CAPSTONE PROJECT

ONLINE SALOON SERVICE APP

TEAM-C

BATCH-8 JAVA-J2EE

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Date: 2September,2024
Batch Mentor: Mr.Ramakrishna Sir

Problem Statement:

Develop a distributed Online Salon Service using Spring Microservices where:

• Admin can manage services, staff, bookings, and customers.
• Users can browse available services, book appointments, and manage their bookings.

Admin should be able to:

1.Admin Dashboard:

- **A consolidated view of all operations handled by the Admin.**
- **Provides access to manage services, staff, bookings, and customers**

2.Service Management should be able to:

- **Admin can perform CRUD operations on salon services through the Service Management Microservice.**

3.Staff Management should be able to:

- **Admin can manage staff information and their service assignments through the Staff Management Microservice.**

4.Booking Management should be able to:

- **Admin can monitor and modify bookings through the Booking Management Microservice.**
- **Admin can reassign staff to bookings and update booking statuses.**

5.Customer Management should be able to:

- **Admin can view and manage customer profiles and booking history.**

6.User should be able to:

1.User Registration & Authentication:

- **Users can register and log in using the Authentication Service.**
- **JWT tokens are used to secure API access.**

2.Service Browsing:

- **Users can browse available salon services through the Service Management Microservice.**

3.Appointment Booking:

- **Users can book appointments, specifying their preferred service, date, time, and staff.**
- **The Booking Management Microservice ensures that the booking is valid and staff are available.**

4.Booking Management:

- **Users can view, modify, or cancel their appointments via the Booking Management Microservice.**
- **Notifications are sent for booking confirmations and reminders.**

Use Case Diagram for Online Salon service:

Online Salon Service:

Customer | ------> (Book Appointment)
------> (View Services)

Staff | ------> (Manage Schedule)
------> (Update Availability)

Admin ------> (Manage Users)
------> (Manage Staff)
(Booking)
(Manage Services)

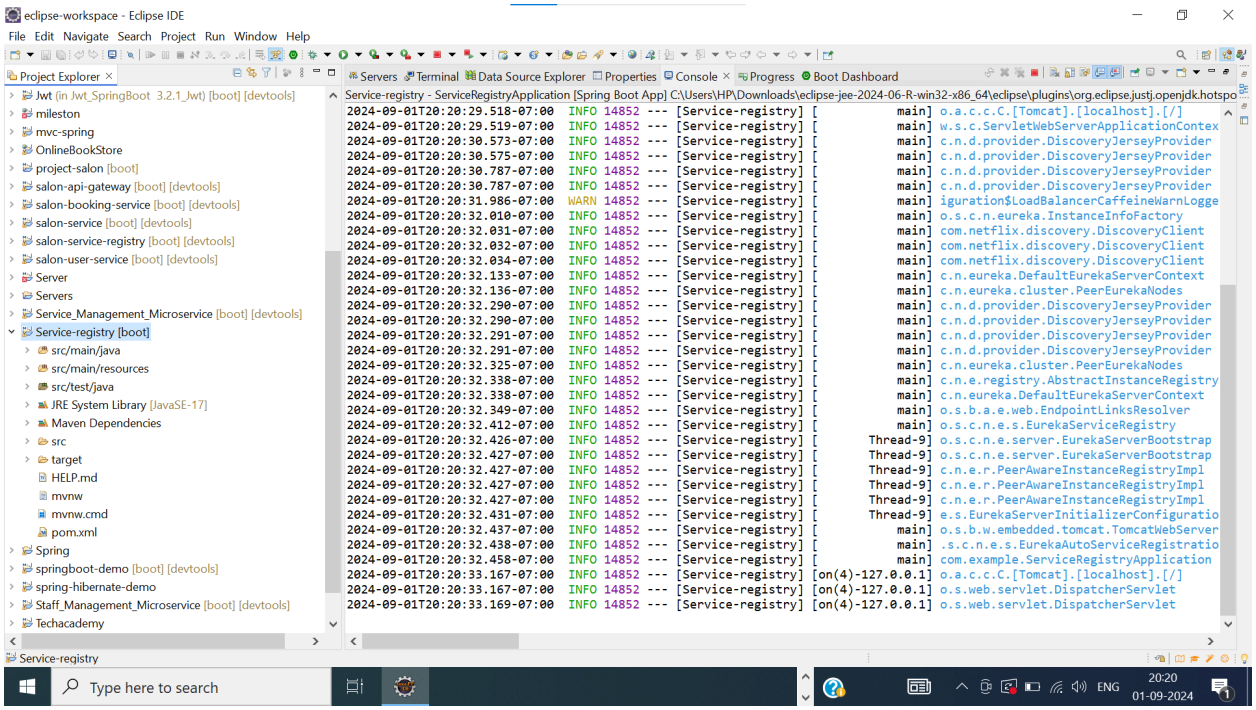
UML Flowchart for Online Salon Service

Customer --------> (Book Appointment) --------> BookingService
Staff --------> (Manage Schedule) --------> StaffService
Admin --------> (Manage Users) --------> UserService

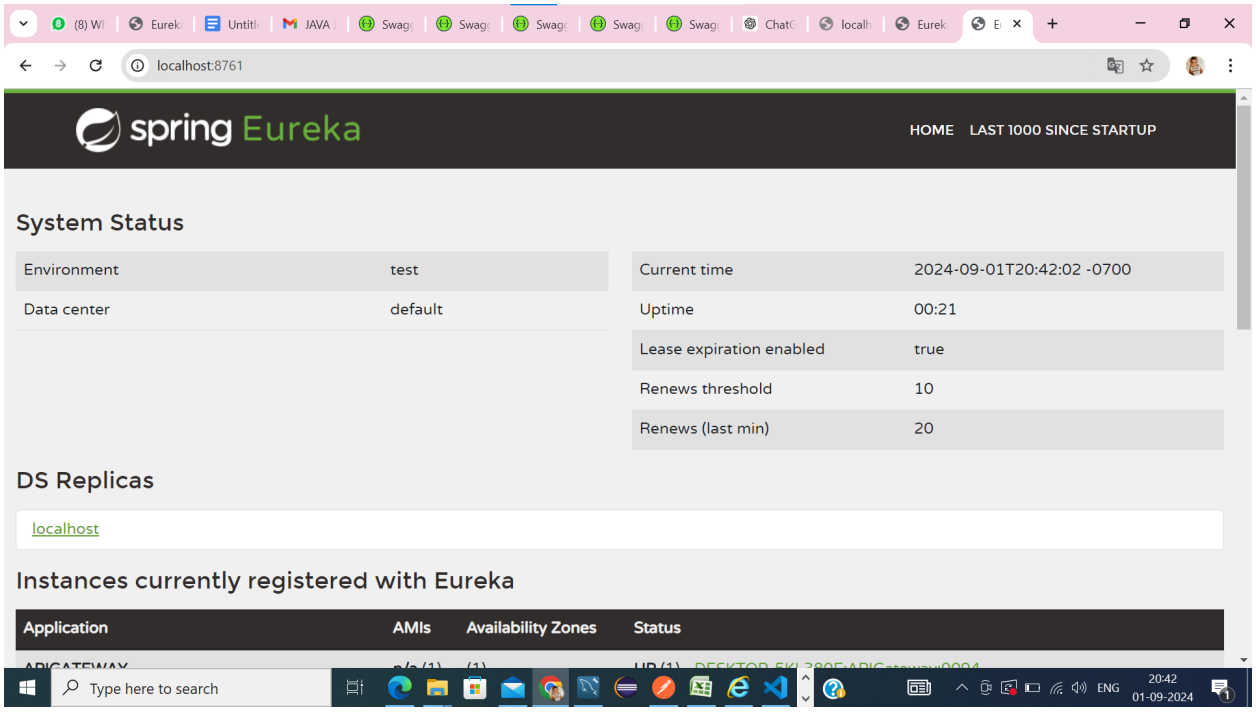
SpringBootApp-Backend:

Service Registry:

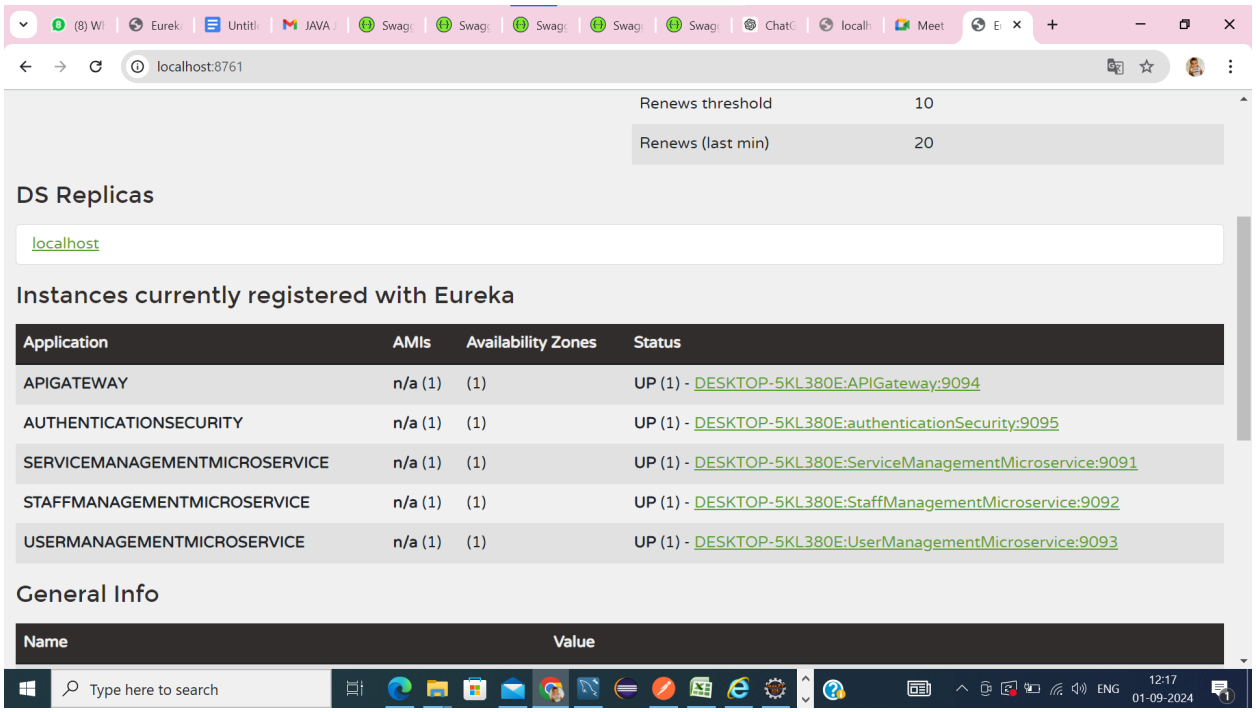
Running the Application as SpringBoot Application:



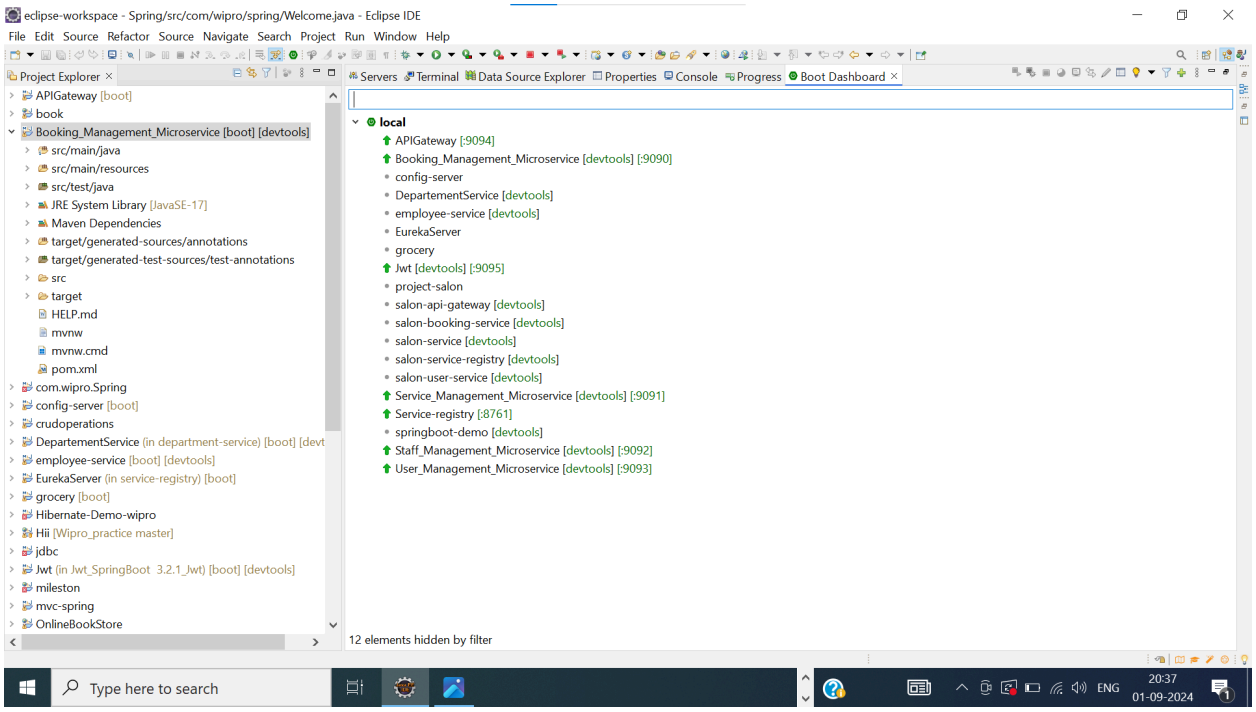
Eureka server:



All microservices are existed with Eureka server:

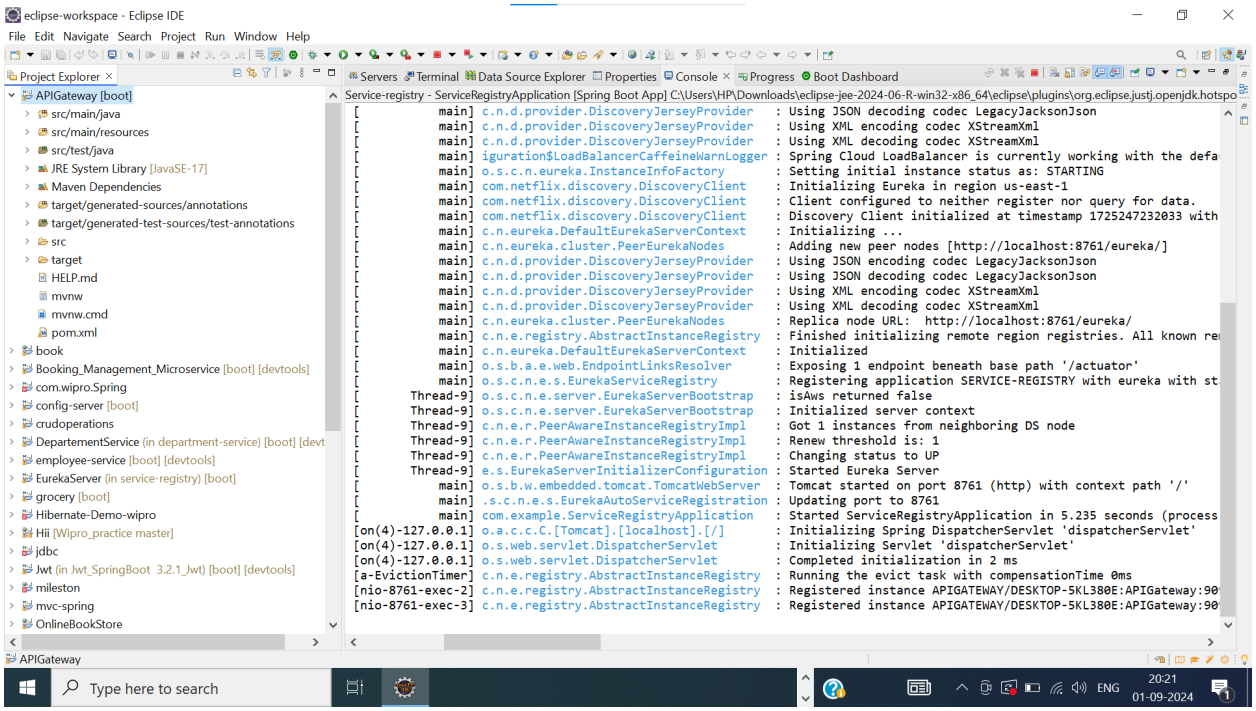


All microservices are registered in eclipse BootDashboard :



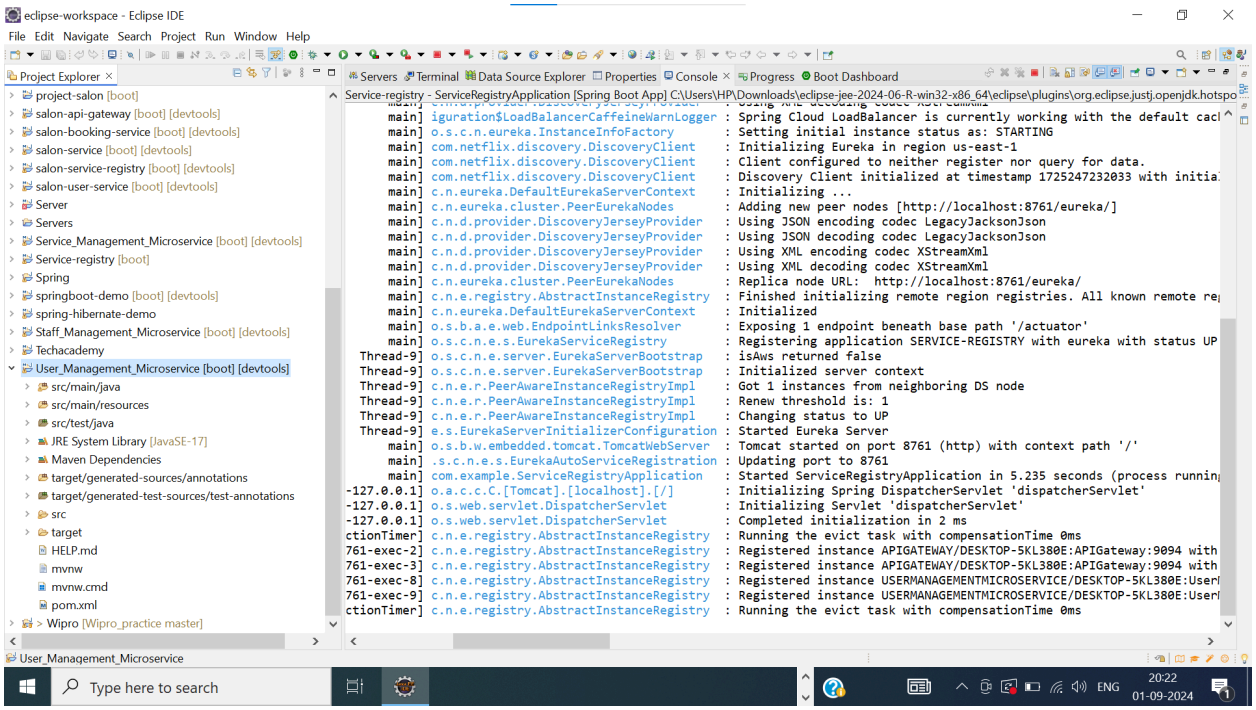
APIGateway:

Running as the spring boot application:

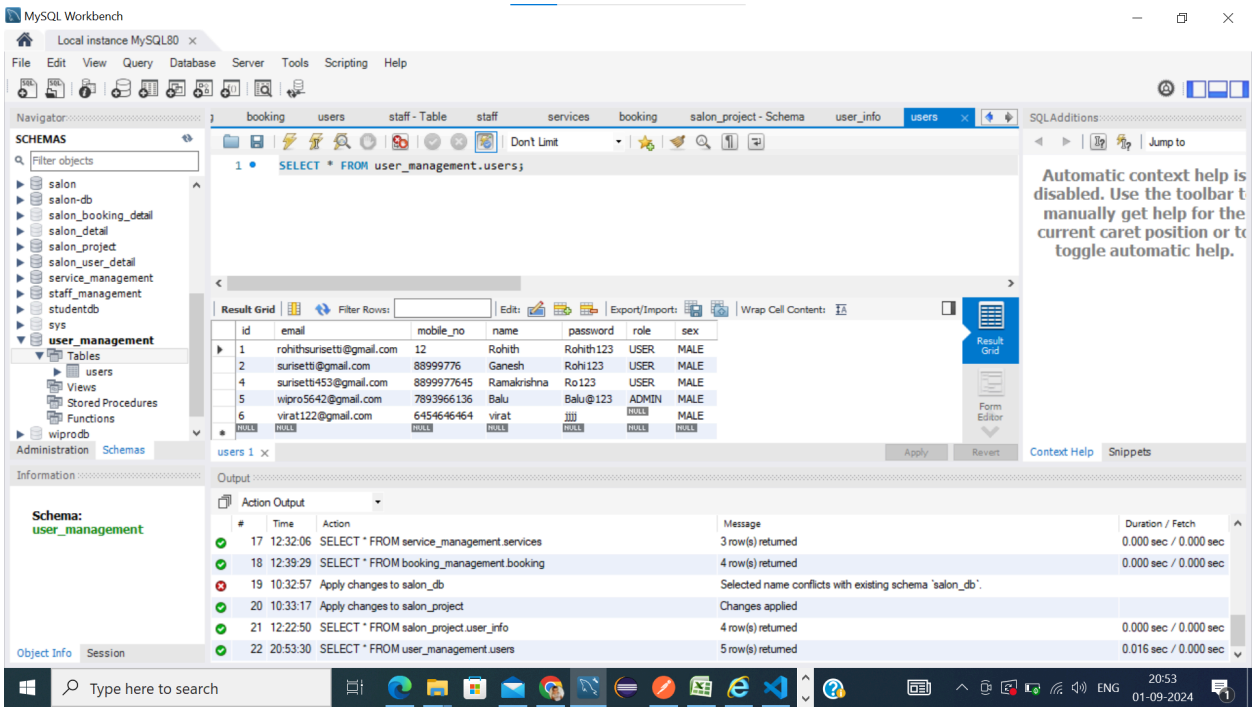


User_Management_Microservice:

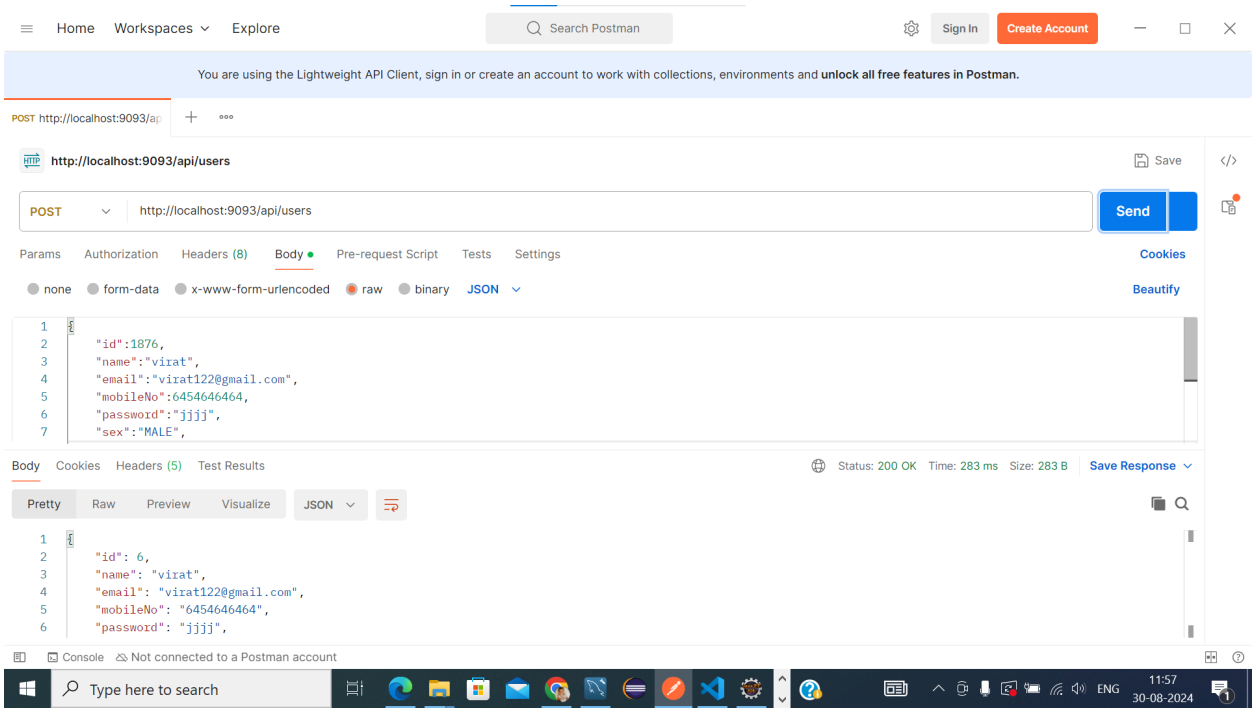
Running as the spring boot application in eclipse:



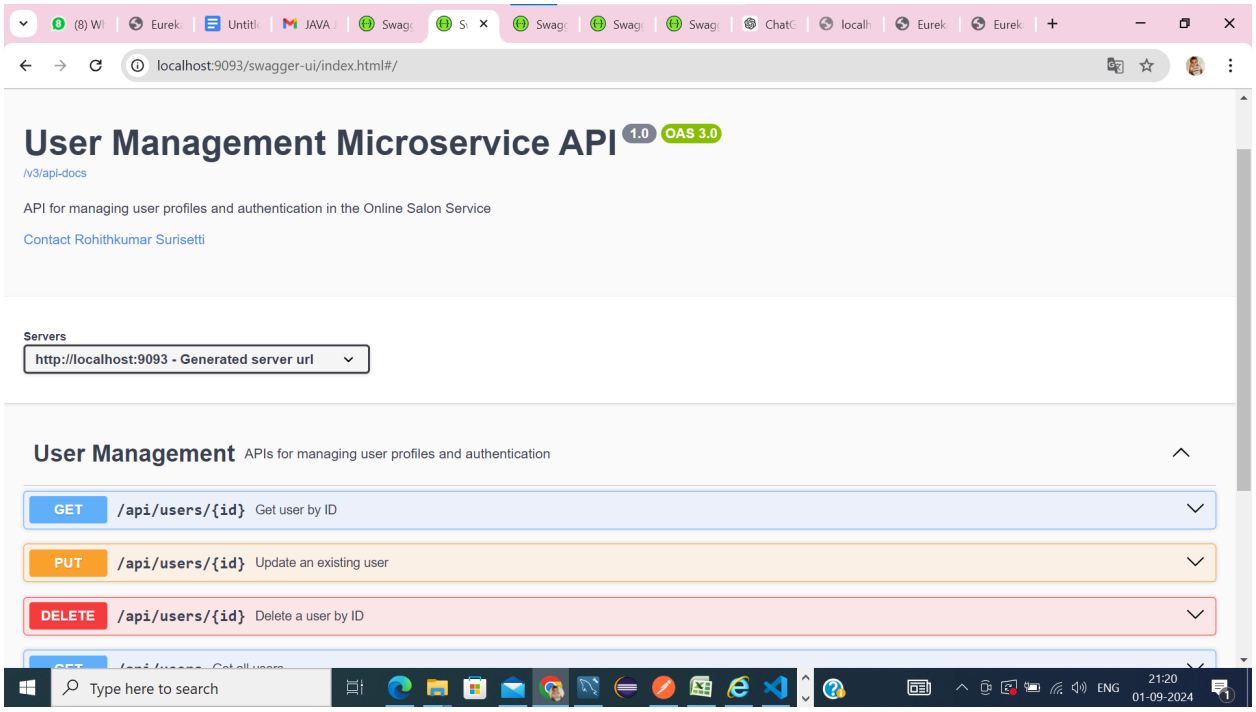
Data base for user_management_microservice in sql workbench:

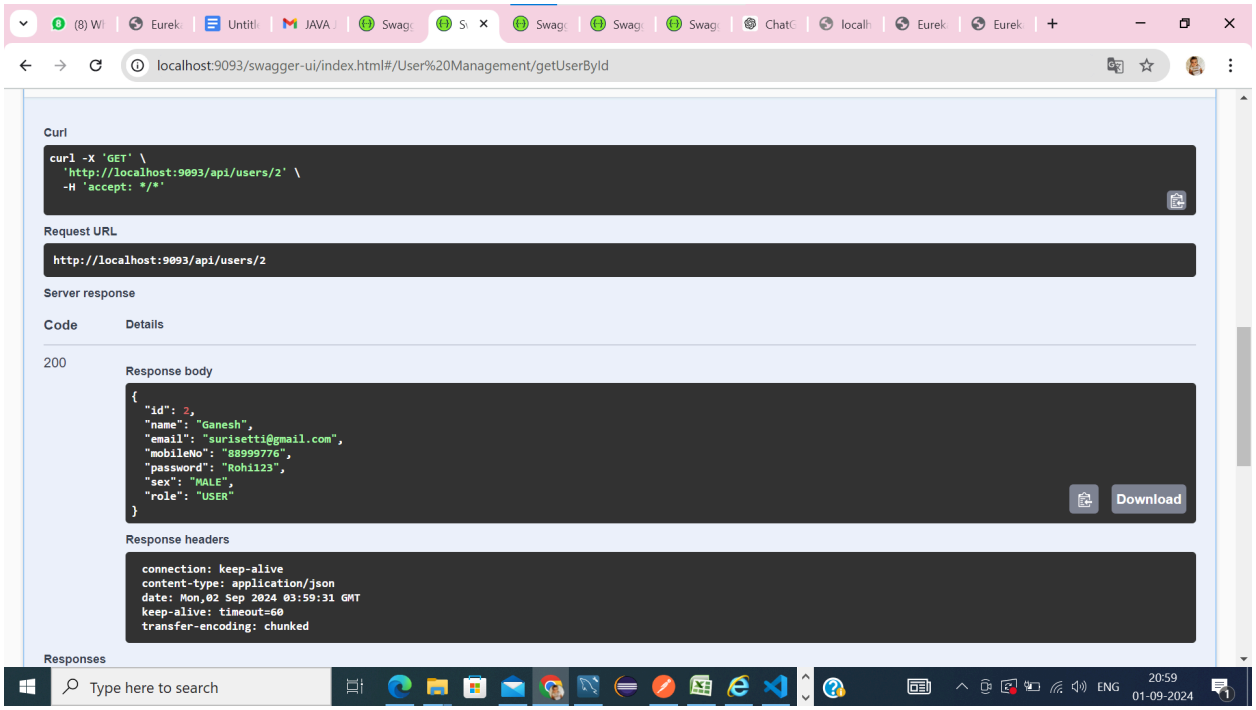


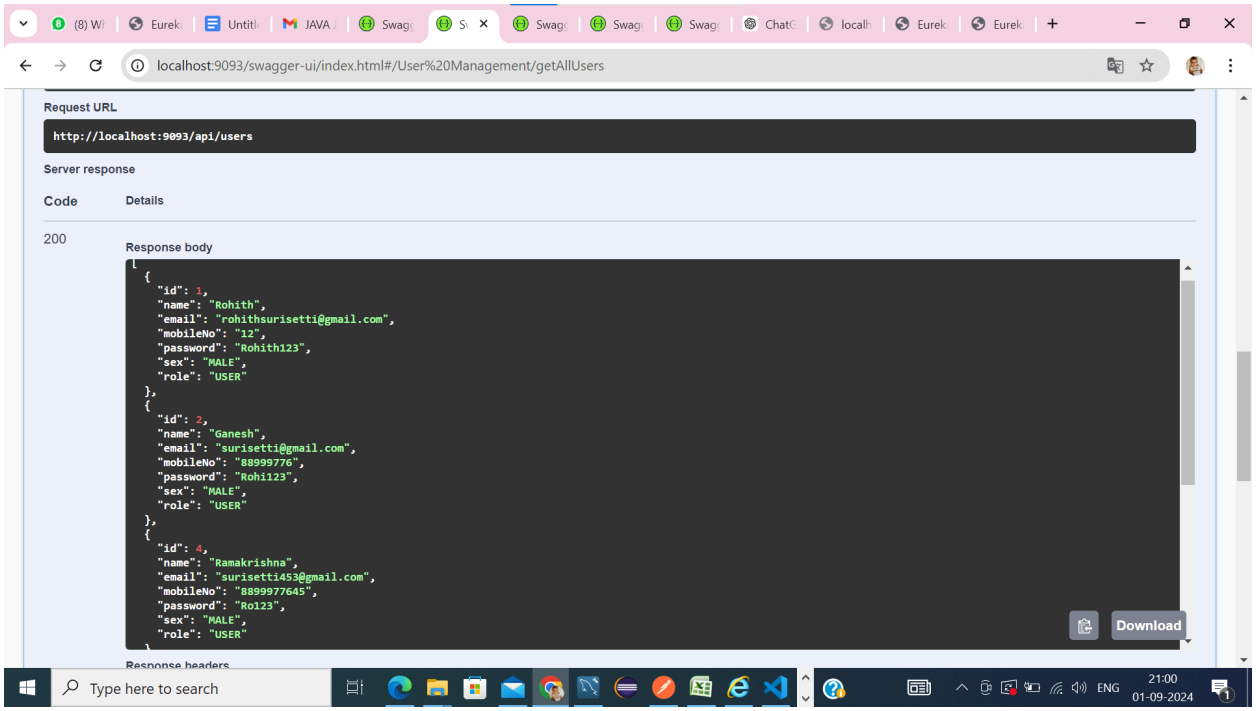
Crud operations using post for user management microservice:



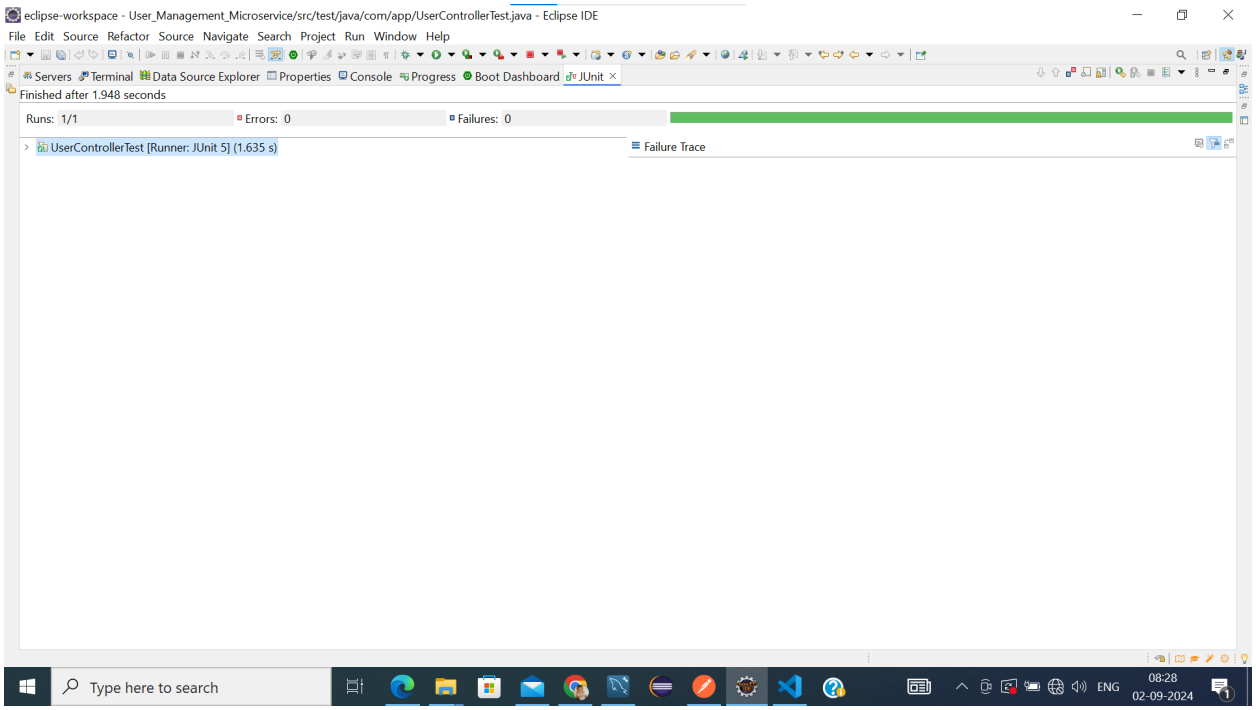
By using Swagger:





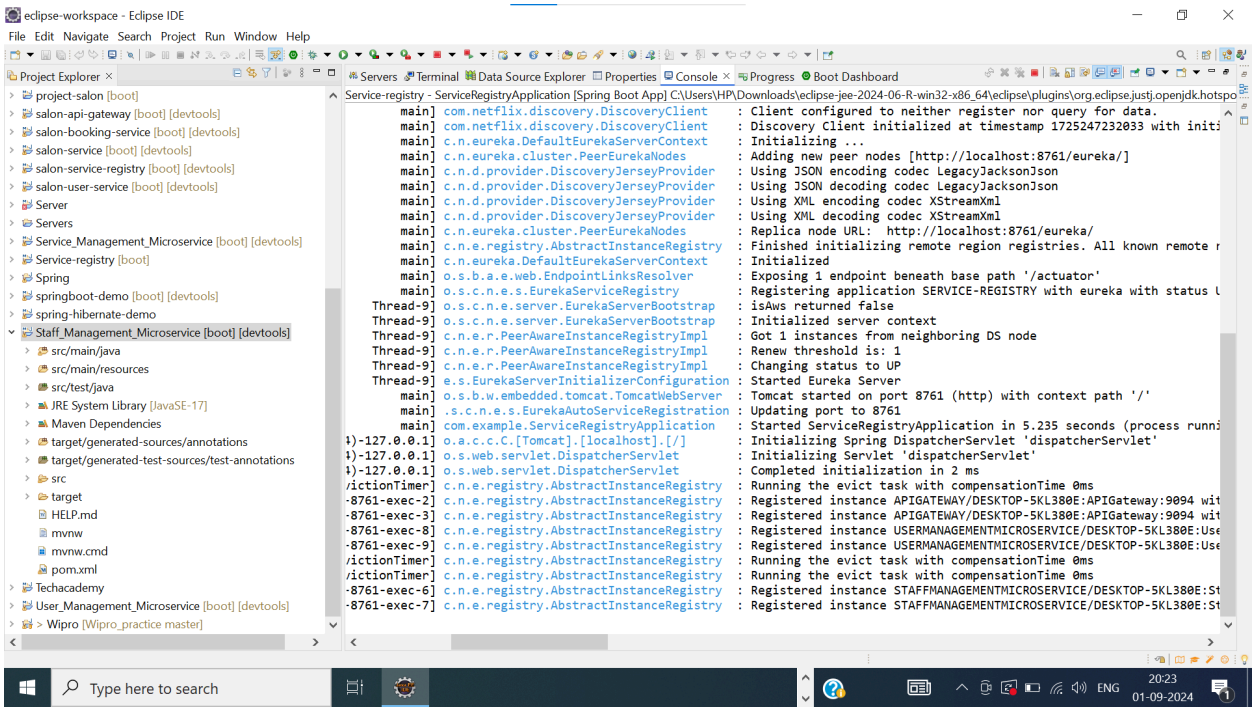


JUNIT Testing for User_Management_MicroService:

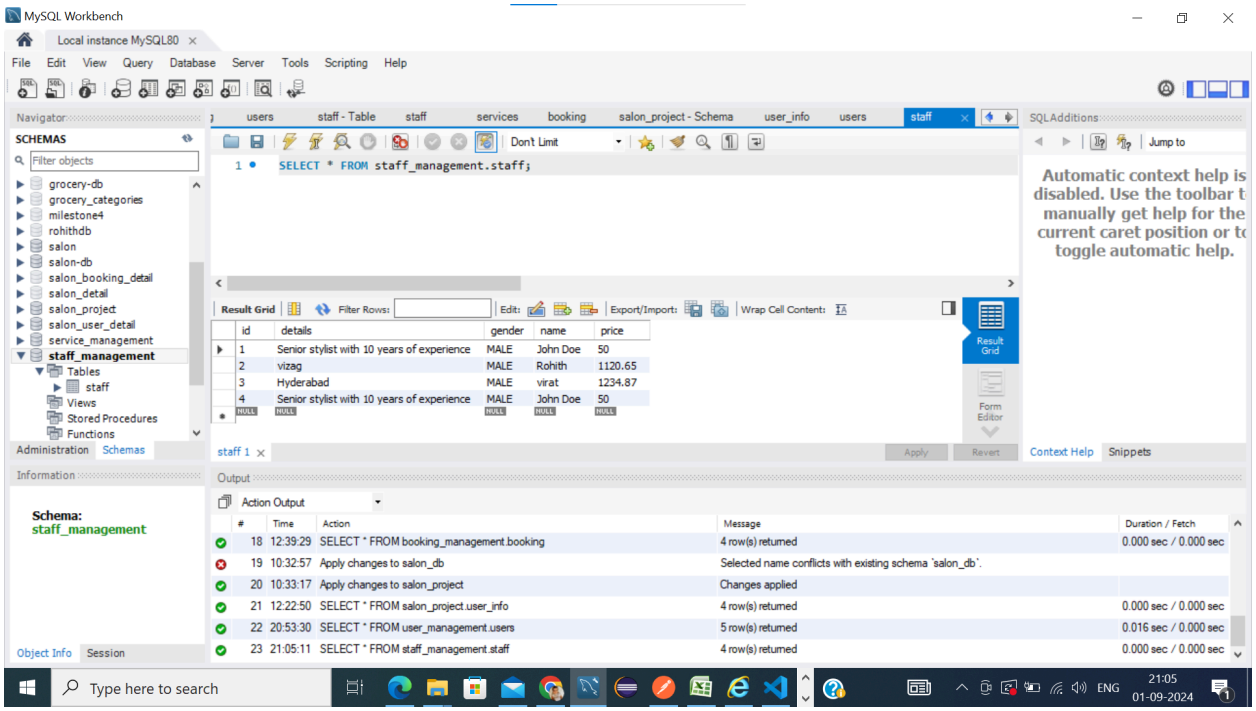


Staff_Management_Microservice:

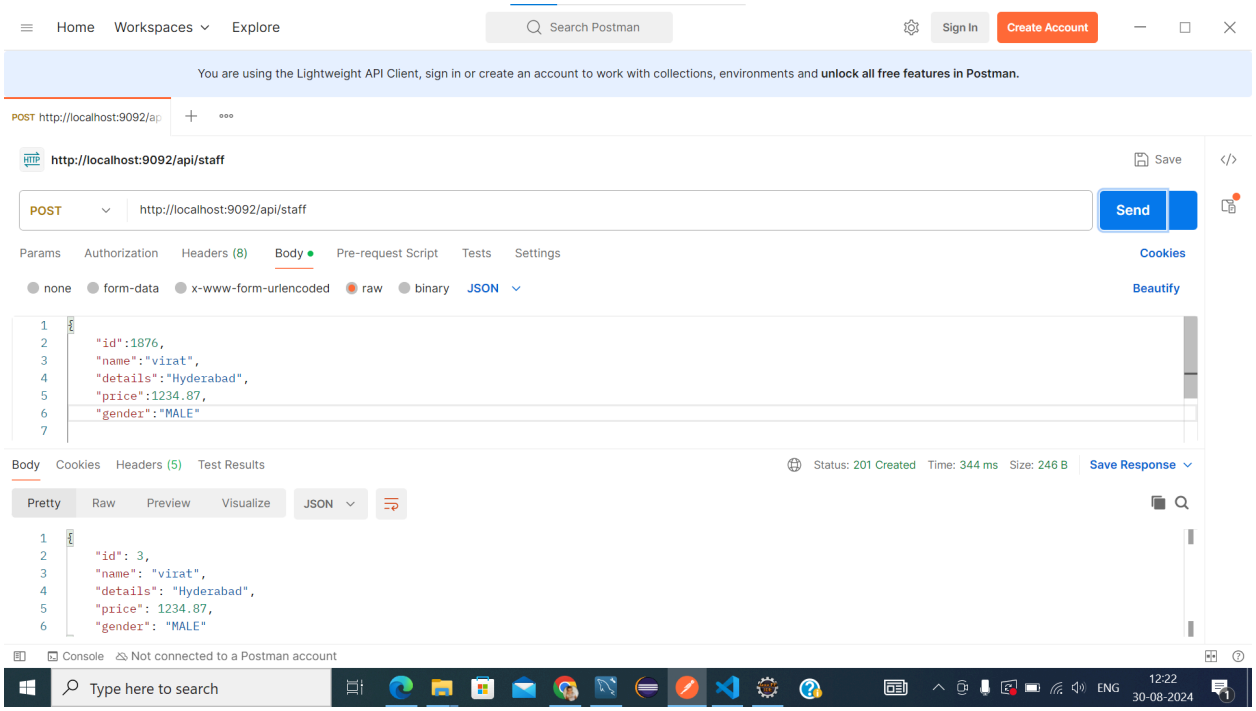
Running as the SpringBoot Application in the Eclipse IDE:



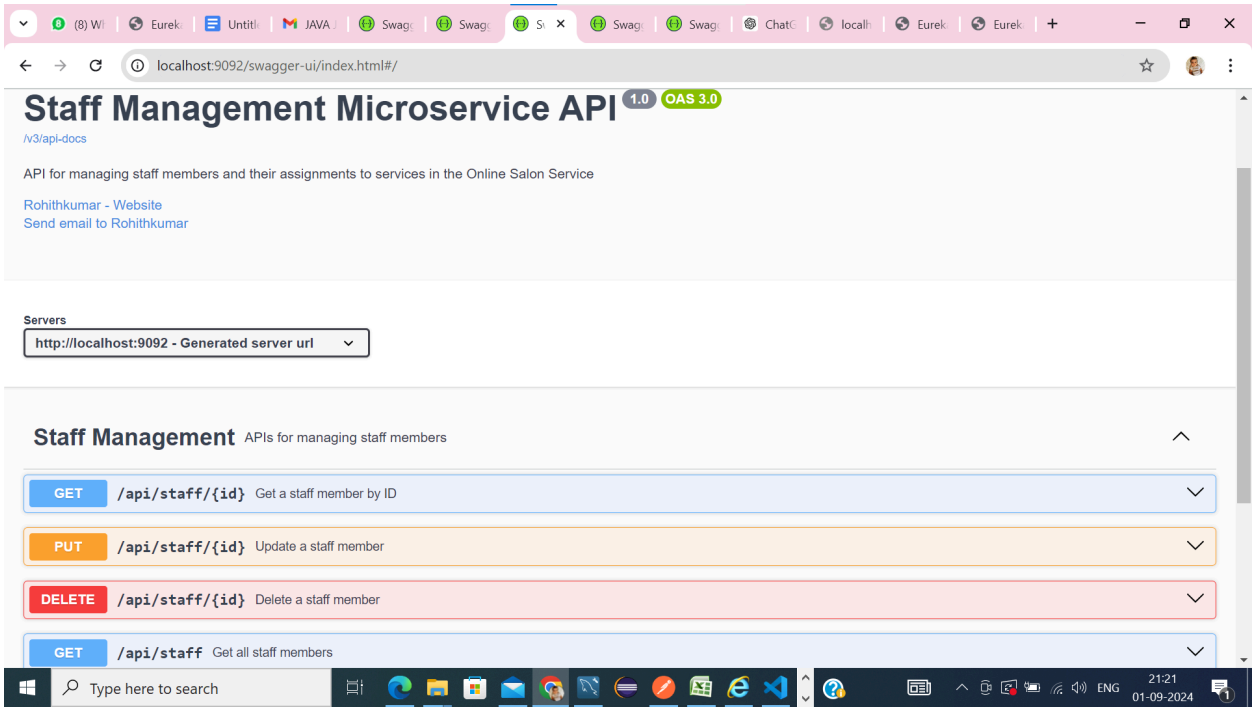
Staff_Management_Microservice Database in the Sql Work bench:

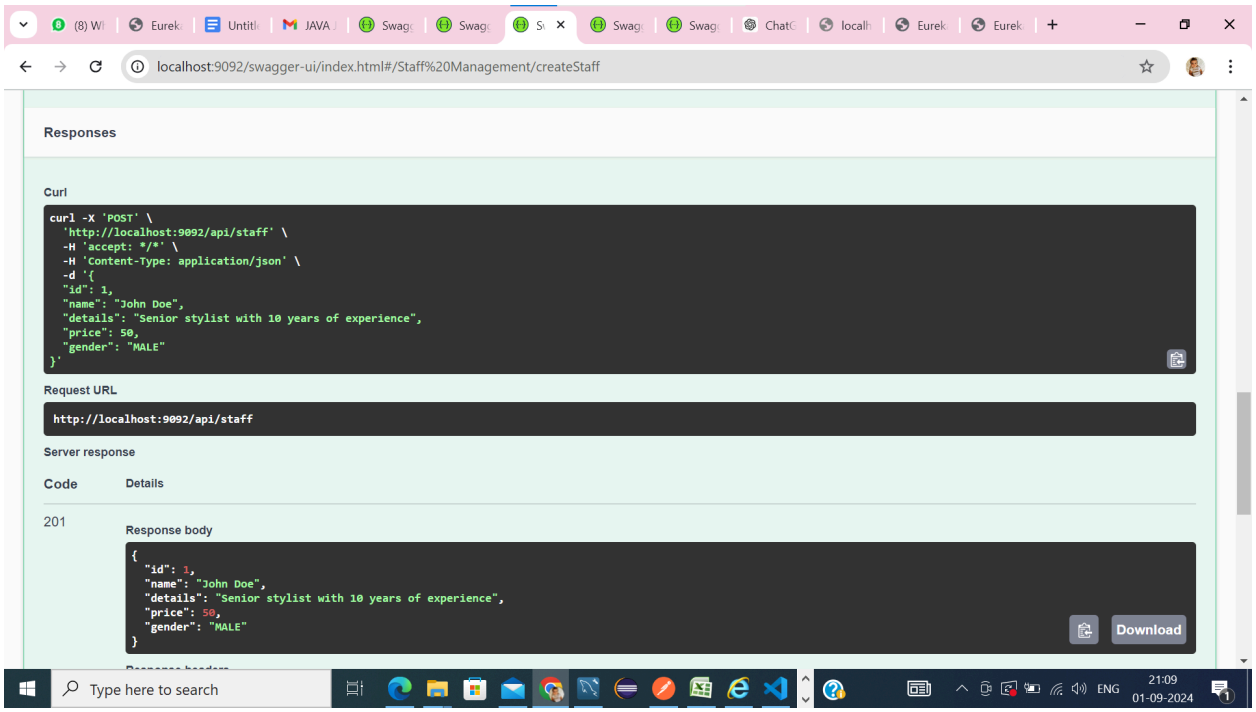


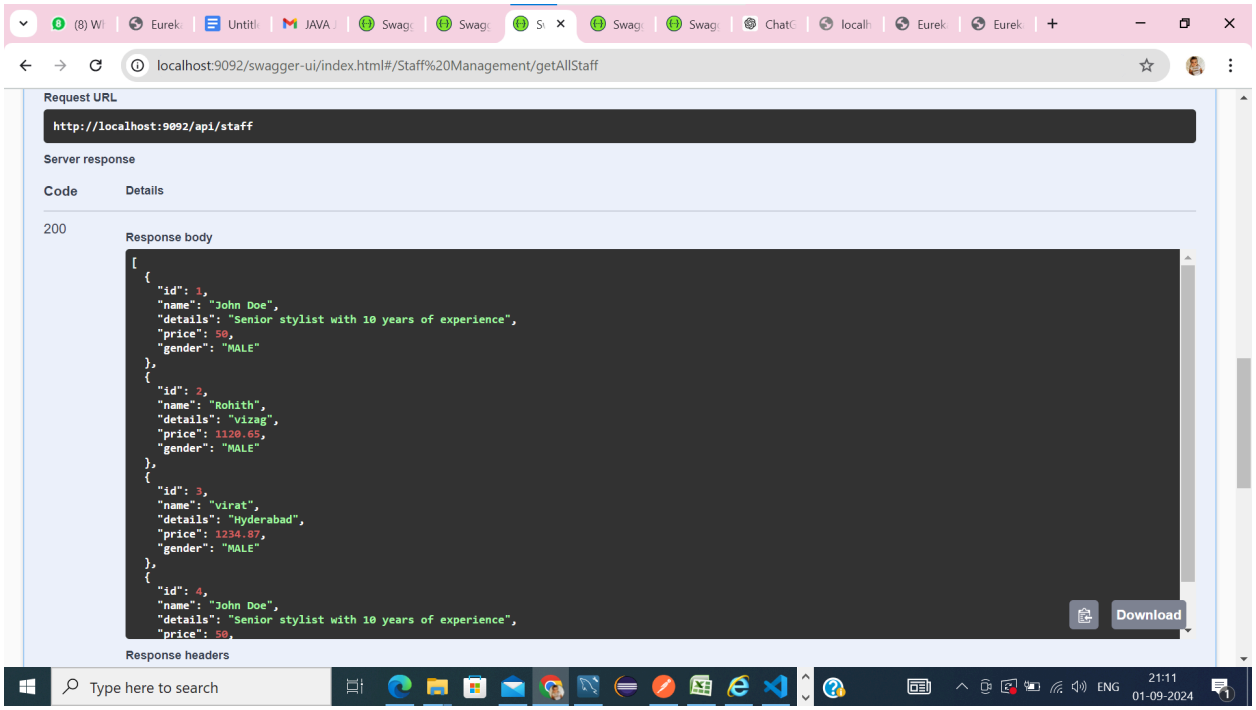
Crud operations for staff management by using POSTMAN:



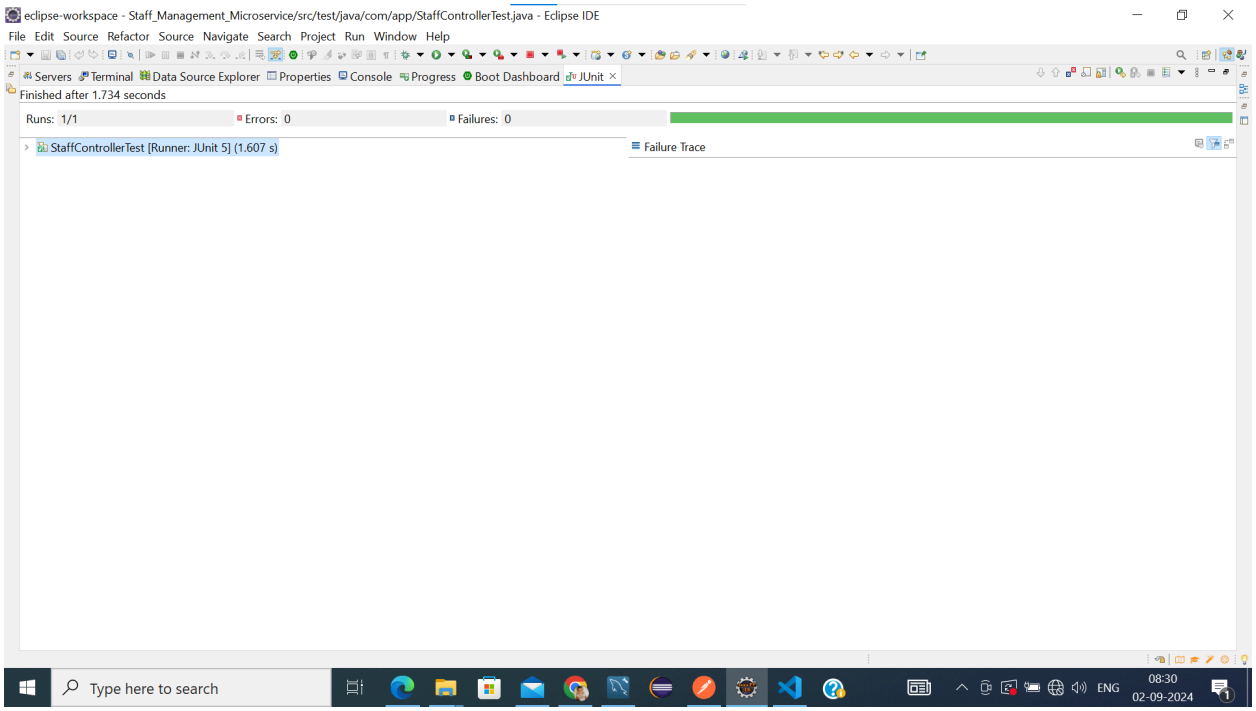
CRUD operations by using SWAGGER:





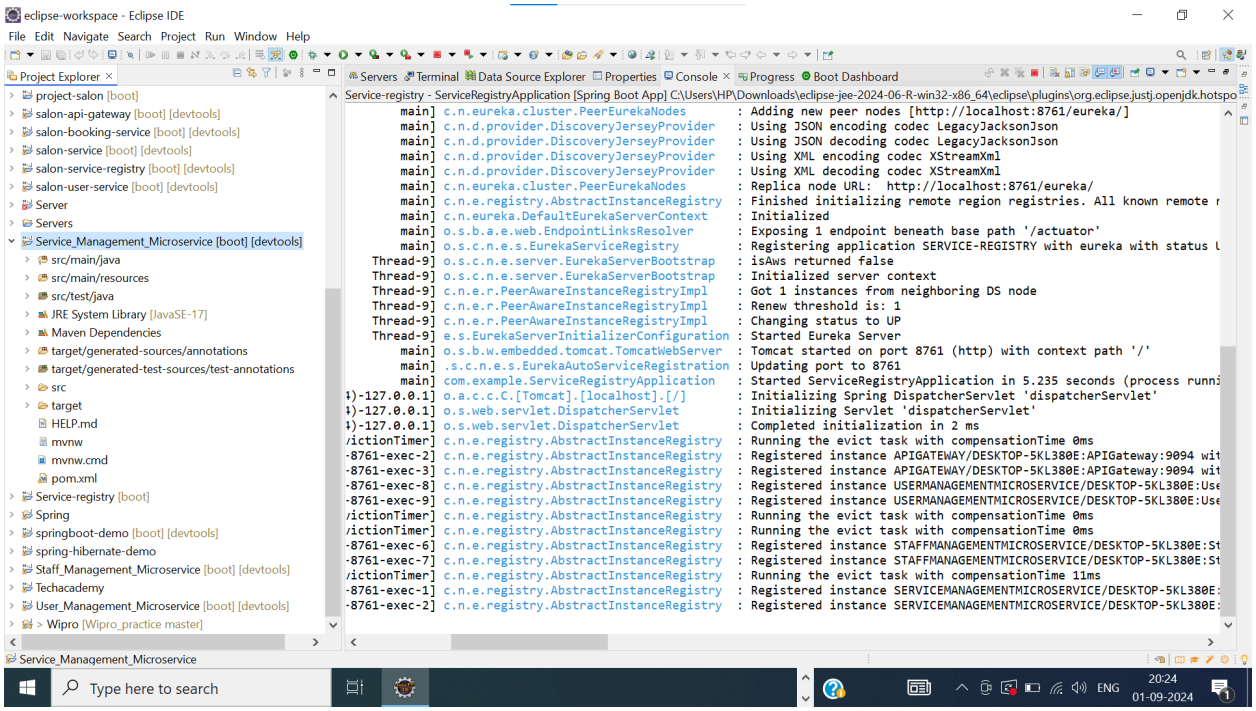


JUNIT Testing for Staff_Management_Microservice:

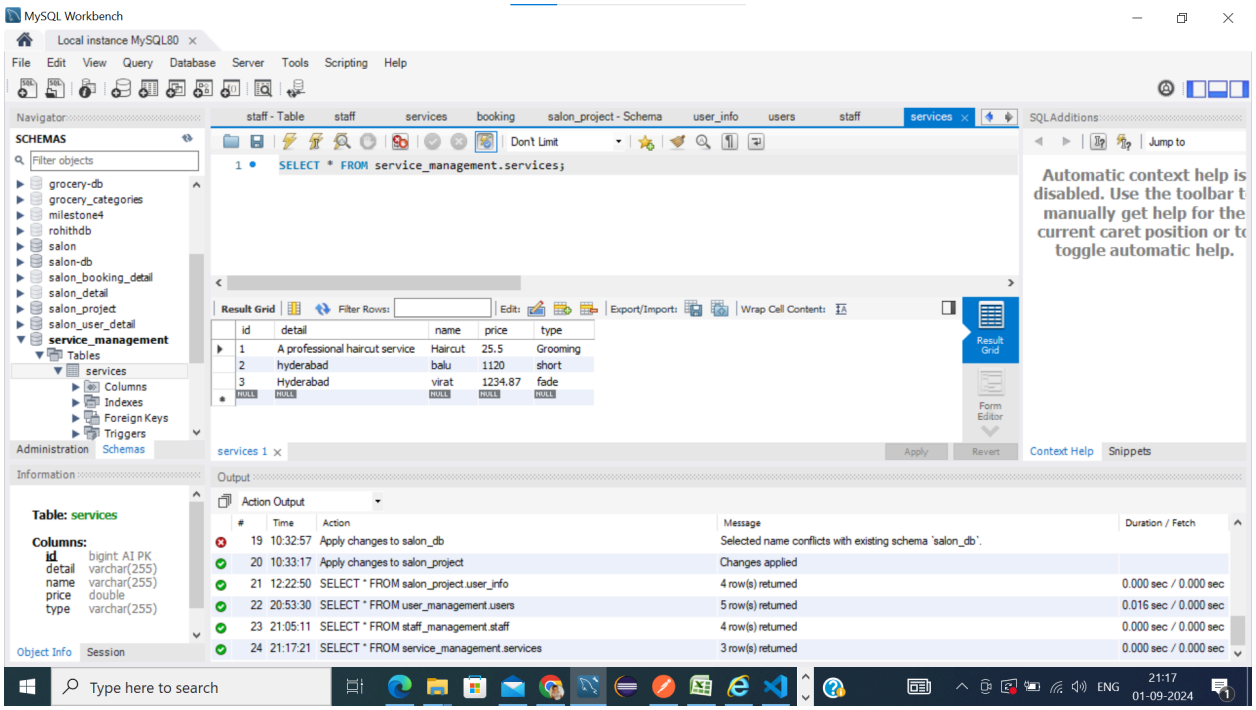


Service_Management_Microservice:

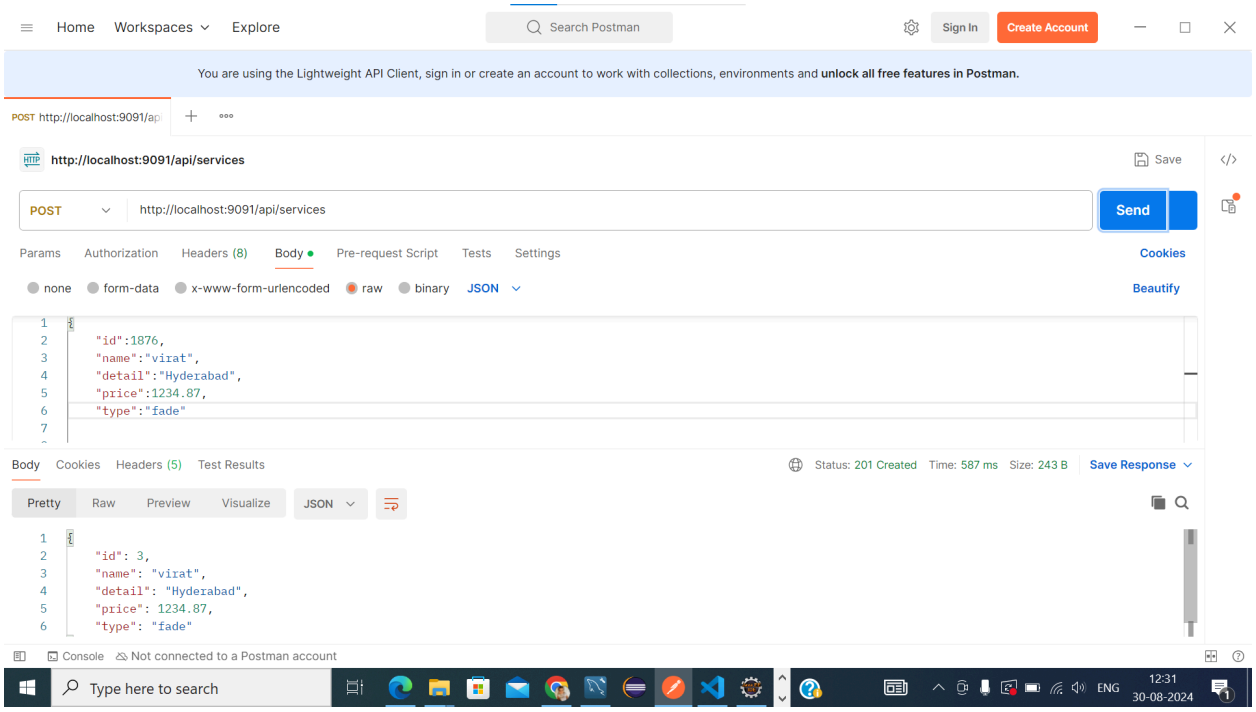
Running the Service_Management_Microservice as SpringBoot Application in Eclipse IDE:



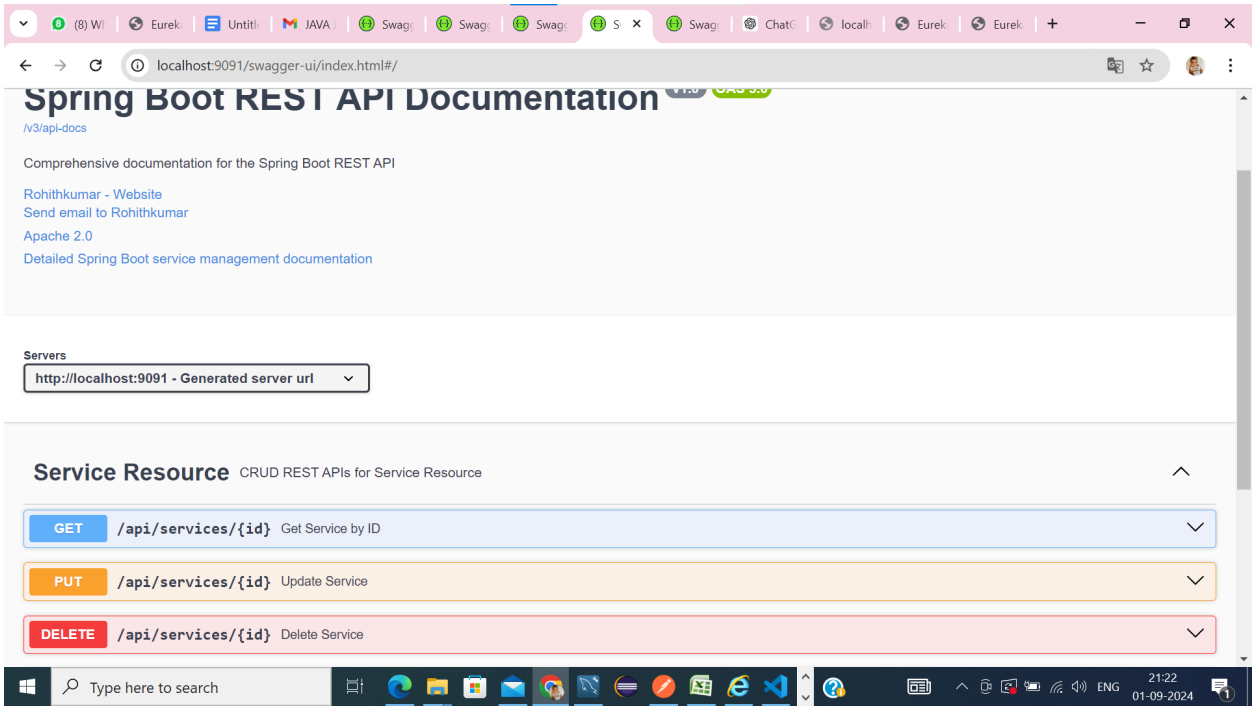
Creating Database for Service_Management_Microservice in Sql workbench:

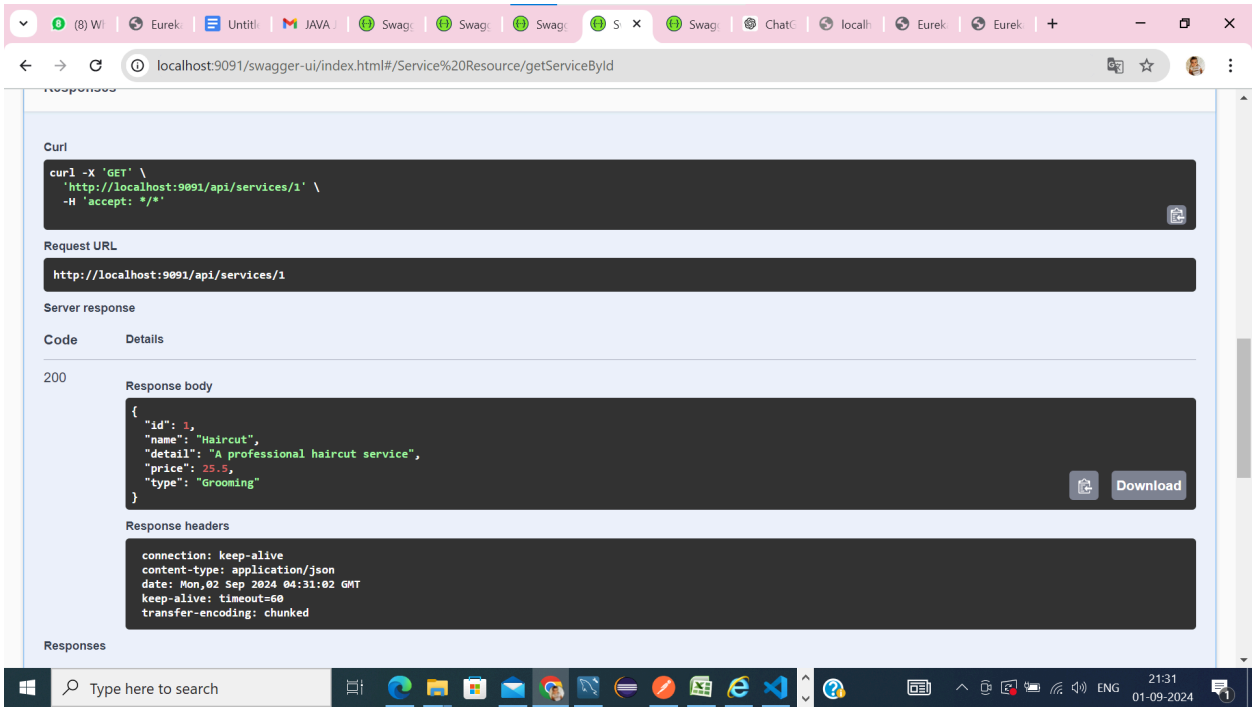


Crud operations by using the POSTMAN:



CRUD Operations by using SWAGGER:


localhost:9091/swagger-ui/index.html#/
Spring Boot REST API Documentation
/v3/api-docs
Comprehensive documentation for the Spring Boot REST API
Rohithkumar - Website
Send email to Rohithkumar
Apache 2.0
Detailed Spring Boot service management documentation
Servers
http://localhost:9091 - Generated server url
Service Resource CRUD REST APIs for Service Resource
GET /api/services/{id} Get Service by ID
PUT /api/services/{id} Update Service
DELETE /api/services/{id} Delete Service
Type here to search
ENG
21:22
01-09-2024


localhost:9091/swagger-ui/index.html#/Service%20Resource/getServiceById
Curl
curl -X 'GET' \
'http://localhost:9091/api/services/1' \
-H 'accept: */*'
Request URL
http://localhost:9091/api/services/1
Server response
Code
Details
200
Response body
{
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}
Download
Response headers
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Responses
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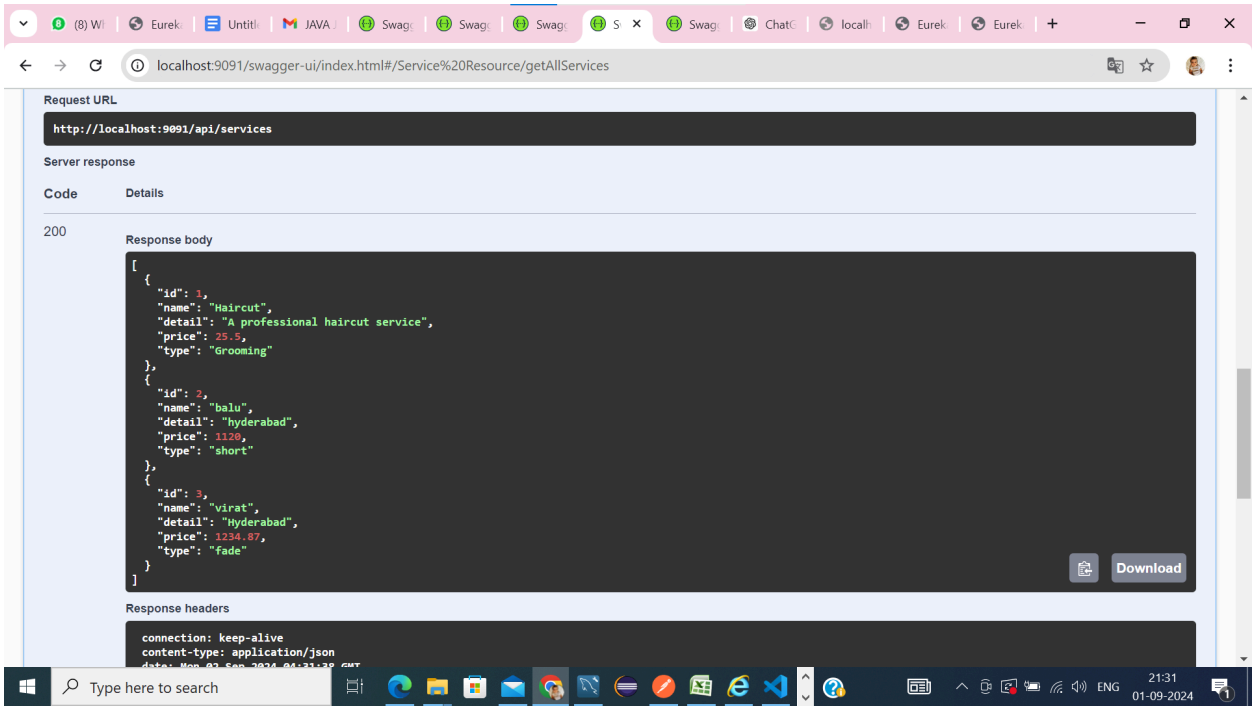
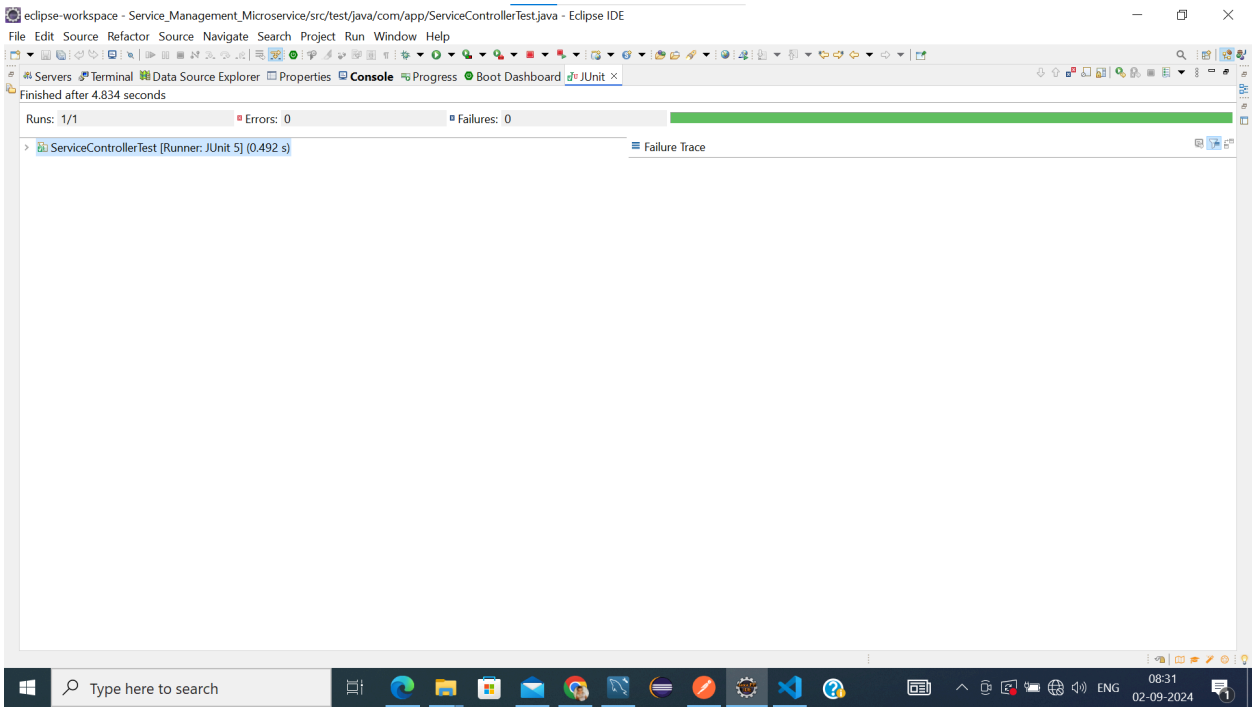
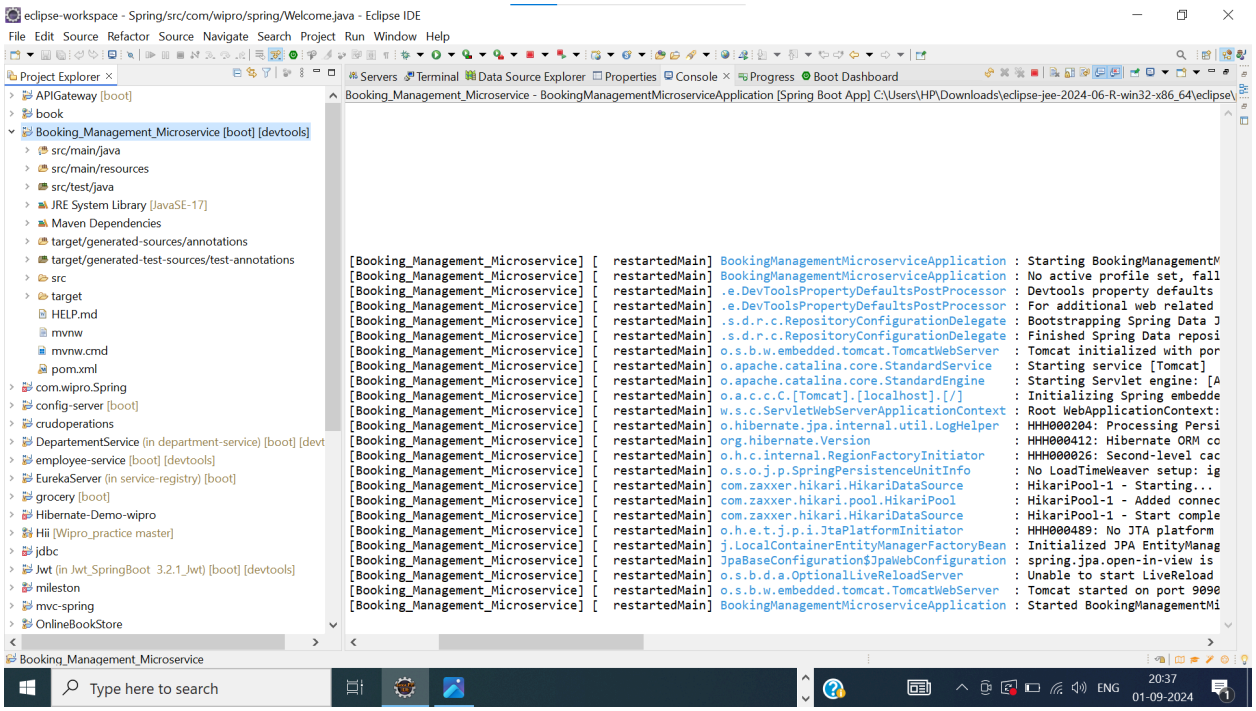


JUNIT Testing For Service_Management_MicroService:

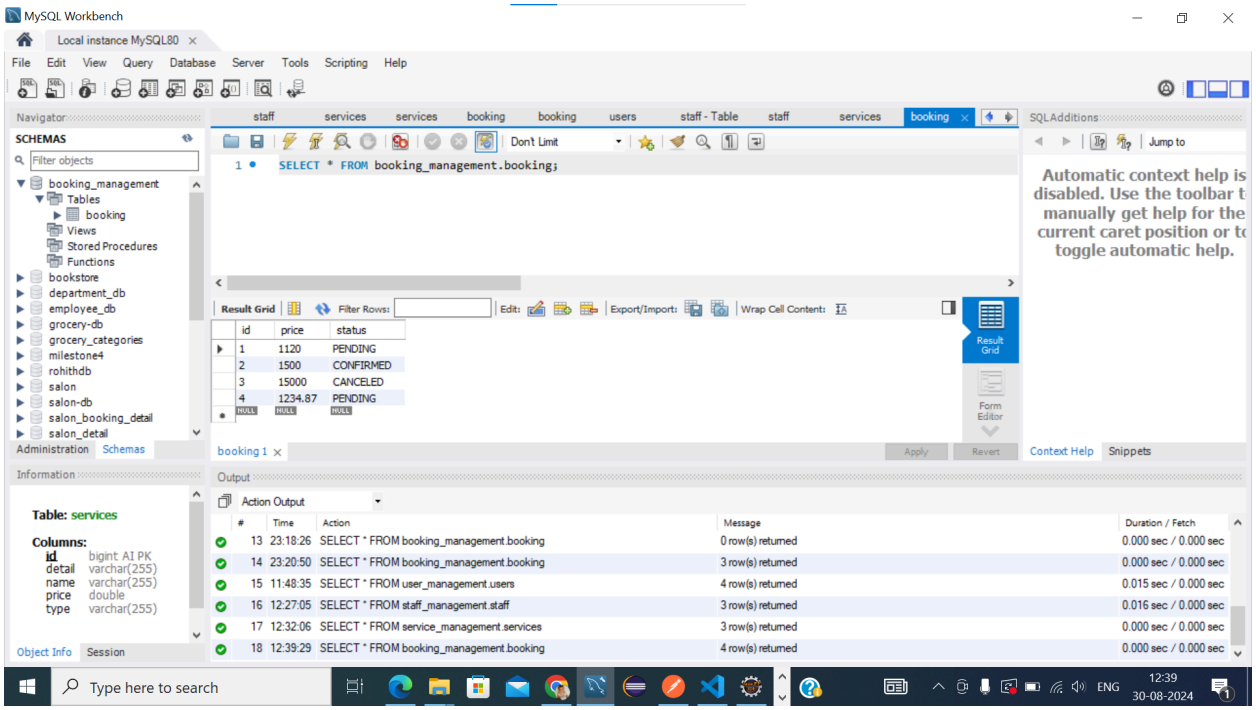


Booking_Management_Microservice:

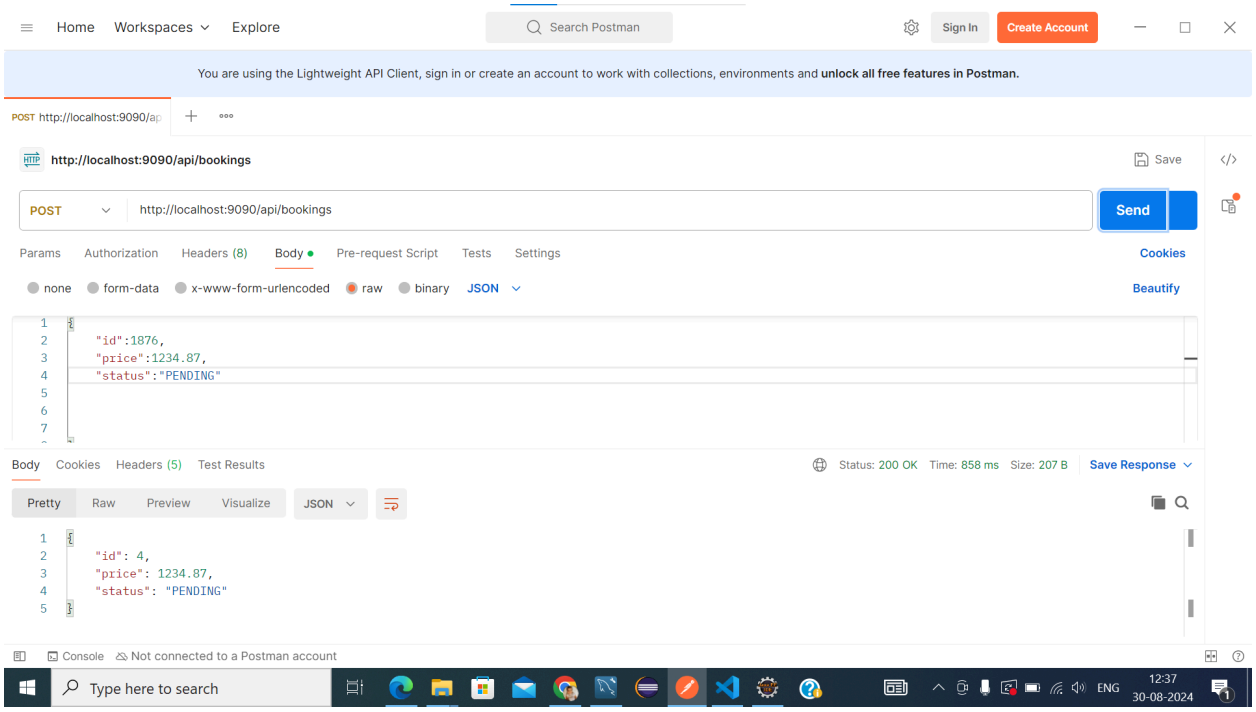
Booking_Management_Microservice Running as the SpringBootApplication in Eclipse IDE:



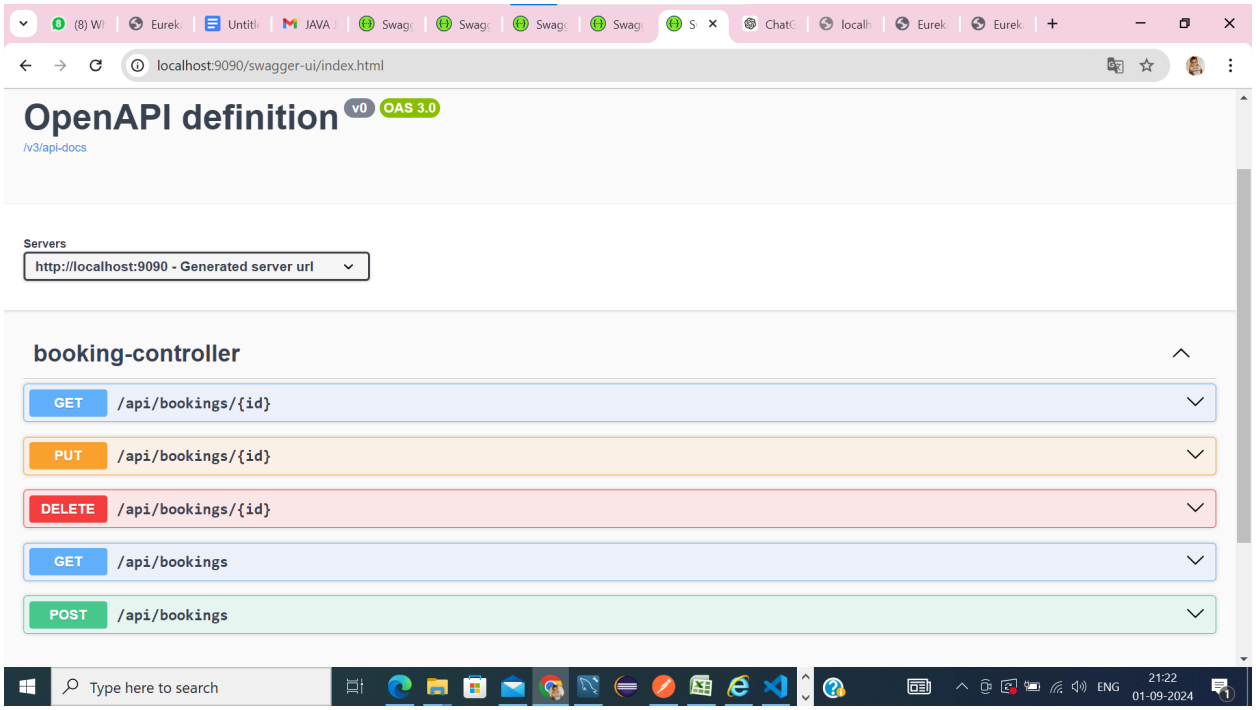
Creating DataBase for Booking_Management_Microservice in sql WorkBench:

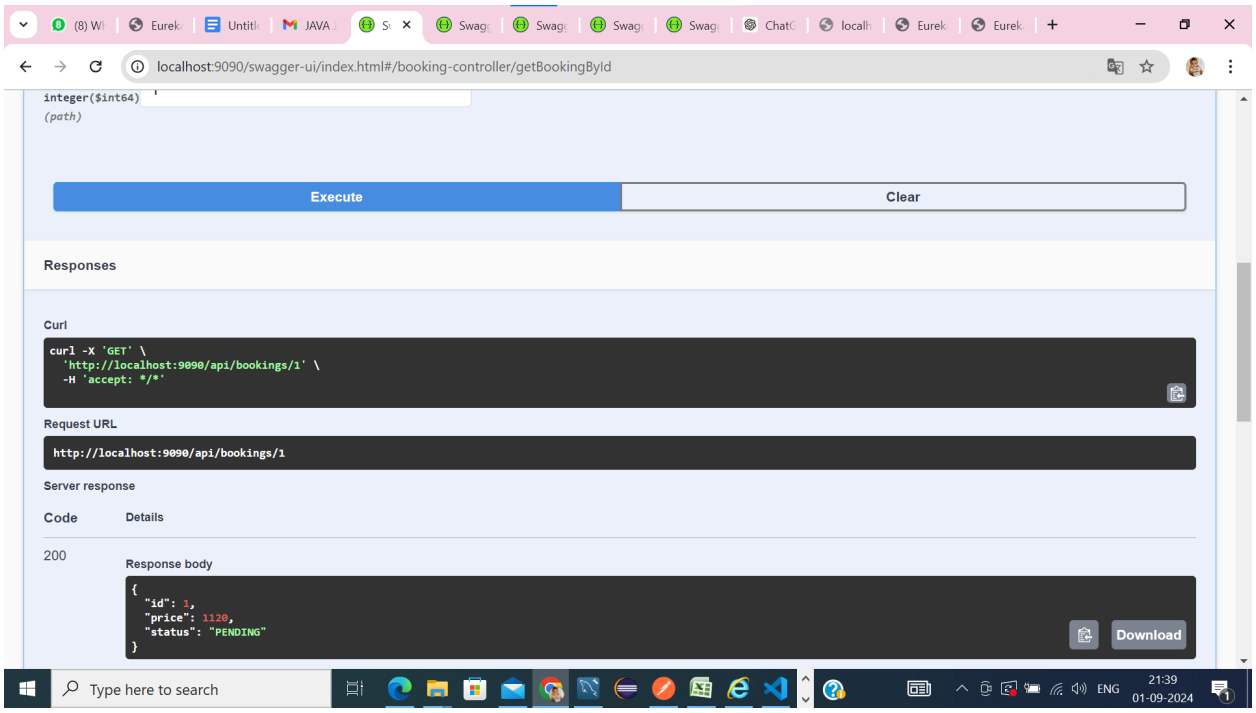


CRUD operations by using POSTMAN:



CRUD Operations by using SWAGGER:


localhost:9090/swagger-ui/index.html
OpenAPI definition
v0
OAS 3.0
/v3/api-docs
Servers
http://localhost:9090 - Generated server url
booking-controller
GET /api/bookings/{id}
PUT /api/bookings/{id}
DELETE /api/bookings/{id}
GET /api/bookings
POST /api/bookings
Type here to search
ENG
21:22
01-09-2024


localhost:9090/swagger-ui/index.html#/booking-controller/getBookingById
integer($int64)
(path)
Execute
Clear
Responses
Curl
curl -X 'GET' \
'http://localhost:9090/api/bookings/1' \
-H 'accept: */*'
Request URL
http://localhost:9090/api/bookings/1
Server response
Code
Details
200
Response body
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"price": 1120,
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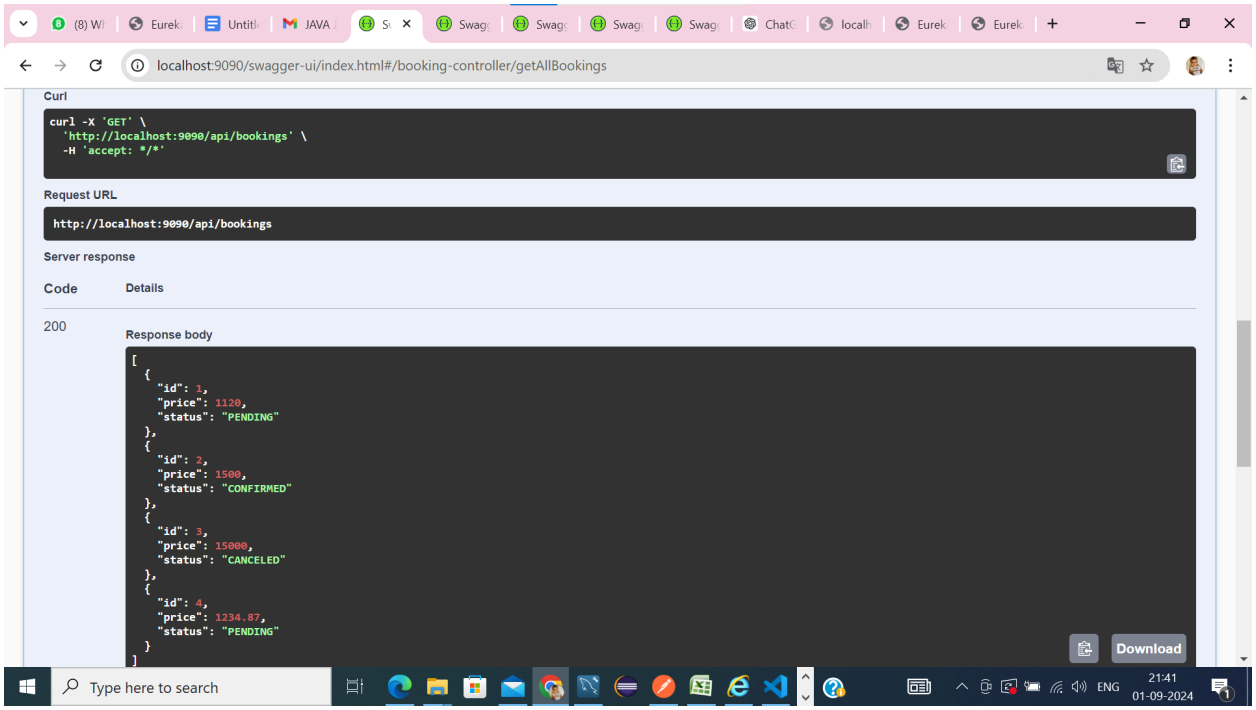
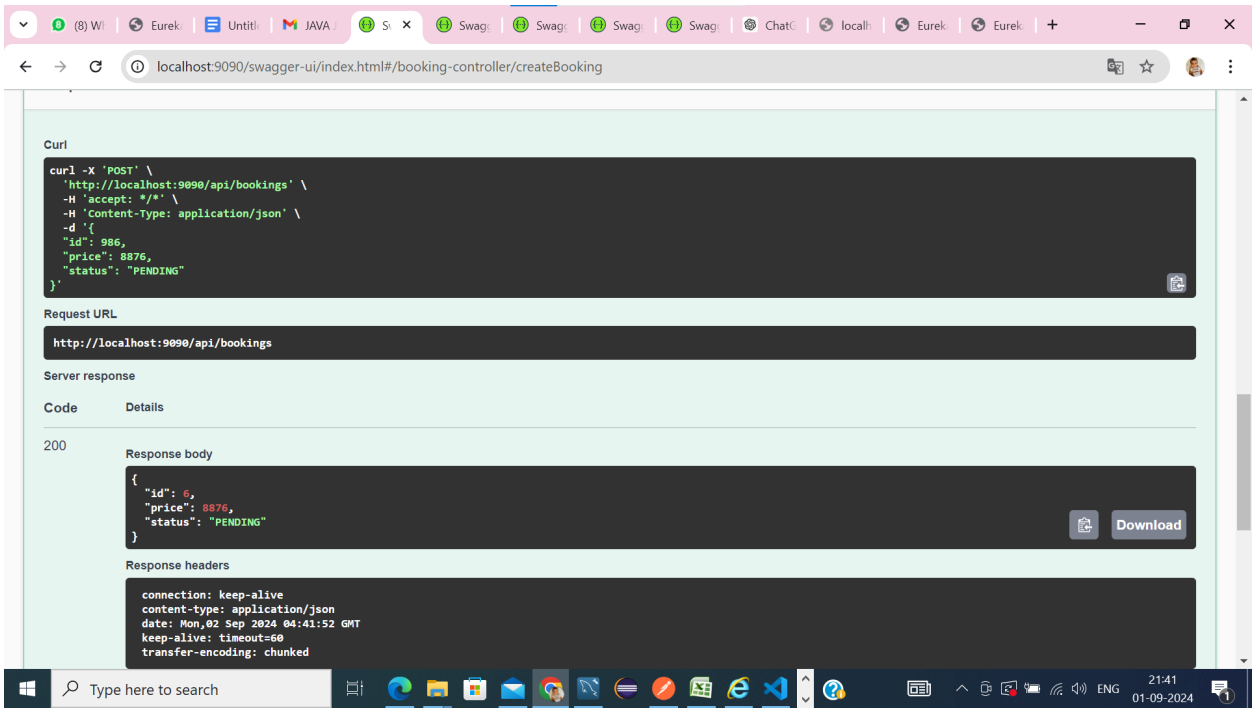
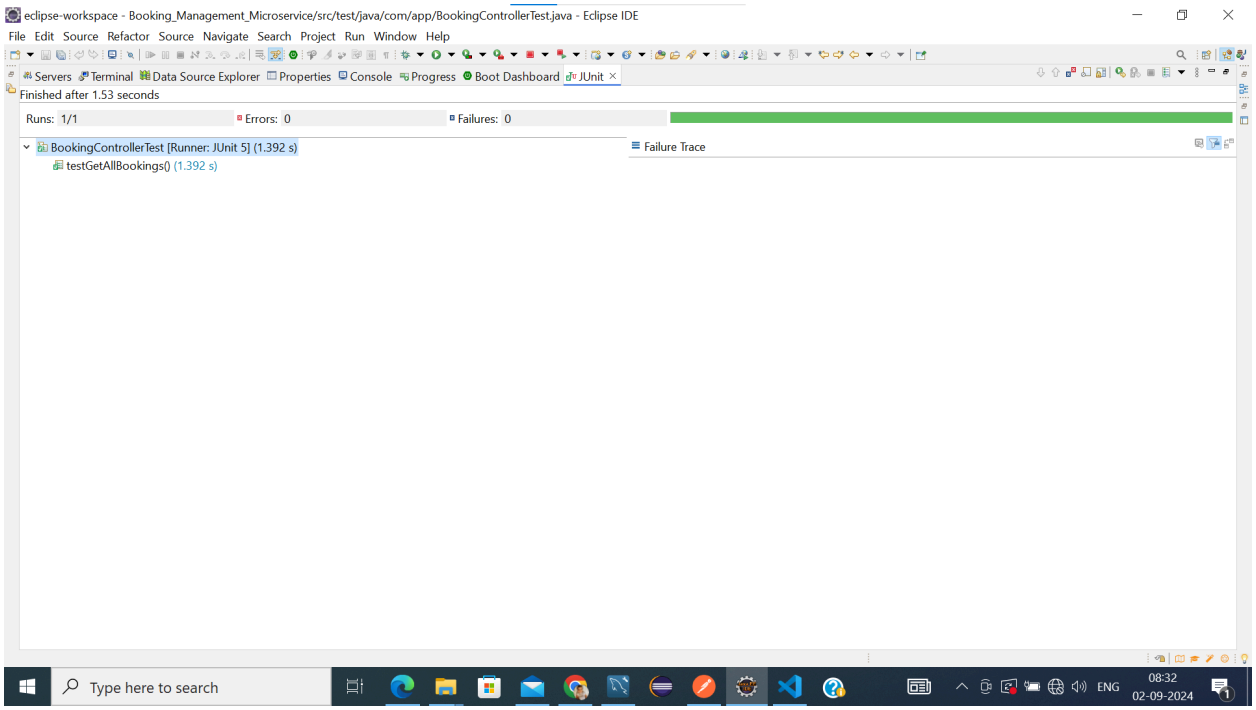
Download
Type here to search
ENG
21:39
01-09-2024



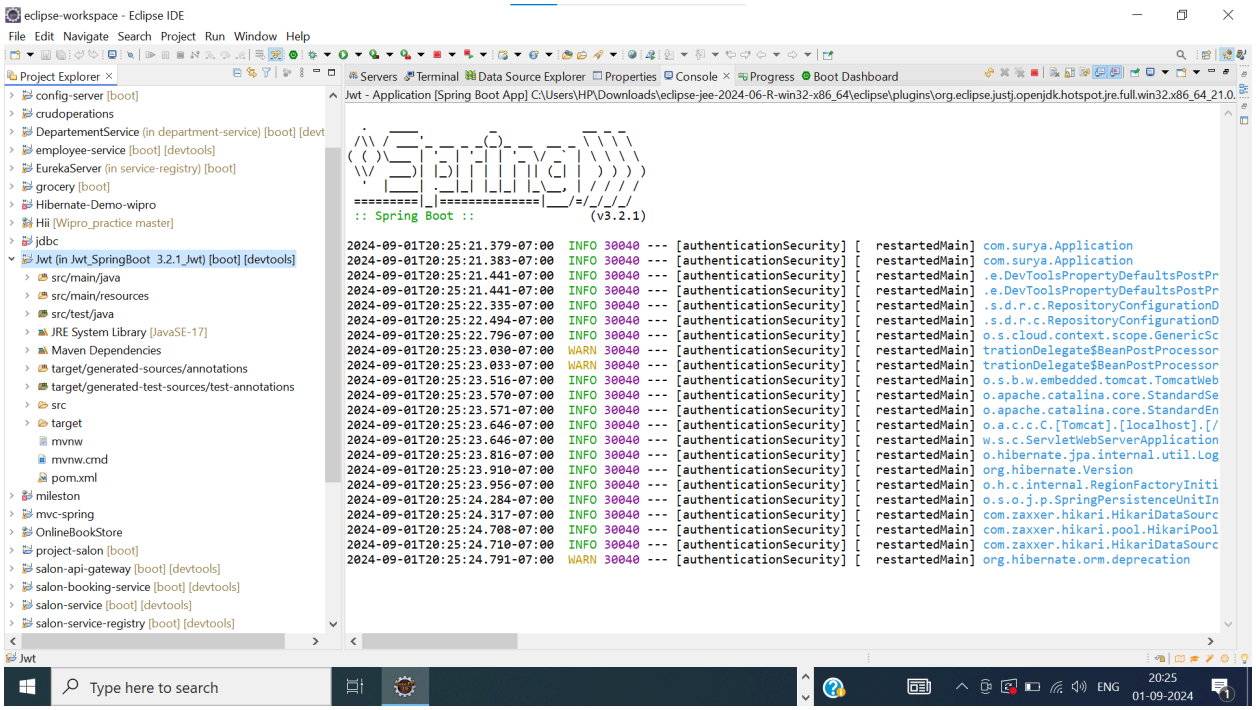


JUNIT Testing For Booking_Management_Microservice:



JWT AUTHENTICATION:

JWT Authentication Running as the SpringBootApplication in the Eclipse IDE:


eclipse-workspace - Eclipse IDE
File Edit Navigate Search Project Run Window Help
Project Explorer
Servers Terminal Data Source Explorer Properties Console Progress Boot Dashboard
Jwt - Application [Spring Boot App] C:\Users\HP\Downloads\eclipse-jee-2024-06-R-win32-x86_64\eclipse\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86_64_21.0.
:: Spring Boot :: (v3.2.1)
2024-09-01T20:25:21.379-07:00 INFO 30040 --- [authenticationSecurity] [restartedMain] com.surya.Application
2024-09-01T20:25:21.383-07:00 INFO 30040 --- [authenticationSecurity] [restartedMain] com.surya.Application
2024-09-01T20:25:21.441-07:00 INFO 30040 --- [authenticationSecurity] [restartedMain] .e.DevToolsPropertyDefaultsPostPr
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2024-09-01T20:25:22.796-07:00 INFO 30040 --- [authenticationSecurity] [restartedMain] o.s.cloud.context.scope.GenericSc
2024-09-01T20:25:23.030-07:00 WARN 30040 --- [authenticationSecurity] [restartedMain] trationDelegate$BeanPostProcessor
2024-09-01T20:25:23.033-07:00 WARN 30040 --- [authenticationSecurity] [restartedMain] trationDelegate$BeanPostProcessor
2024-09-01T20:25:23.516-07:00 INFO 30040 --- [authenticationSecurity] [restartedMain] o.s.b.w.embedded.tomcat.TomcatWeb
2024-09-01T20:25:23.570-07:00 INFO 30040 --- [authenticationSecurity] [restartedMain] o.apache.catalina.core.StandardSe
2024-09-01T20:25:23.571-07:00 INFO 30040 --- [authenticationSecurity] [restartedMain] o.apache.catalina.core.StandardEn
2024-09-01T20:25:23.646-07:00 INFO 30040 --- [authenticationSecurity] [restartedMain] o.a.c.c.C.[Tomcat].[localhost].[/
2024-09-01T20:25:23.646-07:00 INFO 30040 --- [authenticationSecurity] [restartedMain] w.s.c.ServletWebServerApplication
2024-09-01T20:25:23.816-07:00 INFO 30040 --- [authenticationSecurity] [restartedMain] o.hibernate.jpa.internal.util.Log
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2024-09-01T20:25:24.284-07:00 INFO 30040 --- [authenticationSecurity] [restartedMain] o.s.o.j.p.SpringPersistenceUnitIn
2024-09-01T20:25:24.317-07:00 INFO 30040 --- [authenticationSecurity] [restartedMain] com.zaxxer.hikari.HikariDataSourc
2024-09-01T20:25:24.708-07:00 INFO 30040 --- [authenticationSecurity] [restartedMain] com.zaxxer.hikari.pool.HikariPool
2024-09-01T20:25:24.710-07:00 INFO 30040 --- [authenticationSecurity] [restartedMain] com.zaxxer.hikari.HikariDataSourc
2024-09-01T20:25:24.791-07:00 WARN 30040 --- [authenticationSecurity] [restartedMain] org.hibernate.orm.deprecation
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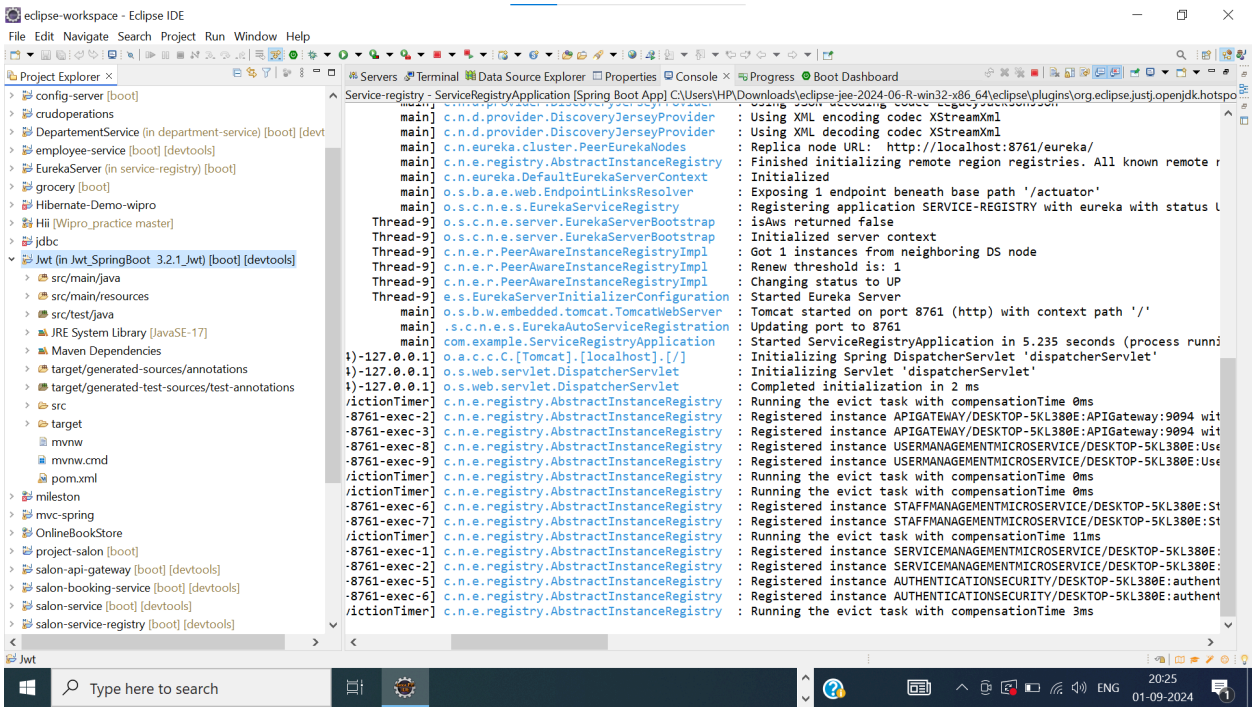
eclipse-workspace - Eclipse IDE
File Edit Navigate Search Project Run Window Help
Project Explorer
Servers Terminal Data Source Explorer Properties Console Progress Boot Dashboard
Service-registry - ServiceRegistryApplication [Spring Boot App] C:\Users\HP\Downloads\eclipse-jee-2024-06-R-win32-x86_64\eclipse\plugins\org.eclipse.justj.openjdk.hotspo
main] c.n.d.provider.DiscoveryJerseyProvider : Using XML encoding codec XStreamXml
main] c.n.d.provider.DiscoveryJerseyProvider : Using XML decoding codec XStreamXml
main] c.n.eureka.cluster.PeerEurekaNodes : Replica node URL: http://localhost:8761/eureka/
main] c.n.e.registry.AbstractInstanceRegistry : Finished initializing remote region registries. All known remote r
main] c.n.eureka.DefaultEurekaServerContext : Initialized
main] o.s.b.a.e.web.EndpointLinksResolver : Exposing 1 endpoint beneath base path '/actuator'
main] o.s.c.n.e.s.EurekaServiceRegistry : Registering application SERVICE-REGISTRY with eureka with status U
Thread-9] o.s.c.n.e.server.EurekaServerBootstrap : isAws returned false
Thread-9] o.s.c.n.e.server.EurekaServerBootstrap : Initialized server context
Thread-9] c.n.e.r.PeerAwareInstanceRegistryImpl : Got 1 instances from neighboring DS node
Thread-9] c.n.e.r.PeerAwareInstanceRegistryImpl : Renew threshold is: 1
Thread-9] c.n.e.r.PeerAwareInstanceRegistryImpl : Changing status to UP
Thread-9] e.s.EurekaServerInitializerConfiguration : Started Eureka Server
main] o.s.b.w.embedded.tomcat.TomcatWebServer : Tomcat started on port 8761 (http) with context path '/'
main] .s.c.n.e.s.EurekaAutoServiceRegistration : Updating port to 8761
main] com.example.ServiceRegistryApplication : Started ServiceRegistryApplication in 5.235 seconds (process runni
Initializing Spring DispatcherServlet 'dispatcherServlet'
Initializing Servlet 'dispatcherServlet'
Completed initialization in 2 ms
Running the evict task with compensationTime 0ms
Registered instance APIGATEWAY/DESKTOP-5KL380E:APIGateway:9094 wit
Registered instance APIGATEWAY/DESKTOP-5KL380E:APIGateway:9094 wit
Registered instance USERMANAGEMENTMICROSERVICE/DESKTOP-5KL380E:Use
Registered instance USERMANAGEMENTMICROSERVICE/DESKTOP-5KL380E:Use
Running the evict task with compensationTime 0ms
Running the evict task with compensationTime 0ms
Registered instance STAFFMANAGEMENTMICROSERVICE/DESKTOP-5KL380E:St
Registered instance STAFFMANAGEMENTMICROSERVICE/DESKTOP-5KL380E:St
Running the evict task with compensationTime 11ms
Registered instance SERVICEMANAGEMENTMICROSERVICE/DESKTOP-5KL380E:
Registered instance SERVICEMANAGEMENTMICROSERVICE/DESKTOP-5KL380E:
Registered instance AUTHENTICATIONSECURITY/DESKTOP-5KL380E:authent
Registered instance AUTHENTICATIONSECURITY/DESKTOP-5KL380E:authent
Running the evict task with compensationTime 3ms
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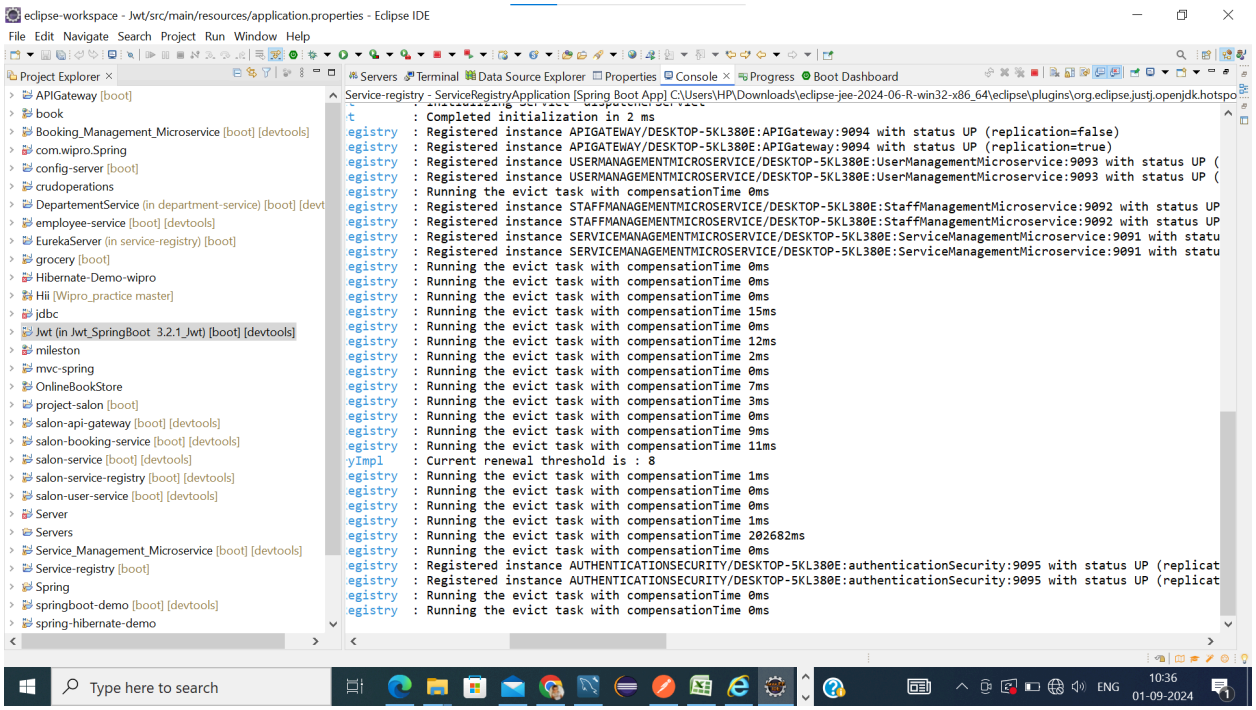
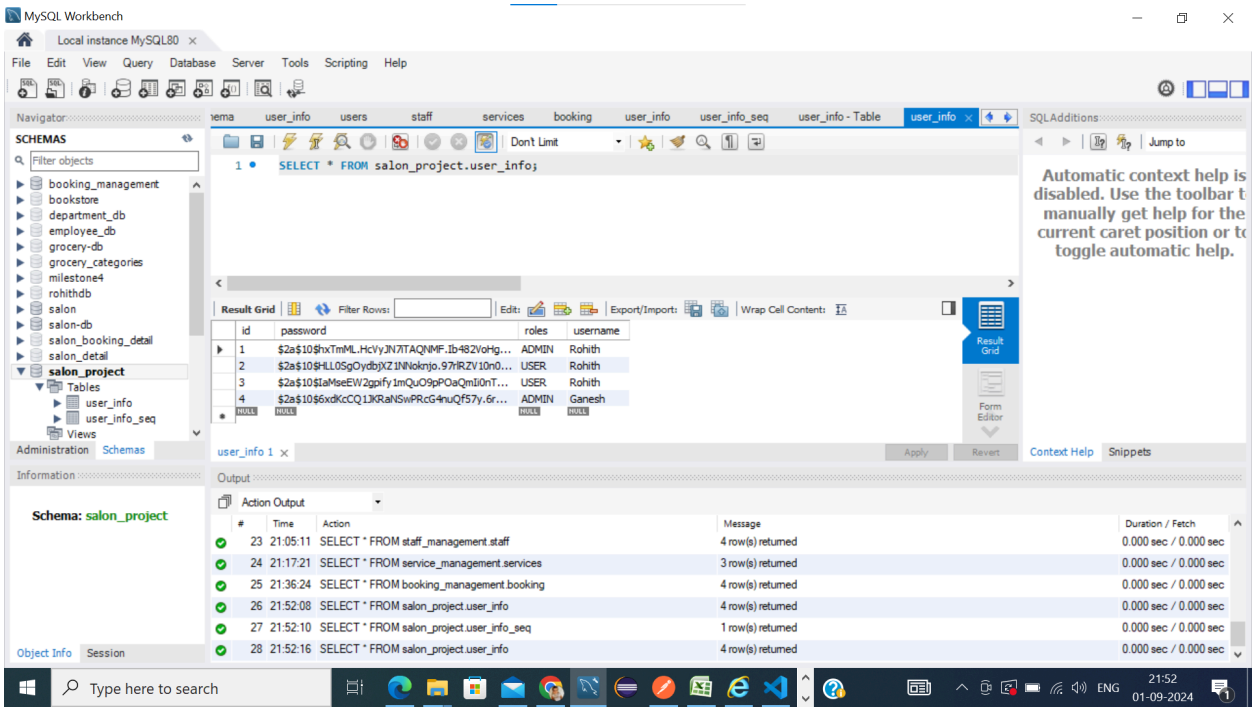
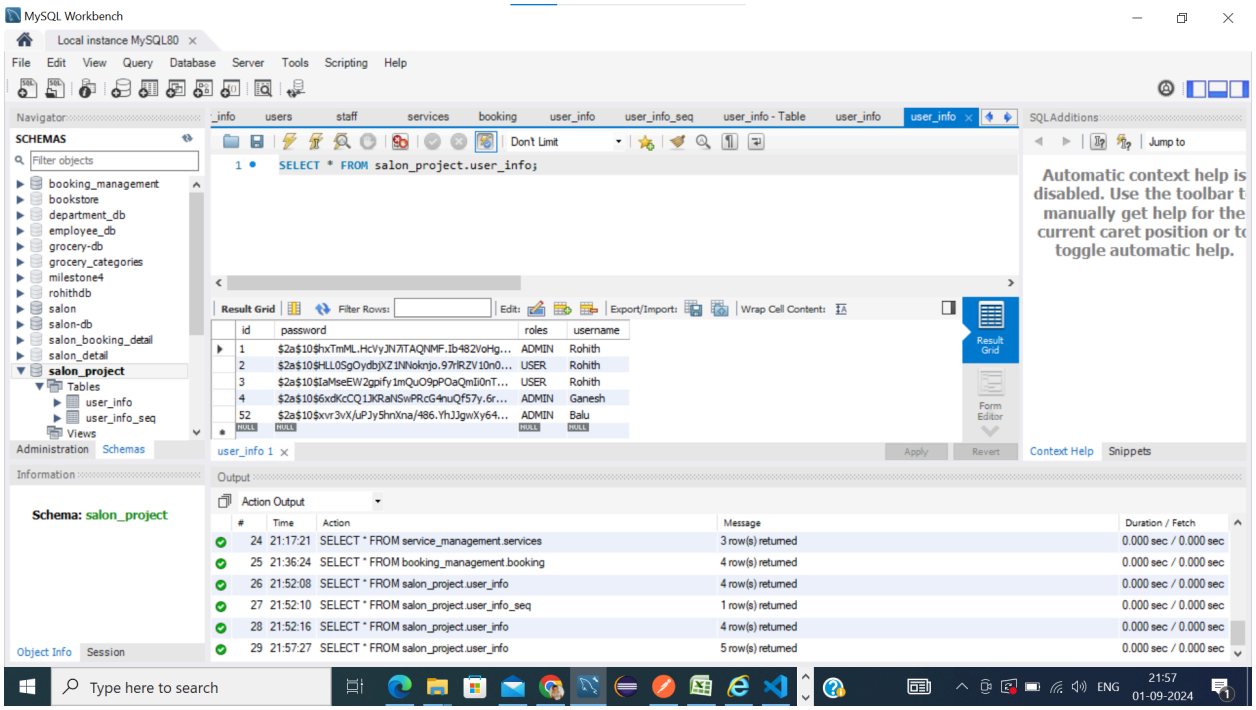
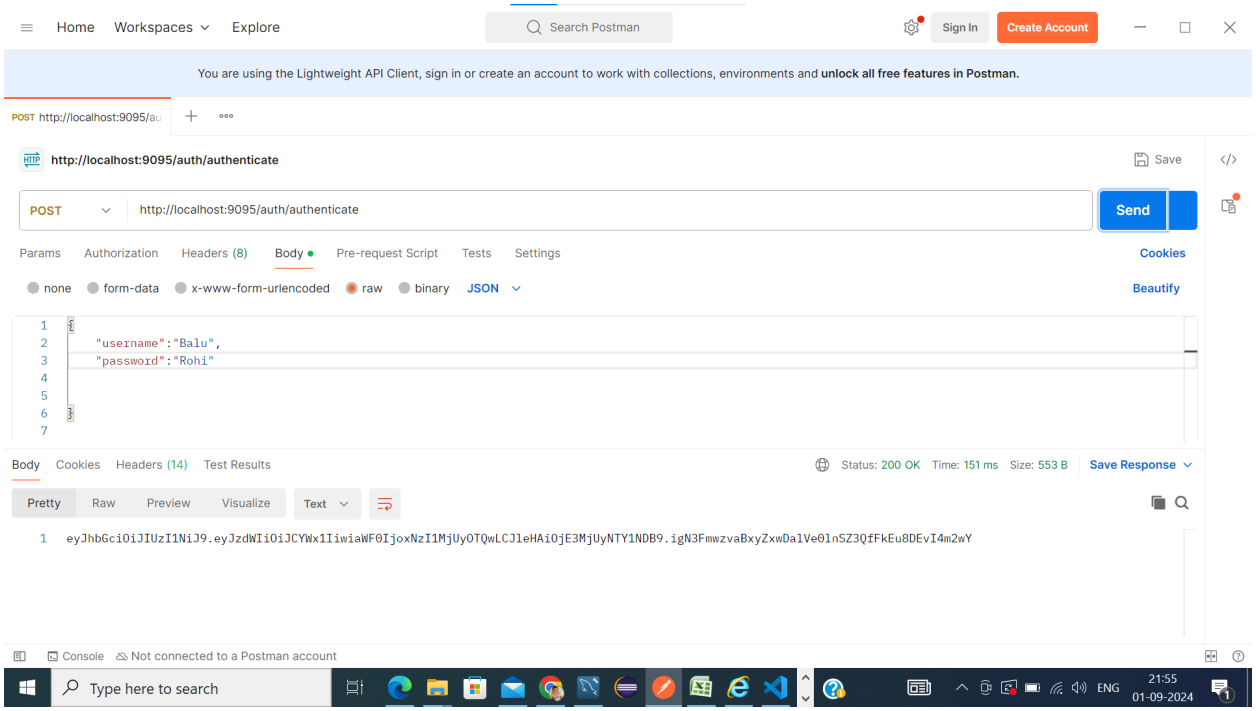


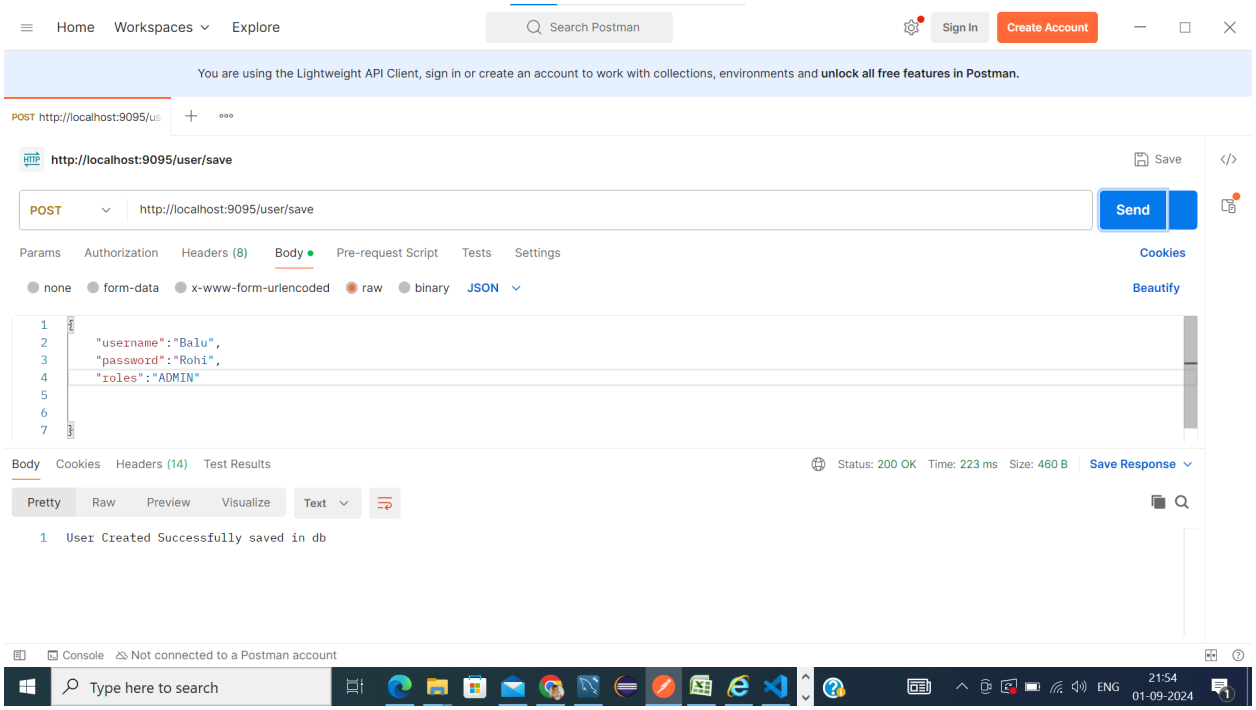
Creating the JWT Database in SQL WorkBench:





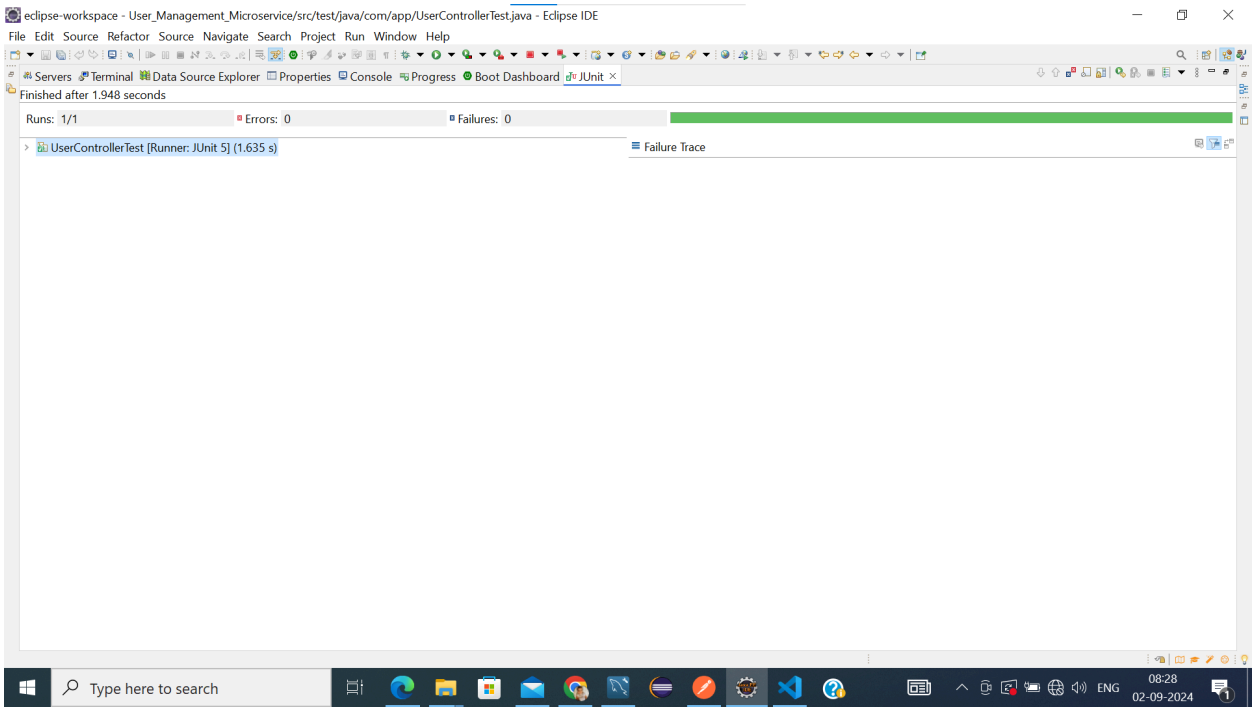
Generating the JWT Token in the POSTMAN:



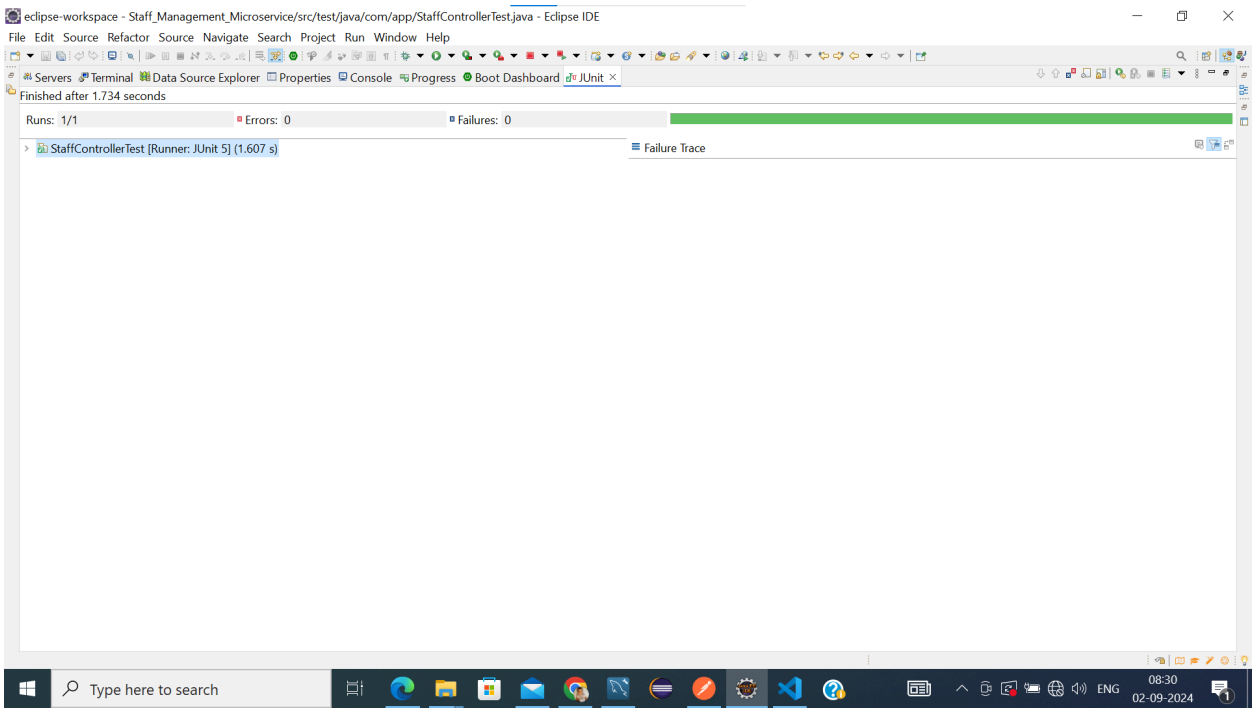


JUNIT TEST CASES:

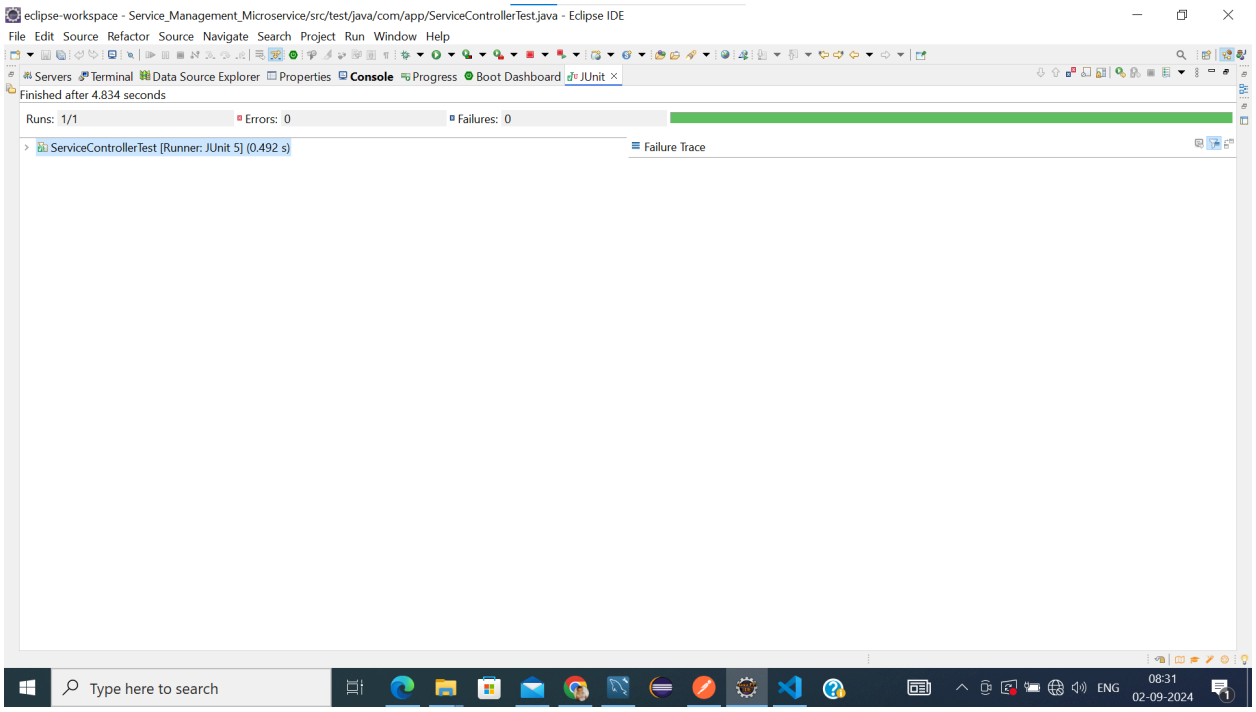
1.User_Management_Microservice:



2.Satff_Management_Microservice:



3.Service_Management_Microservice:



4.Booking_Management_Microservice: