Quick review of SDTproject “etapa 4”

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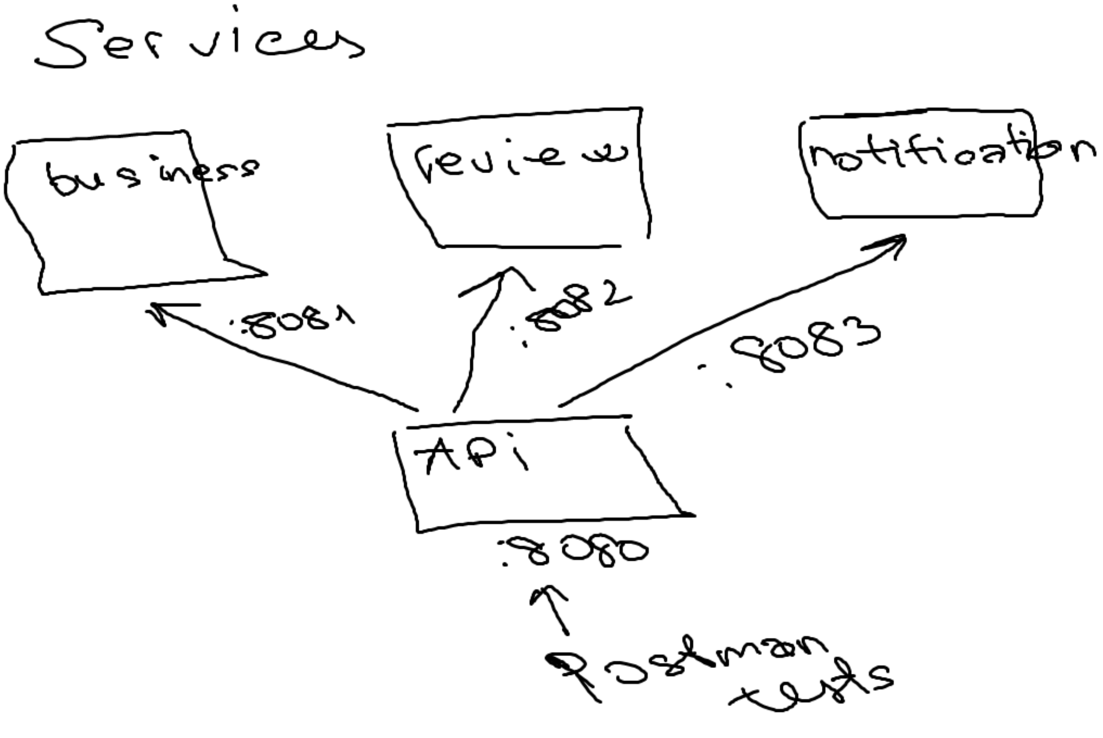
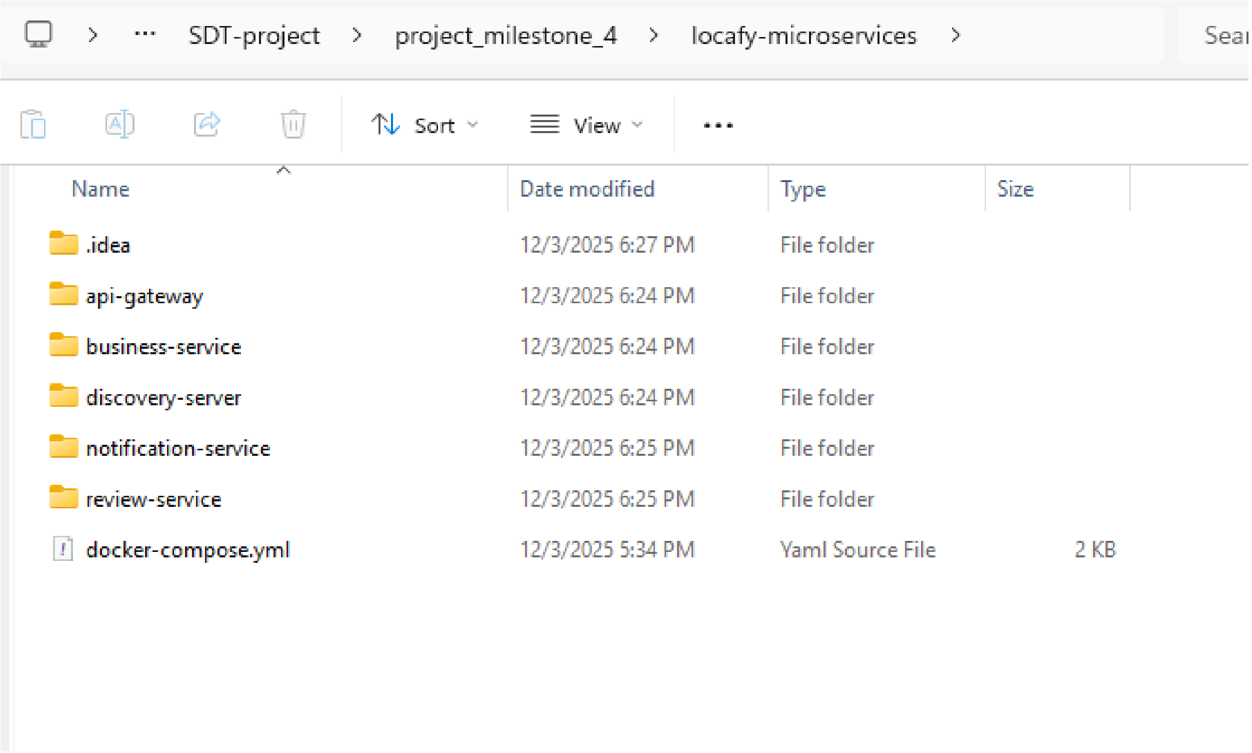
The Project Structure:

- Spring Eureka discovery system (port 8071)-> discovers all available services
- API Gateway(port 8080) -> entrypoint for all other services



- The Services:
    - Business service (port 8081) -> has builder
    - Review service (port 8082)
    - Notification service (port 8083)

Everything is a new project created with Spring Boot(https://start.spring.io/):

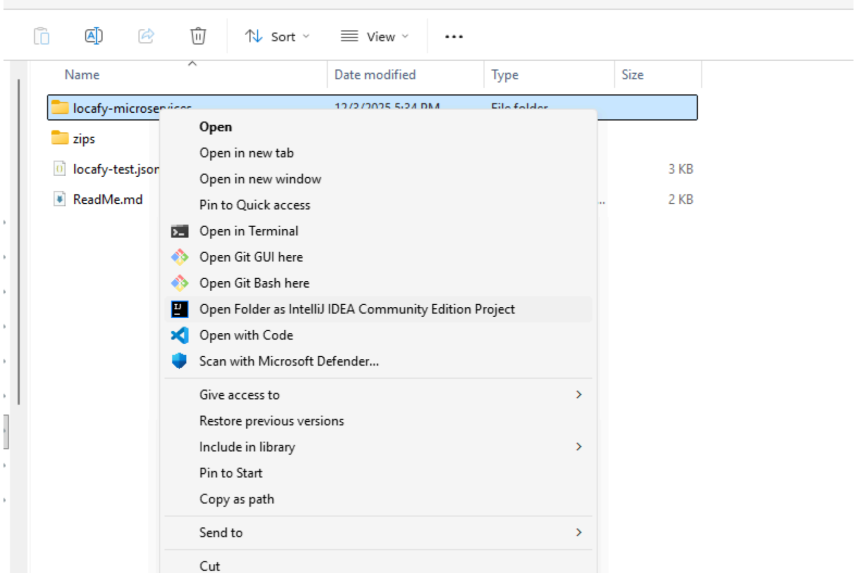


Name	Date modified	Type	Size
.idea	12/3/2025 6:27 PM	File folder	
api-gateway	12/3/2025 6:24 PM	File folder	
business-service	12/3/2025 6:24 PM	File folder	
discovery-server	12/3/2025 6:24 PM	File folder	
notification-service	12/3/2025 6:25 PM	File folder	
review-service	12/3/2025 6:25 PM	File folder	
docker-compose.yml	12/3/2025 5:34 PM	Yaml Source File	2 KB

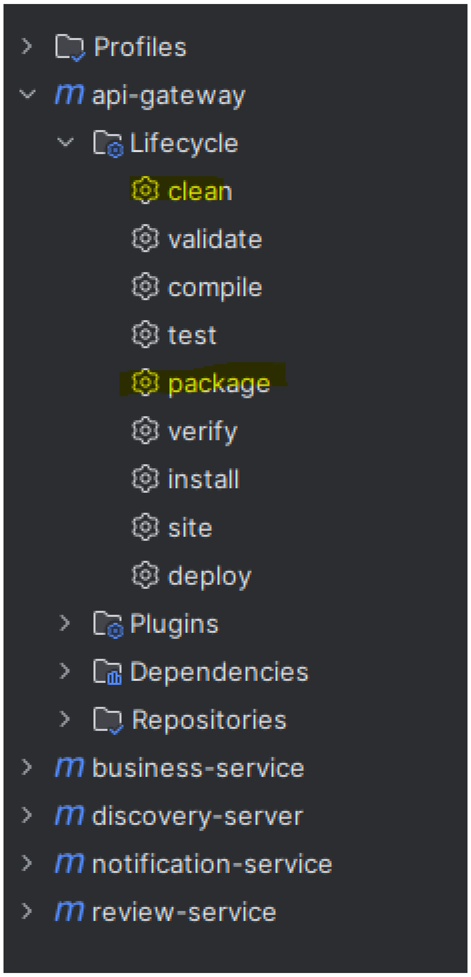
Docker Containerization:

Step1:

- Open the main folder in InteliJ

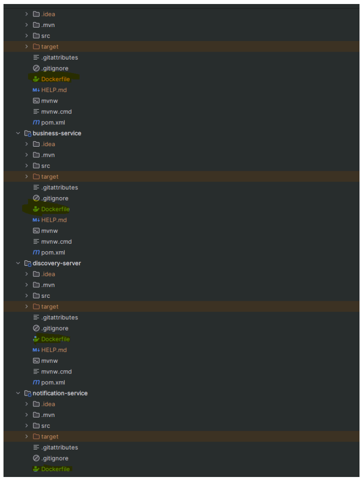


- Build all the projects with Maeven(use clean and then package)



Step 2:

- Have a “Docker” file inside each project (api-gateway, business-service, discovery-server, notification-service, review-service)



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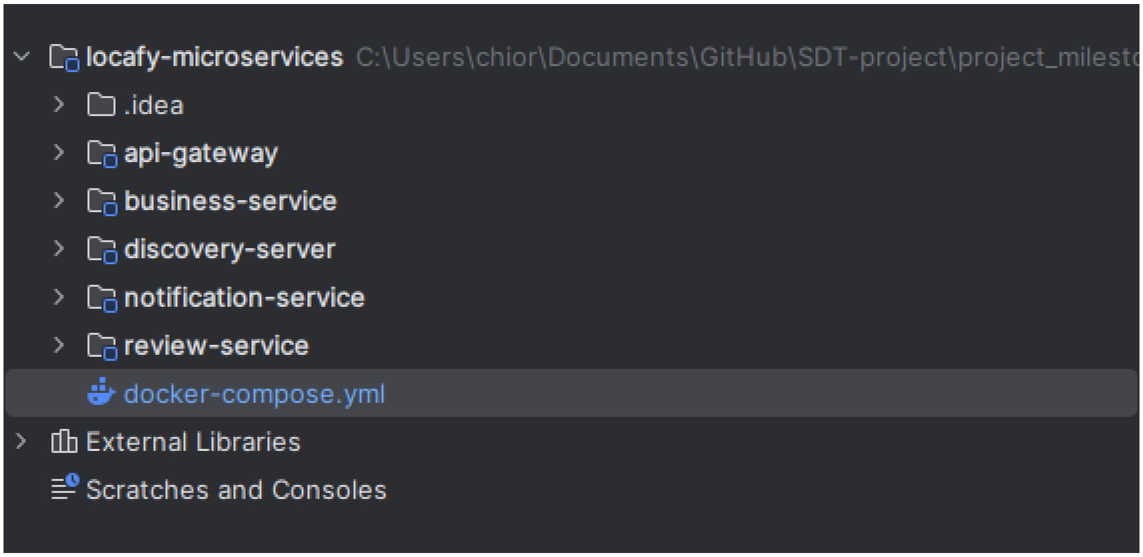
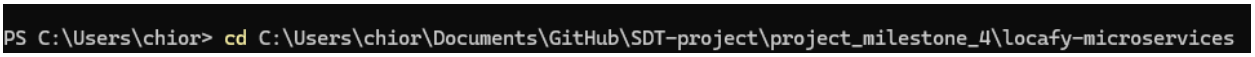
- Have a “docker-compose.yml” file



```
locafy-microservices C:\Users\chior\Documents\GitHub\SDT-project\project_milest
  .idea
  api-gateway
  business-service
  discovery-server
  notification-service
  review-service
  docker-compose.yml
External Libraries
Scratches and Consoles
```

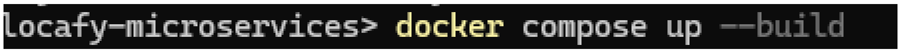
Step 3:

- Open Administrator Prompt and move into the project directory:



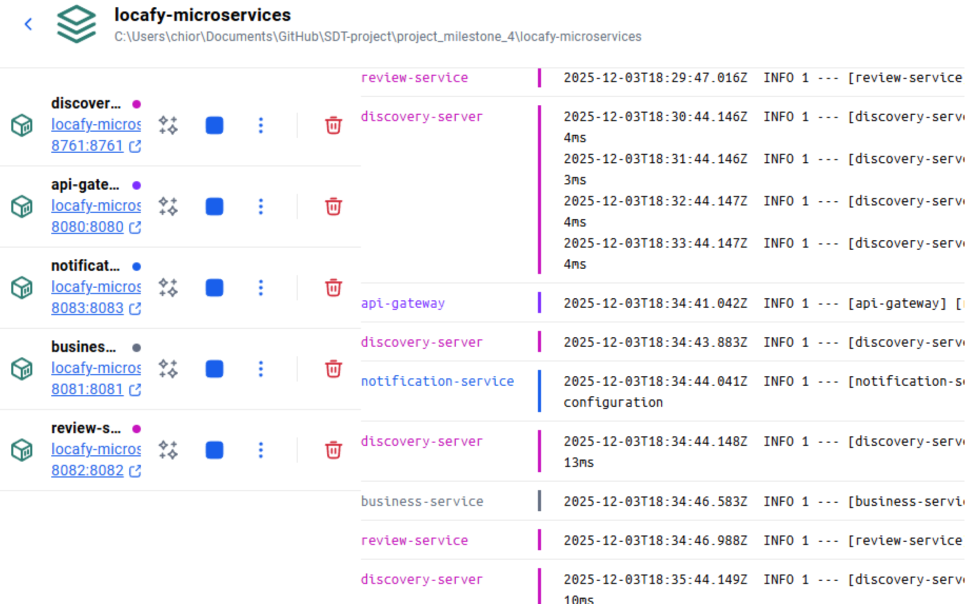
```
PS C:\Users\chior> cd C:\Users\chior\Documents\GitHub\SDT-project\project_milestone_4\locafy-microservices
```

- Build everything:



```
locafy-microservices> docker compose up --build
```

- Admire:



locafy-microservices

C:\Users\chior\Documents\GitHub\SDT-project\project_milestone_4\locafy-microservices

```
review-service        | 2025-12-03T18:29:47.016Z  INFO 1 --- [review-service
discovery-server      | 2025-12-03T18:30:44.146Z  INFO 1 --- [discovery-serv
                      | 4ms
                      | 2025-12-03T18:31:44.146Z  INFO 1 --- [discovery-serv
                      | 3ms
                      | 2025-12-03T18:32:44.147Z  INFO 1 --- [discovery-serv
                      | 4ms
                      | 2025-12-03T18:33:44.147Z  INFO 1 --- [discovery-serv
                      | 4ms
api-gateway           | 2025-12-03T18:34:41.042Z  INFO 1 --- [api-gateway] [
discovery-server      | 2025-12-03T18:34:43.883Z  INFO 1 --- [discovery-serv
notification-service  | 2025-12-03T18:34:44.041Z  INFO 1 --- [notification-s
                      | configuration
discovery-server      | 2025-12-03T18:34:44.148Z  INFO 1 --- [discovery-serv
                      | 13ms
business-service      | 2025-12-03T18:34:46.583Z  INFO 1 --- [business-servi
review-service        | 2025-12-03T18:34:46.988Z  INFO 1 --- [review-service
discovery-server      | 2025-12-03T18:35:44.149Z  INFO 1 --- [discovery-serv
                      | 10ms
```

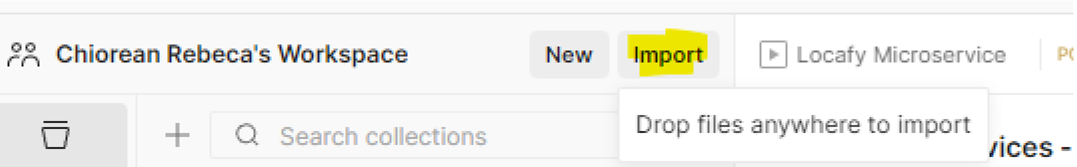
Postman:

Step1:

- Install the desktop application.

Step 2:

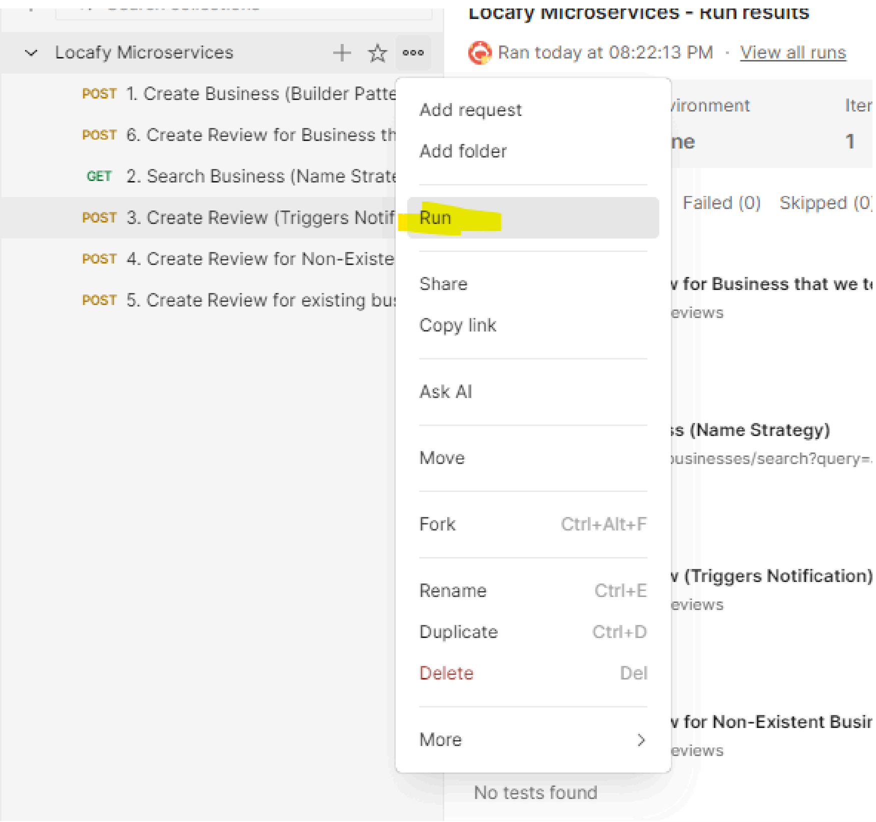
- Import locafy-test.json



Drop files anywhere to import

Step 4:

- Run the tests



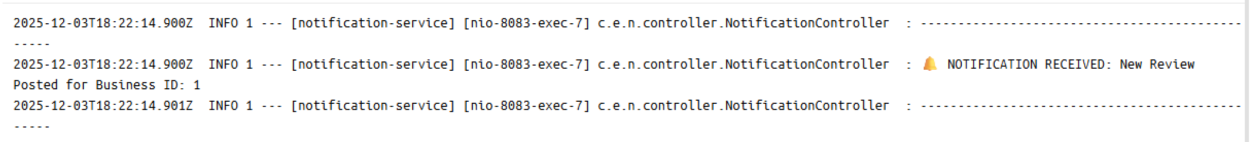
Ran today at 08:22:13 PM

No tests found

Useful links (I suggest using these after Postman ran its first test suite so the db aren t empty):

- Checking business database entries based on ids:
  http://localhost:8080/api/businesses/1
- Checking reviews:
  http://localhost:8080/api/reviews/business/1

Looking for notifications (At the moment notifications are printed):



```
2025-12-03T18:22:14.900Z  INFO 1 --- [notification-service] [nio-8083-exec-7] c.e.n.controller.NotificationController   : -------------------------------------------
-----
2025-12-03T18:22:14.900Z  INFO 1 --- [notification-service] [nio-8083-exec-7] c.e.n.controller.NotificationController   : 🔔 NOTIFICATION RECEIVED: New Review
Posted for Business ID: 1
2025-12-03T18:22:14.901Z  INFO 1 --- [notification-service] [nio-8083-exec-7] c.e.n.controller.NotificationController   : -------------------------------------------
-----
```

← this notification appears after a review is being posted

Files and their content:

Dockerfile (the same file in every folder):

```
# 1. Start with Java 17
FROM eclipse-temurin:17-jdk-alpine

# 2. Set the working directory inside the container
WORKDIR /app

# 3. Copy the built JAR file from your computer's 'target' folder into the container
#    (Maven builds into 'target', Gradle builds into 'build/libs')
COPY target/*.jar app.jar

# 4. Run the application
ENTRYPOINT ["java", "-jar", "app.jar"]
```

docker-compose.yml

```
version: '3.8'

services:
 discovery-server:
   build: ./discovery-server
   container_name: discovery-server
   ports:
     - "8761:8761"
   environment:
     - SPRING_PROFILES_ACTIVE=docker

 api-gateway:
   build: ./api-gateway
   container_name: api-gateway
   ports:
     - "8080:8080"
   environment:
     -
EUREKA_CLIENT_SERVICEURL_DEFAULTZONE=http://discovery-server:8761/eureka/
     - SPRING_PROFILES_ACTIVE=docker
   depends_on:
     - discovery-server

 business-service:
   build: ./business-service
   container_name: business-service
   ports:
     - "8081:8081"
   environment:
     -
EUREKA_CLIENT_SERVICEURL_DEFAULTZONE=http://discovery-server:8761/eureka/
   depends_on:
     - discovery-server

 notification-service:
   build: ./notification-service
   container_name: notification-service
   ports:
     - "8083:8083"
   environment:
     -
EUREKA_CLIENT_SERVICEURL_DEFAULTZONE=http://discovery-server:8761/eureka/
   depends_on:
     - discovery-server

 review-service:
   build: ./review-service
   container_name: review-service
   ports:
     - "8082:8082"
   environment:
     -
EUREKA_CLIENT_SERVICEURL_DEFAULTZONE=http://discovery-server:8761/eureka/
   depends_on:
     - discovery-server
     - business-service
```