

Screenshots of the SWE 645 – Assignment3

1. Git hub repository:

The screenshot shows a GitHub repository page for 'MeghanaKancherla / SWE645HW3_Database'. The repository is public and has 50 commits. The commit history shows a series of updates to the '645HW3' directory, 'Dockerfile', 'Jenkinsfile', 'README.md', and 'clust2.yaml' files. The README.md file is displayed, showing the repository name 'SWE645HW3_Database'. The right sidebar contains information about the repository, including a description, activity, stars, forks, releases, and packages.

SWE645HW3_Database Public

main 1 branch 0 tags

Go to file Add file <> Code

Commit History:

| Commit | Message | Time |
|---------|--|------------|
| 576ce97 | Modified the jar file | 3 days ago |
| | 645HW3 Modified the jar file | 3 days ago |
| | Dockerfile Update Dockerfile | 4 days ago |
| | Jenkinsfile Update Jenkinsfile | last week |
| | README.md Initial commit | last week |
| | clust2.yaml Added JenkinsFile, DockerFile and yaml files | last week |

README.md

SWE645HW3_Database

About

No description, website, or topics provided.

Releases

No releases published

Packages

No packages published

2. AWS RDS:

The screenshot shows the AWS RDS console. The left sidebar contains navigation links for Amazon RDS, including Dashboard, Databases, Query Editor, Performance insights, Snapshots, Exports in Amazon S3, Automated backups, Reserved instances, Proxies, Subnet groups, Parameter groups, and Option groups. The main content area displays a list of databases. A notification banner at the top introduces Aurora I/O-Optimized. A message box suggests creating a Blue/Green Deployment to minimize downtime during upgrades. The database list shows one database named 'database145hw3' in the 'us-east-1a' region, with a status of 'Available'.

Amazon RDS



Introducing Aurora I/O-Optimized

Consider creating a Blue/Green Deployment to minimize downtime during upgrades

Databases (1)

| DB identifier | Status | Role | Engine | Region & AZ | Size | Action |
|----------------|-----------|----------|-----------------|-------------|-------------|----------|
| database145hw3 | Available | Instance | MySQL Community | us-east-1a | db.t3.micro | 1 Action |

3. RDS Security rules:

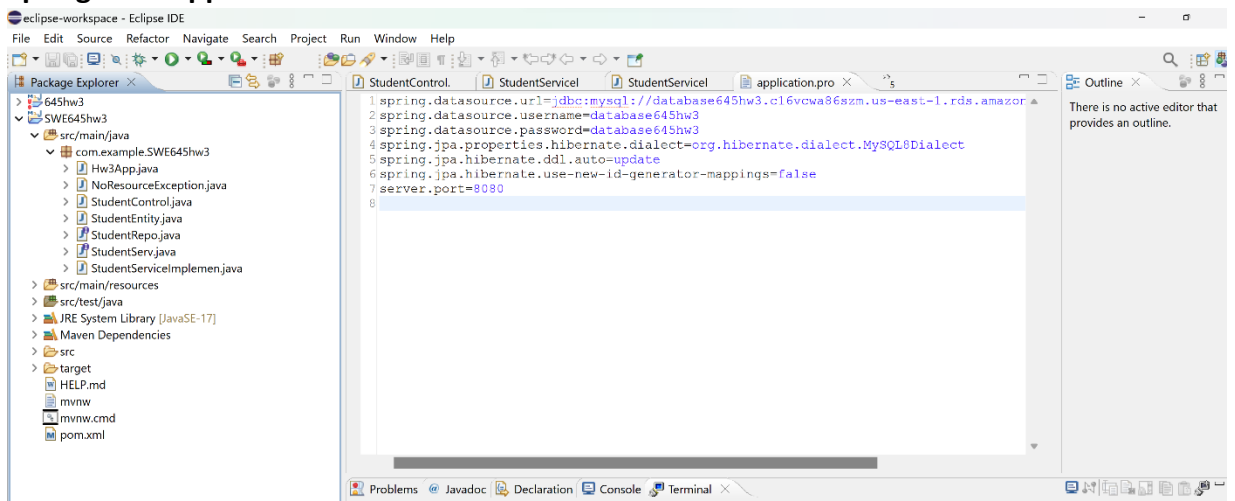
| Security group rules (3) | | |  |
|---|------------------------------|----------------------|---|
| <input type="text" value="Filter by Security group rules"/> | | | < 1 >  |
| Security group | Type | Rule | |
| rds-ec2-3 (sg-0c84986650336b7eb) | EC2 Security Group - Inbound | sg-0c3c09826c99d5f26 | |
| vpc (sg-00f868e0c24d9467f) | CIDR/IP - Inbound | 0.0.0.0/0 | |
| vpc (sg-00f868e0c24d9467f) | CIDR/IP - Outbound | 0.0.0.0/0 | |

Seek

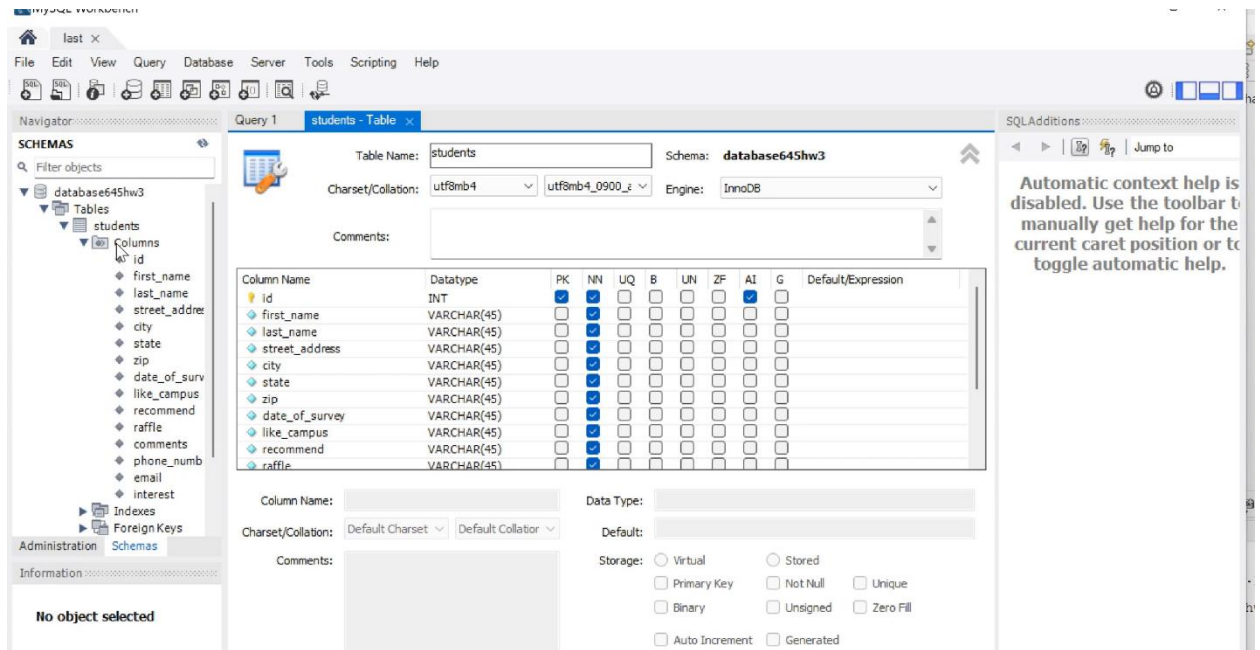
4. RDS endpoint for connecting Database:

| Connectivity & security | | | Monitoring | Logs & events | Configuration | Maintenance & backups | Tags |
|---|--|--|------------|---------------|---------------|-----------------------|------|
| Connectivity & security | | | | | | | |
| Endpoint & port | Networking | Security | | | | | |
| Endpoint database645hw3.c16vcwa86szm.us-east-1.rds.amazonaws.com | Availability Zone us-east-1a | VPC security groups | | | | | |
| Port 3306 | VPC vpc-0c8ed6164661efadb | rds-ec2-3 (sg-0c84986650336b7eb) Active | | | | | |
| | Subnet group default-vpc- | vpc (sg-00f868e0c24d9467f) Active | | | | | |
| | | Publicly accessible | | | | | |

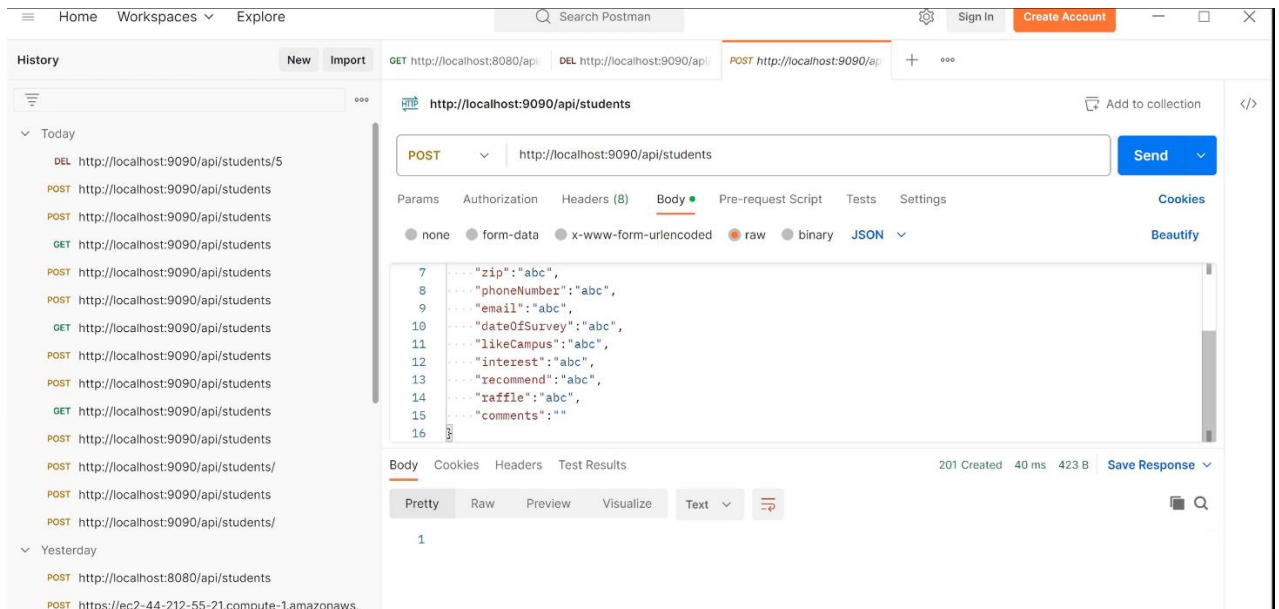
5. Spring Boot Application:



6. MySQL Workbench:



7. Postman for testing GET, POST, DELETE, UPDATE, and get student by id:



8. Docker file:

Code Blame 16 lines (10 loc) · 351 Bytes

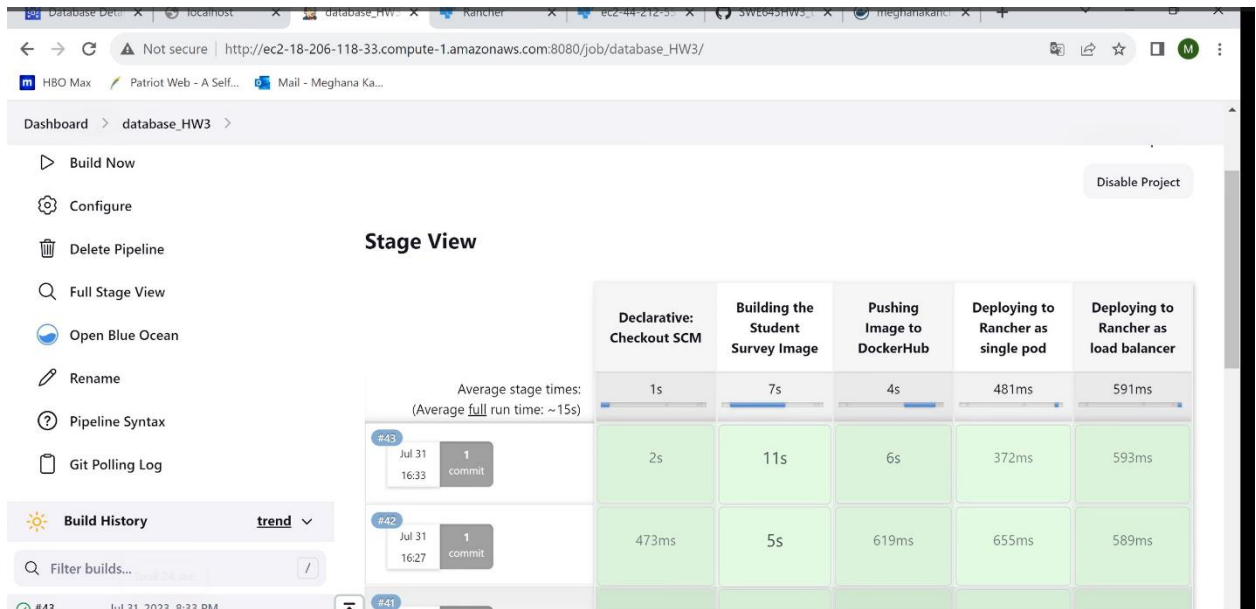
```
1 FROM ubuntu
2 RUN apt-get update && apt-get install -y openjdk-17-jdk && apt-get install -y unzip
3 RUN mkdir database
4
5 #COPY newhw3.war /database
6 COPY 645HW3/target/SWE645hw3-0.0.1-SNAPSHOT.jar /database/newjar.jar
7 #RUN unzip database/newhw3.war
8
9 WORKDIR /database
10
11 CMD ["bash"]
12
13 CMD ["/usr/bin/java", "-jar", "newjar.jar"]
14
15
16 EXPOSE 8080
```

9. Jenkins file:

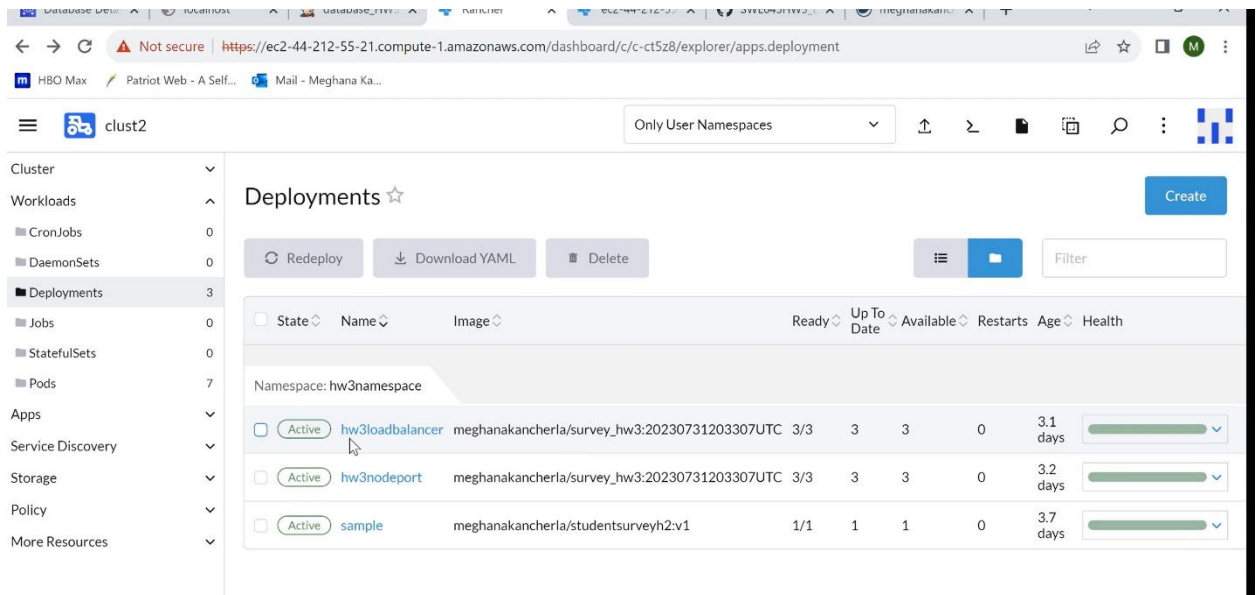
Code Blame 45 lines (43 loc) · 1.54 KB Raw Copy Download Edit View

```
1 // jenkinsfile
2 pipeline{
3     agent any
4     environment {
5         DOCKERHUB_PASS = credentials('docker')
6     }
7     stages {
8         stage("Building the Student Survey Image") {
9             steps {
10                 script {
11                     checkout scm
12
13                     sh 'rm -rf *.war'
14                     sh 'jar -cvf newhw3.war -C 645HW3 .'
15                     sh 'echo ${BUILD_TIMESTAMP}'
16                     sh "docker login -u $DOCKERHUB_PASS_USR -p $DOCKERHUB_PASS_PSW"
17                     sh "docker build -t meghanakancherla/survey_hw3:${BUILD_TIMESTAMP} ."
18
19                 }
20             }
21         }
22         stage("Pushing Image to DockerHub") {
23             steps {
24                 script {
25                     sh 'docker push meghanakancherla/survey_hw3:${BUILD_TIMESTAMP}'
26                 }
27             }
28         }
29         stage("Deploying to Rancher as single pod") {
```

10. Jenkins connection:



11. Rancher:



12. POST accessing using Kubernetes URL:



The screenshot shows a web browser window with the address bar displaying the URL: `https://ec2-44-212-55-21.compute-1.amazonaws.com/k8s/clusters/c-ct5z8/api/v1/namespaces/hw3namespace/services/http:hw3loadbalan...`. The browser's address bar also shows "Not secure" and a lock icon. The main content area of the browser displays a JSON array of six objects, each representing a user record. The records are as follows:

```
[{"id":1,"firstName":"Meghana","lastName":"Kancherla","streetAddress":"Lee Hwy","city":"abc","state":"abc","zip":"abc","phoneNumber":"abc","email":"abc","dateOfSurvey":"abc","likeCampus":"abc","interest":"abc","recommend":"abc","raffle":"abc","comments":""}, {"id":2,"firstName":"Hemanth","lastName":"Sani","streetAddress":"Lee Hwy","city":"abc","state":"abc","zip":"abc","phoneNumber":"abc","email":"abc","dateOfSurvey":"abc","likeCampus":"abc","interest":"abc","recommend":"abc","raffle":"abc","comments":""}, {"id":3,"firstName":"Roshan","lastName":"Vemula","streetAddress":"Lee Hwy","city":"abc","state":"abc","zip":"abc","phoneNumber":"abc","email":"abc","dateOfSurvey":"abc","likeCampus":"abc","interest":"abc","recommend":"abc","raffle":"abc","comments":""}, {"id":4,"firstName":"Rishitha","lastName":"Kavuru","streetAddress":"Lee Hwy","city":"abc","state":"abc","zip":"abc","phoneNumber":"abc","email":"abc","dateOfSurvey":"abc","likeCampus":"abc","interest":"abc","recommend":"abc","raffle":"abc","comments":""}, {"id":6,"firstName":"Sample 2","lastName":"last 2","streetAddress":"Lee Hwy","city":"abc","state":"abc","zip":"abc","phoneNumber":"abc","email":"abc","dateOfSurvey":"abc","likeCampus":"abc","interest":"abc","recommend":"abc","raffle":"abc","comments":""}]
```