**Cd Laravel Microservice with DDD**

**Microservices:**

1. Student
2. Book



**High-Level Architecture**

**Student Microservice**

This microservice has the ability to create, read, update and delete student entities through RESTful APIs. It also produces queue events to the RabbitMQ when any entities are changed or added.

Endpoints:

1. Get - /api/students
2. Get - /api/students/{studentId}
3. Post - /api/students
4. Patch - /api/students/{studentId}
5. Delete - /api/students/{studentId}

Data Schema:

Create Student -

{

"name": "Mehedi Hassan",

"roll": "30"

}

Update Student -

{

"name": "Mehedi Hassan Durjoi",

"roll": "31"

}

**Book Microservice**

This microservice has the ability to create, read, update and delete book entities through RESTful APIs and has the ability to read student information from the database. It actively listens to the RabbitMQ channel to consume events produced by the student microservice to keep a soft copy of student data.

Endpoints:

1. Get - /api/books
2. Get - /api/books/{bookId}
3. Post - /api/books
4. Patch - /api/books/{bookId}
5. Delete - /api/books/{bookId}
6. Get - /api/students
7. Get - /api/students/{studentId}

Data Schema:

Create Book -

{

"name" : "test",

"pic" : "test",

"student\_id": 12

}

Update Book -

{

"name" : "test 1",

"pic" : "test",

"student\_id": 1

}

**Running Microservices**

**Clone git repo -**

git clone https://github.com/durjoi/laravel-microservice.git

**Cd to the project folder**

cd laravel-microservice

**## Run RabitMQ Docker Container -**

Docker-compose up

Check rabbitMQ - <http://127.0.0.1:15672>

Username: yafitech

Password: 123456

**## Student**

**Cd to student service -**

cd student

Copy .env.example to .env

**Install composer packages**

composer install

**Generate Key**

php artisan key:generate

**Run sail**

./vendor/bin/sail up

**Run migration**

./vendor/bin/sail artisan migrate

Access the student microservice endpoint on this link - http://127.0.0.1:3050

**## Book**

**Cd to book folder**

cd book

Copy .env.example to .env

**Install composer packages**

composer install

**Generate Key**

php artisan key:generate

**Run sail**

./vendor/bin/sail up

**Run migration**

./vendor/bin/sail artisan migrate

**Run rabbitMQ consumer**

./vendor/bin/sail artisan rabbitmq:consume

Access the book microservice endpoint on this link - <http://127.0.0.1:3051>

***Note: Always use http header content-type: application/json and accept: application/json***

**Running Tests**

cd to book and run

php artisan test –testsuite=Unit