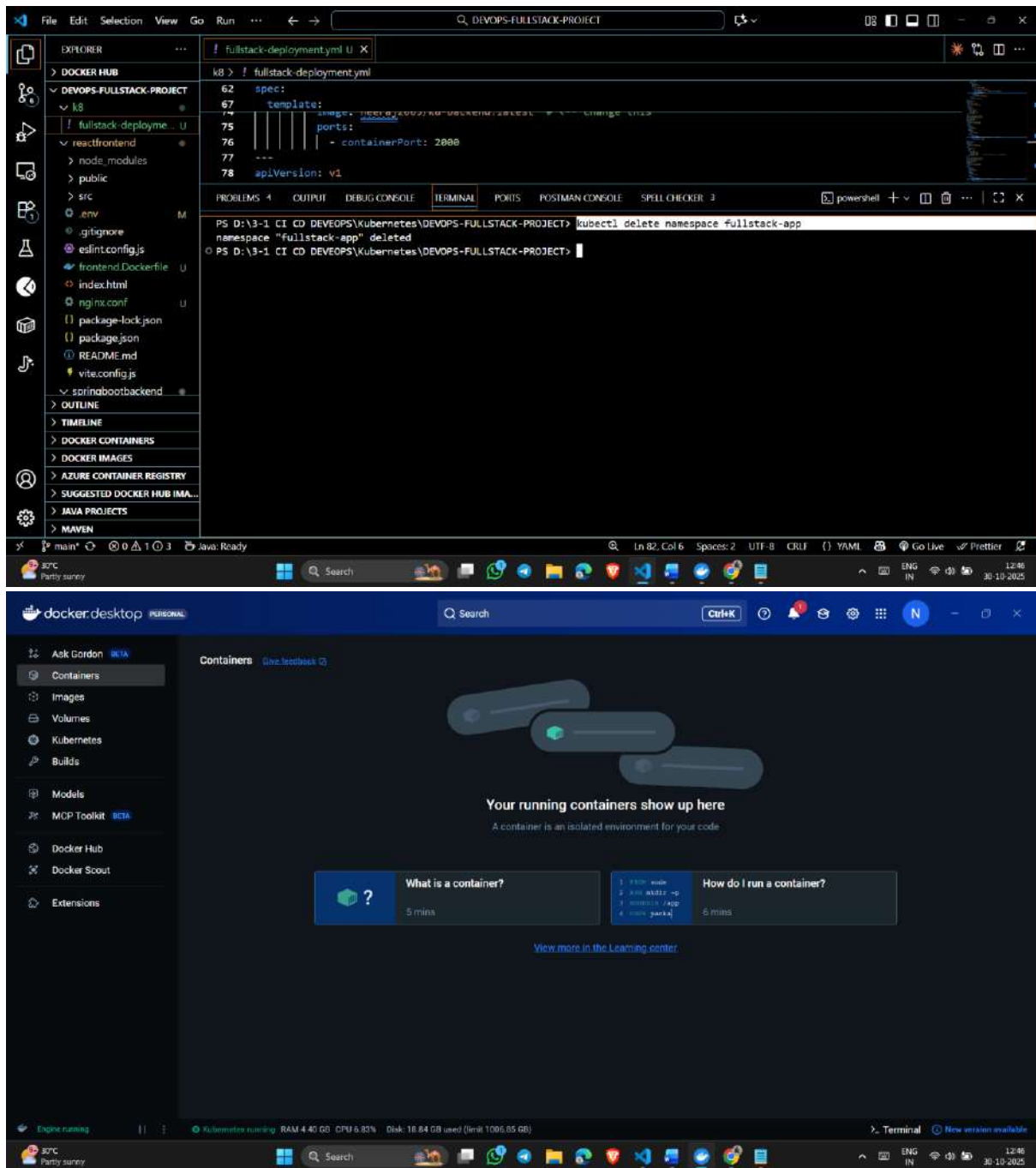
This screenshot shows the same VS Code editor with the 'fullstack-deployment.yml' file. The terminal now shows the successful execution of the `show databases;` command, displaying the following output:

```
mysql> show databases;
+-----+
| Database |
+-----+
| information_schema |
| mysql |
| performance_schema |
| projectdb |
| sys |
+-----+
5 rows in set (0.02 sec)
```

The terminal also shows the 'clear' command being executed successfully.







1. Delete the old namespace

kubectl delete namespace fullstack-app

2. Build and push new Docker images (If code is modified)

cd reactfrontend

docker build -f frontend.Dockerfile -t username/k8-frontend:latest .

docker push username/k8-frontend:latest

cd springbootbackend

docker build -f backend.Dockerfile -t username/k8-backend:latest .

docker push username/k8-backend:latest

3. Reapply deployment configuration

kubectl apply -f ./k8/fullstack-deployment.yml

4. Check that everything is up and running

kubectl get all -n fullstack-app