

FASTVAN Assignment

Name: G Rushivardhan

College: Woxsen University

Roll no:20WU0101025.

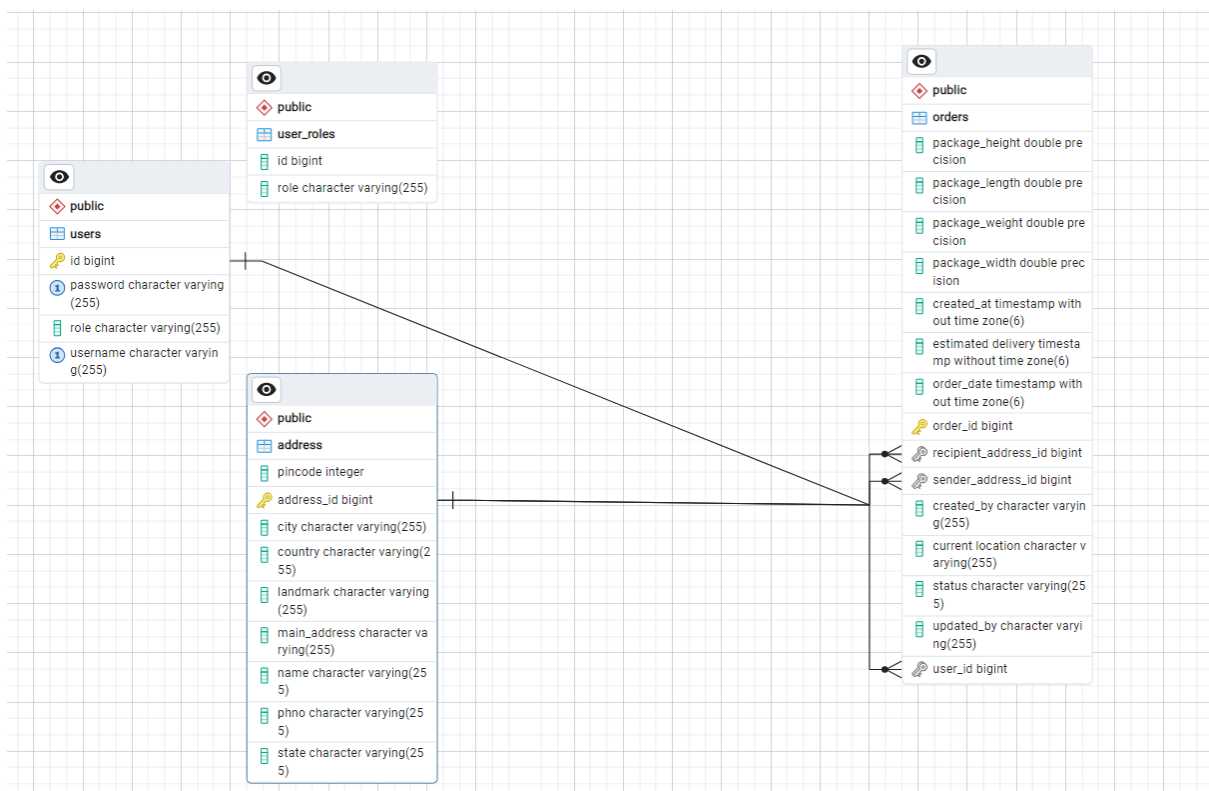
Task: Carrier Integration

To create API's:

1. Get Quote API
2. Create Order API
3. Track Order

Database Details: PostgreSQL as the relational database management system for storing data.

ERD:



Entities:

1. User: Represents all types of users for the application, here there are three “USER”, “ADMIN”, “CREATOR”. And this users are created through api.
2. UserRole: Represents types of roles user can have.
3. Address: Represents all the fields of address that requires for the product delivery
4. Order: Represents all the fields of order details, including package weight, estimated delivery, etc.

Functionalities:

1. Every user has to create their own account by using adduser function
2. Login will validate the user with correct password and return jwt token.
3. All the details of the address are stored in address table.
4. GetAllorders API(QuoteApi) will return the list of orders there.
5. GetorderById will return the order.
6. CreateOrder API will create the order based on the fields.
7. UpdateOrder Api will update the order based on the given fields.
8. DeleteOrder Api will delete the order.
9. TrackingInfo Api will give info of the order.
10. For creation, updation, deletion will first validate the user is a CREATOR OR ADMIN, if not return illegalattempt.

Technologies Used:

1. Java Spring Boot for building the RESTful API.
2. PostgreSQL for Database management.
3. Postman for API documentation.
4. Github for pushing the project.

Explanation:

Firstly, I created a springboot project “FastVan Assignment” using “ Spring Initializr” where I added all the required dependencies for my project and downloaded as a jar folder.

Then In Assignment project I added all the packages and classes required for it. Then added the postgres properties in application properties file, and all other requirements.

```

spring.datasource.url=jdbc:postgresql://localhost:5432/Fastvan
spring.datasource.username=postgres
spring.datasource.password=Rushi@1826
spring.datasource.driver-class-name=org.postgresql.Driver
spring.jpa.show-sql=true
spring.jpa.hibernate.ddl-auto=update
spring.jpa.properties.hibernate.dialect=org.hibernate.dialect.PostgreSQLDialect
spring.jpa.properties.hibernate.format_sql=true

```

Then I created the Repository, Service, Config and Controller class with all the functionalities mentioned above.

API Summary:

- 1) Firstly, I made three roles, “user”, “Admin”, “Creator”, where user can check the tracking of his order, Creator have access to crud the order, Admin has access to everything.
- 2) Create, Update, Delete, get orders API’s will give the information of the Order
- 3) Normal users can check their order tracking info and as well as their order details.
- 4) The Estimated delivery will be directly given by plus 3 days directly from the time order created, and whenever the the order is updated, the estimated delivery will be chaged with the (createdtime-updated time) and it will reflect in the trackinginfo api.

API Endpoints:

1)ADDROLE: Adding the role.

Url: <http://localhost:8080/Ontrac/orders/addrole>

RequestBody:

```

{
    "role":"CREATOR"
}

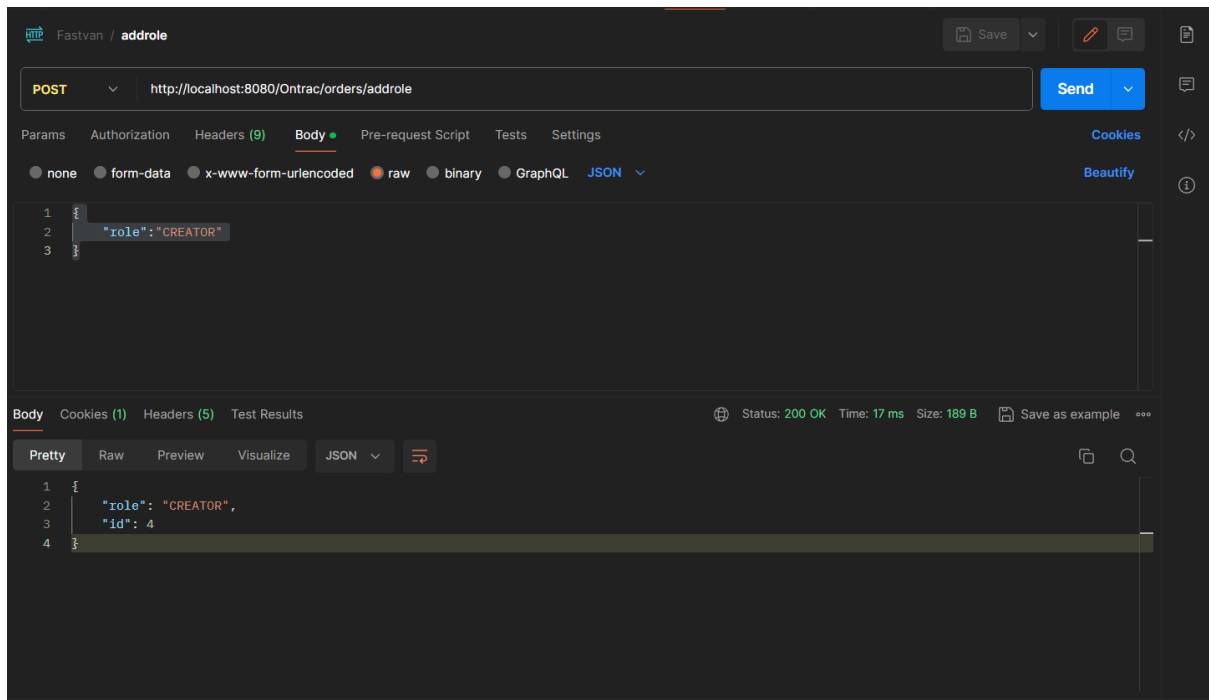
```

ResponseBody:

```

{
    "role": "CREATOR",
    "id": 4}

```



2)AddUser: adding the user

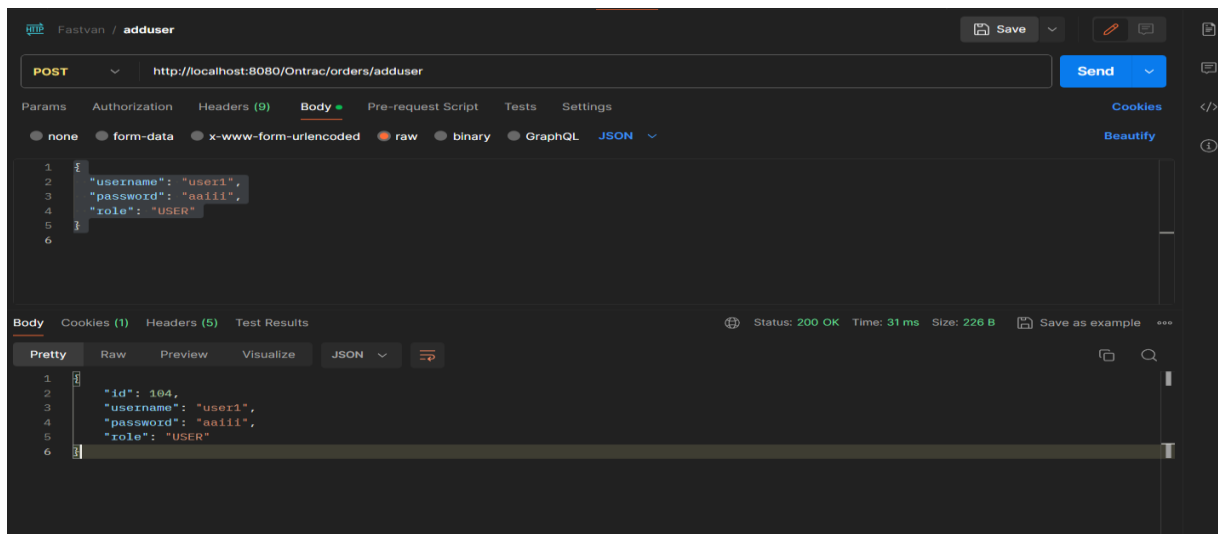
url:<http://localhost:8080/Ontrac/orders/adduser>

RequestBody:

```
{  
  "username": "user1",  
  "password": "aaiii",  
  "role": "USER"  
}
```

ResponseBody:

```
{  
  "id": 104,  
  "username": "user1",  
  "password": "aaiii",  
  "role": "USER"  
}
```



3) **Login:** login with the user/creator/admin details

url : <http://localhost:8080/Ontrac/api/auth/login>

Body:

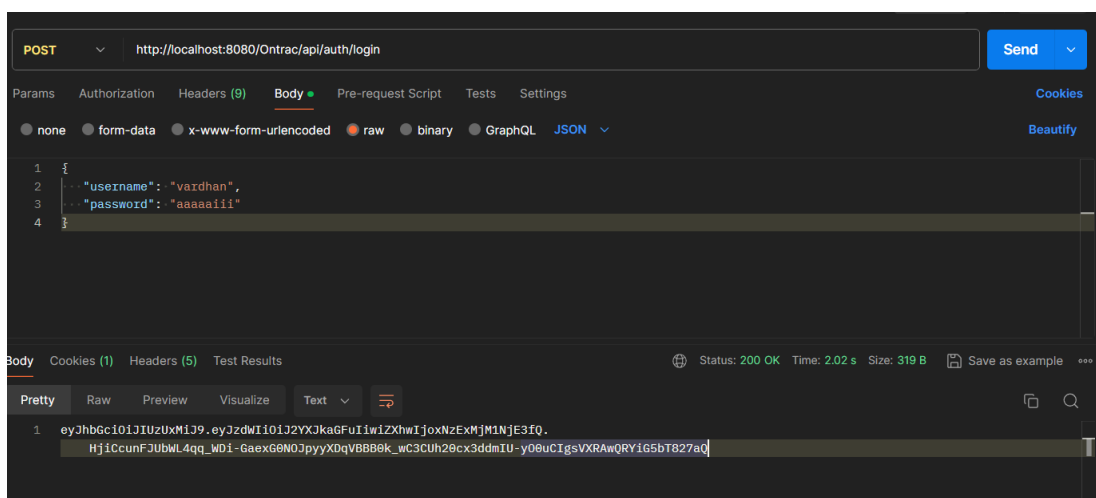
```

{
  "username": "vardhan",
  "password": "aaaaa111"
}

```

Response:

eyJhbGciOiJIUzUxMiJ9.eyJzdWIiOiJ2YXJkaGFuIiwiaXNjaXoxNzExMjM1NjE3fQ.HjiCcu
nFJUWL4qq_WDi-GaexG0NOJpyyXDqVBBB0k_wC3CUh20cx3ddmIU-
yO0uCIgsVXRaWQRyIG5bT827aQ



4) **CreateOrder:** Creating the order with sender and received address by creator or admin.

url:<http://localhost:8080/Ontrac/orders/createorder>

ResponseBody:

```
{  
  "senderAddress": {  
    "mainAddress": "woxsen university kamkole",  
    "name": "Rusheddi",  
    "landmark": "woxsadasen",  
    "city": "mumbaadafdi",  
    "state": "maharadfdstra",  
    "pincode": 50003,  
    "country": "India",  
    "phonenum": "9846545679"  
  },  
  "recipientAddress": {  
    "mainAddress": "456 Elm St",  
    "name": "varddshan",  
    "landmark": "Next todods Library",  
    "city": "Vijayawadda",  
    "state": "Andhra Prffadesh",  
    "pincode": 54321,  
    "country": "India",  
    "phonenum": "9876513210"  
  },  
  "packageWeight": 2.5,  
  "packageLength": 12.0,  
  "packageWidth": 8.0,  
  "packageHeight": 6.0,  
  "orderDate": "2024-03-25T10:15:30",  
  "status": "Created",
```

```
"created_by": "Aaaa",  
"currentLocation": "Ahmedabad",  
"userId": {  
  "id": 103  
}  
}
```

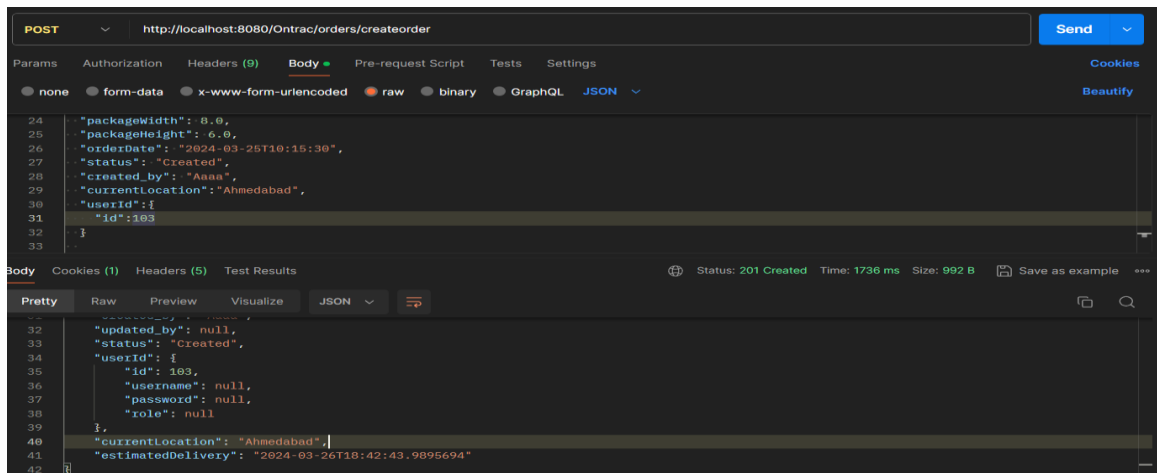
Response:

```
{  
  "orderId": 202,  
  "senderAddress": {  
    "landmark": "woxsadasen",  
    "city": "mumbaadafdi",  
    "state": "maharadfdstra",  
    "pincode": 50003,  
    "country": "India",  
    "phonenum": "9846545679",  
    "name": "Rusheddi",  
    "mainAddress": "woxsen university kamkole",  
    "addressID": 203  
  },  
  "recipientAddress": {  
    "landmark": "Next todods Library",  
    "city": "Vijayawaddda",  
    "state": "Andhra Prffadesh",  
    "pincode": 54321,  
    "country": "India",  
    "phonenum": "9876513210",  
    "name": "varddshan",  
    "mainAddress": "456 Elm St",  
    "addressID": 202  
  },  
  "packageWeight": 2.5,
```

```

"packageLength": 12.0,
"packageWidth": 8.0,
"packageHeight": 6.0,
"orderDate": "2024-03-23T18:42:43.9885838",
"createdAt": "2024-03-23T18:42:43.9885838",
"created_by": "Aaaa",
"updated_by": null,
"status": "Created",
"userId": {
  "id": 103,
  "username": null,
  "password": null,
  "role": null
},
"currentLocation": "Ahmedabad",
"estimatedDelivery": "2024-03-26T18:42:43.9895694"
}

```



5)GetallOrders(Quote): get all orders

url: <http://localhost:8080/Ontrac/orders/getallorders>

Response:

```

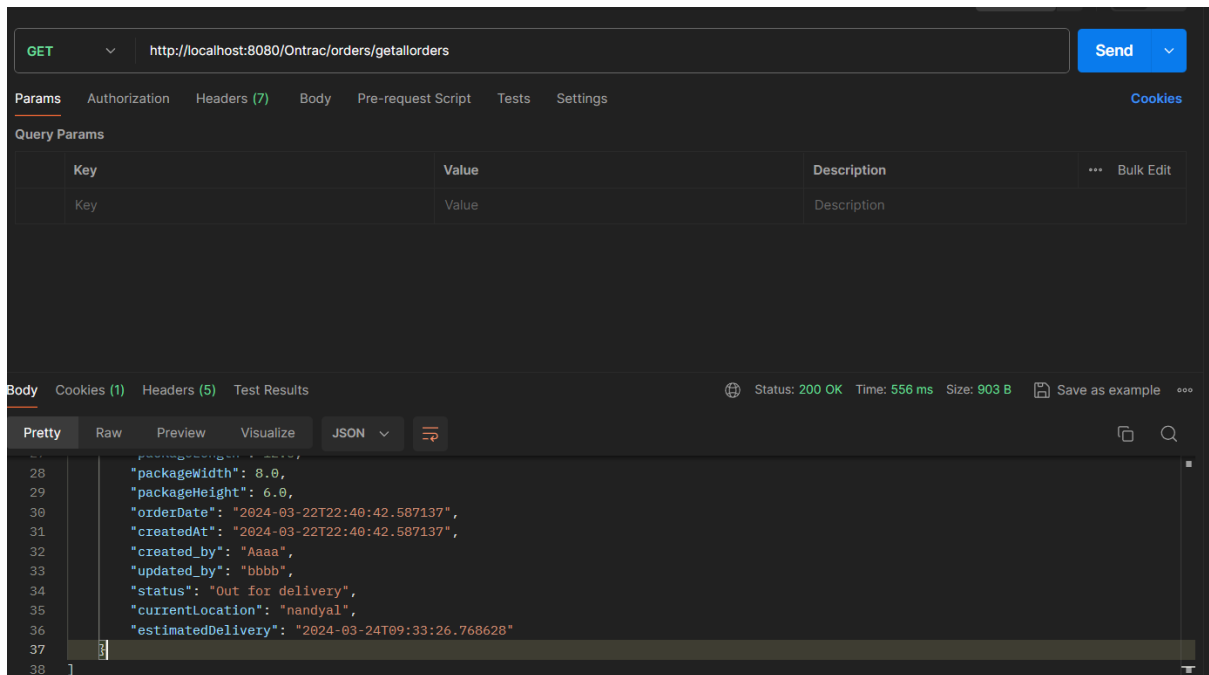
[
{

```



```
"orderId": 2,
"senderAddress": {
  "landmark": "woxsen",
  "city": "hyderabad",
  "state": "telangana",
  "pincode": 50003,
  "country": "India",
  "phonenum": "9876545679",
  "name": "Rushi",
  "addressID": 4,
  "mainAddress": "woxsen university kamkole"
},
"recipientAddress": {
  "landmark": "Next to Library",
  "city": "Vijayawada",
  "state": "Andhra Pradesh",
  "pincode": 54321,
  "country": "India",
  "phonenum": "9876543210",
  "name": "vardhan",
  "addressID": 3,
  "mainAddress": "456 Elm St"
},
"packageWeight": 2.5,
"packageLength": 12.0,
"packageWidth": 8.0,
"packageHeight": 6.0,
"orderDate": "2024-03-22T22:40:42.587137",
"createdAt": "2024-03-22T22:40:42.587137",
"created_by": "Aaaa",
"updated_by": "bbbb",
```

```
"status": "Out for delivery",  
  
"currentLocation": "nandyal",  
  
"estimatedDelivery": "2024-03-24T09:33:26.768628"  
  
}  
  
]
```

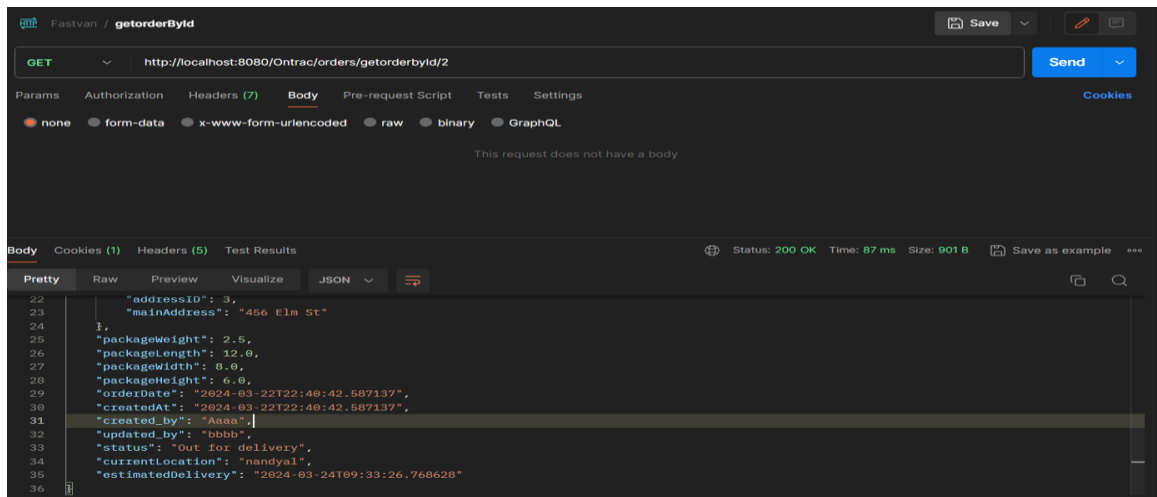


6)GetOrderById: <http://localhost:8080/Ontrac/orders/getorderbyId/2>

Response:

```
{  
  
"orderId": 2,  
  
"senderAddress": {  
  "landmark": "woxsen",  
  "city": "hyderabad",  
  "state": "telangana",  
  "pincode": 50003,  
  "country": "India",  
  "phonenum": "9876545679",  
  "name": "Rushi",  
}
```

```
    "addressID": 4,
    "mainAddress": "woxsen university kamkole"
  },
  "recipientAddress": {
    "landmark": "Next to Library",
    "city": "Vijayawada",
    "state": "Andhra Pradesh",
    "pincode": 54321,
    "country": "India",
    "phonenum": "9876543210",
    "name": "vardhan",
    "addressID": 3,
    "mainAddress": "456 Elm St"
  },
  "packageWeight": 2.5,
  "packageLength": 12.0,
  "packageWidth": 8.0,
  "packageHeight": 6.0,
  "orderDate": "2024-03-22T22:40:42.587137",
  "createdAt": "2024-03-22T22:40:42.587137",
  "created_by": "Aaaa",
  "updated_by": "bbbb",
  "status": "Out for delivery",
  "currentLocation": "nandyal",
  "estimatedDelivery": "2024-03-24T09:33:26.768628"
}
```



UpdateOrderBYID: Updation of the order with the fields , only the updated fields will be changed.

url : http://localhost:8080/Ontrac/orders/updateOrderByID/2

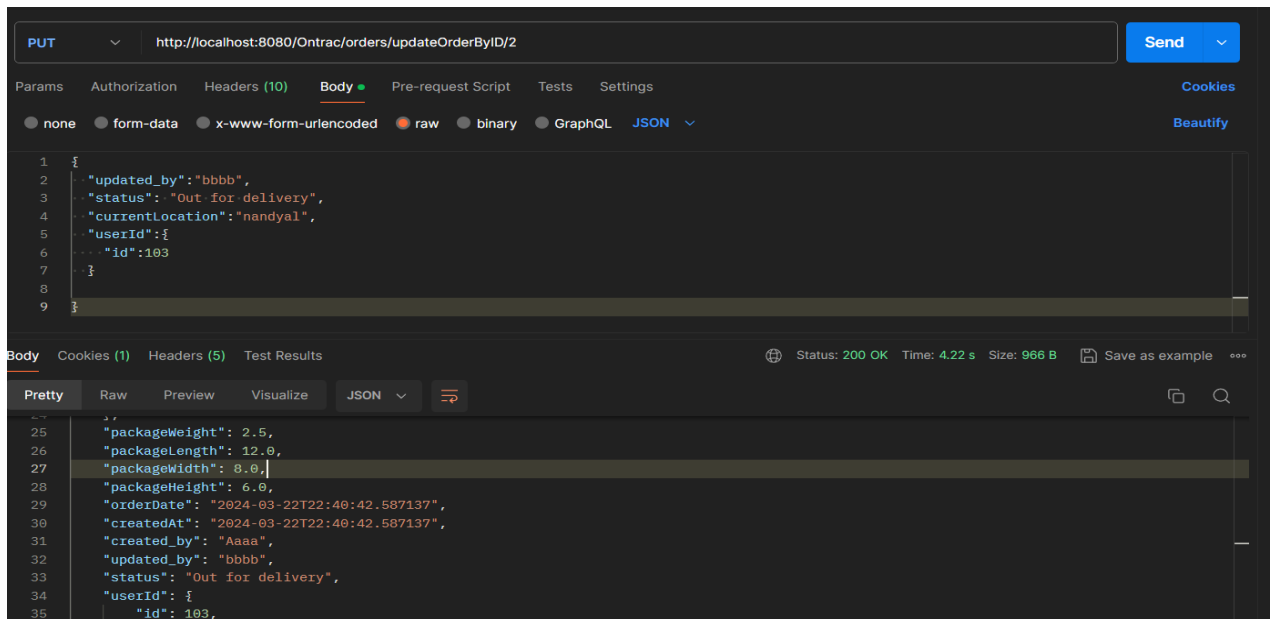
RequestBody:

```
{
  "updated_by": "bbbb",
  "status": "Out for delivery",
  "currentLocation": "nandyal",
  "userId": {
    "id": 103
  }
}
```

ResponseBody:

```
{
  "orderId": 2,
  "senderAddress": {
    "landmark": "woxsen",
    "city": "hyderabad",
    "state": "telangana",
    "pincode": 50003,
    "country": "India",
    "phonenum": "9876545679",
```

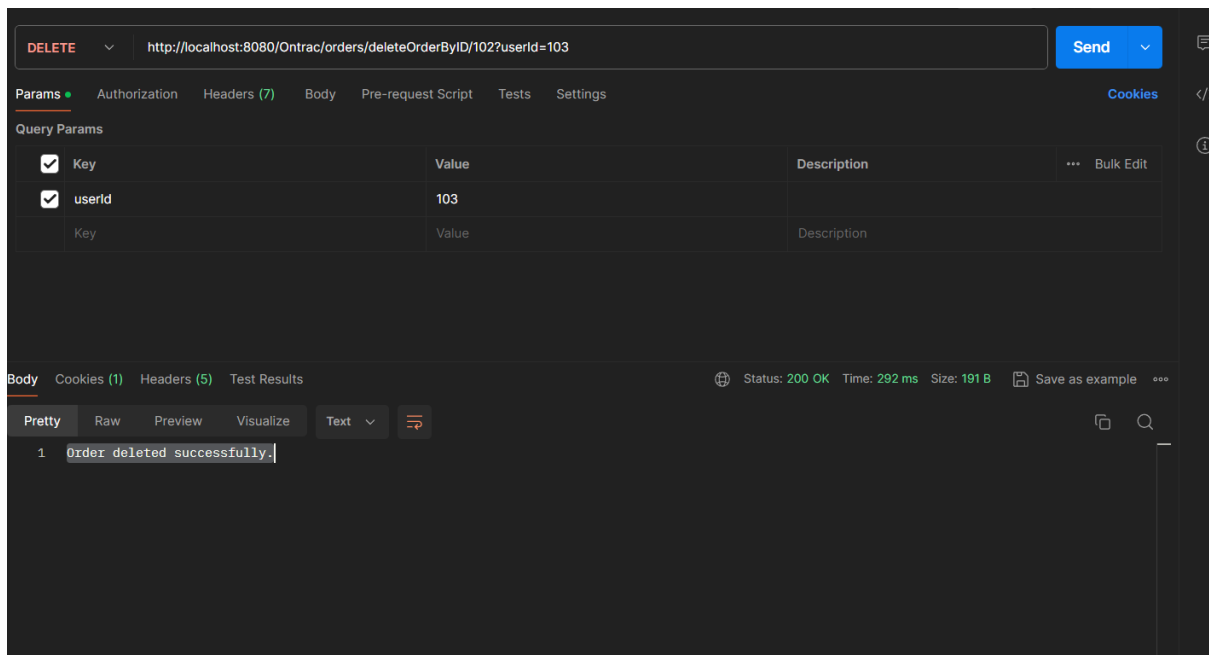
```
"name": "Rushi",
"addressID": 4,
"mainAddress": "woxsen university kamkole"
},
"recipientAddress": {
  "landmark": "Next to Library",
  "city": "Vijayawada",
  "state": "Andhra Pradesh",
  "pincode": 54321,
  "country": "India",
  "phonenum": "9876543210",
  "name": "vardhan",
  "addressID": 3,
  "mainAddress": "456 Elm St"
},
"packageWeight": 2.5,
"packageLength": 12.0,
"packageWidth": 8.0,
"packageHeight": 6.0,
"orderDate": "2024-03-22T22:40:42.587137",
"createdAt": "2024-03-22T22:40:42.587137",
"created_by": "Aaaa",
"updated_by": "bbbb",
"status": "Out for delivery",
"userId": {
  "id": 103
},
"currentLocation": "nandyal",
"estimatedDelivery": "2024-03-23T13:12:32.9468285"}
```



DeleteOrderById: Delete the order if any cancellation happen, only creator and admin can delete.

url: <http://localhost:8080/Ontrac/orders/deleteOrderById/102?userId=103>

Response: Order deleted successfully.

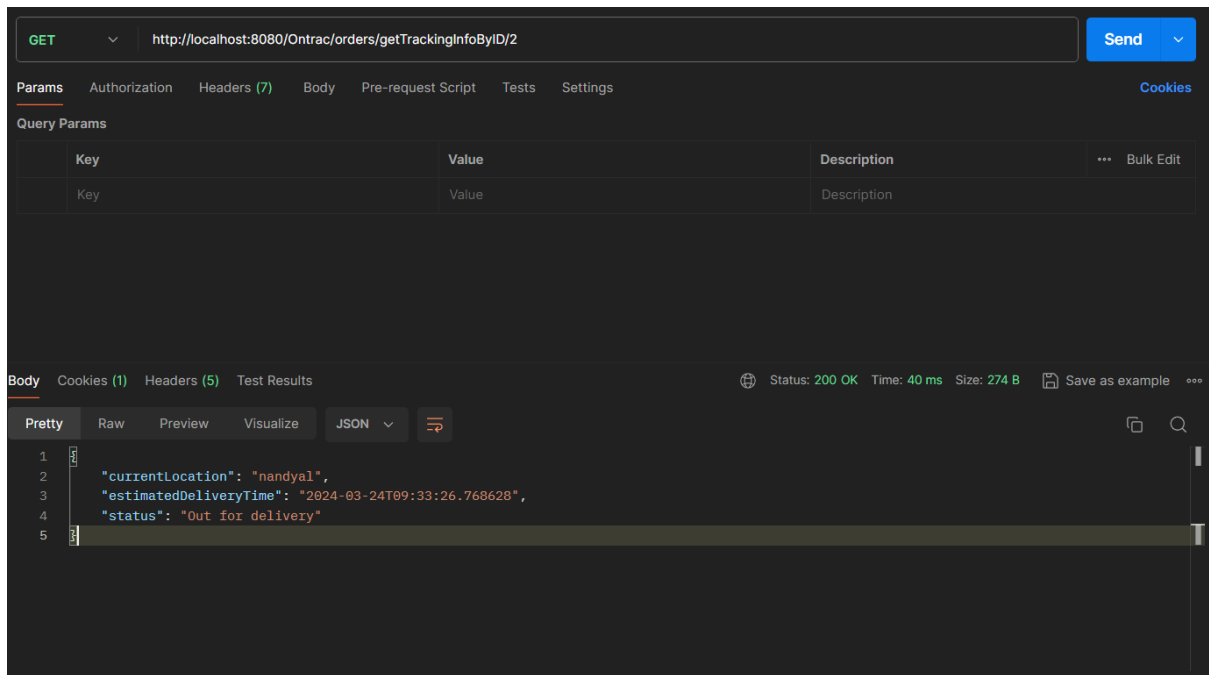


TrackinInfo: This api gives the live location or updates of the order current state.

url: <http://localhost:8080/Ontrac/orders/getTrackingInfoById/2>

Response:

```
{  
  "currentLocation": "nandyal",  
  "estimatedDeliveryTime": "2024-03-24T09:33:26.768628",  
  "status": "Out for delivery"  
}
```



This are the API's written for the project, the below page shows the link for the code and postman documentation details.

Github: [Rushi1820/Courier-Integration-Project](#): A project that describes about the courier details , which have order details, tracking details, user details. For more details read the [readme.file \(github.com\)](#)

Check all the APIs in the Postman Collection.

Assignment Submitted to: FastVan Company

Student Name: G Rushivardhan

College Name: Woxsen University

Email: Rushivardhan.g_2024@woxsen.edu.in

Phno:9603366515

Roll no: 20WU0101025.