

University of kelaniya

Department of Statistics & Computer Science, Faculty of Science



Online Agricultural Product Auction Platform

Connecting Farmers and Buyers for Fair Pricing

Group 05



auction⁺
click

Contents

01

Frontend design

02

Backend

03

Current progress

Frontend design

Purpose

To create a user-friendly platform for farmers and buyers to interact

Features responsive design for seamless use on mobile and desktop.

Design Progress

Wireframes completed using Figma

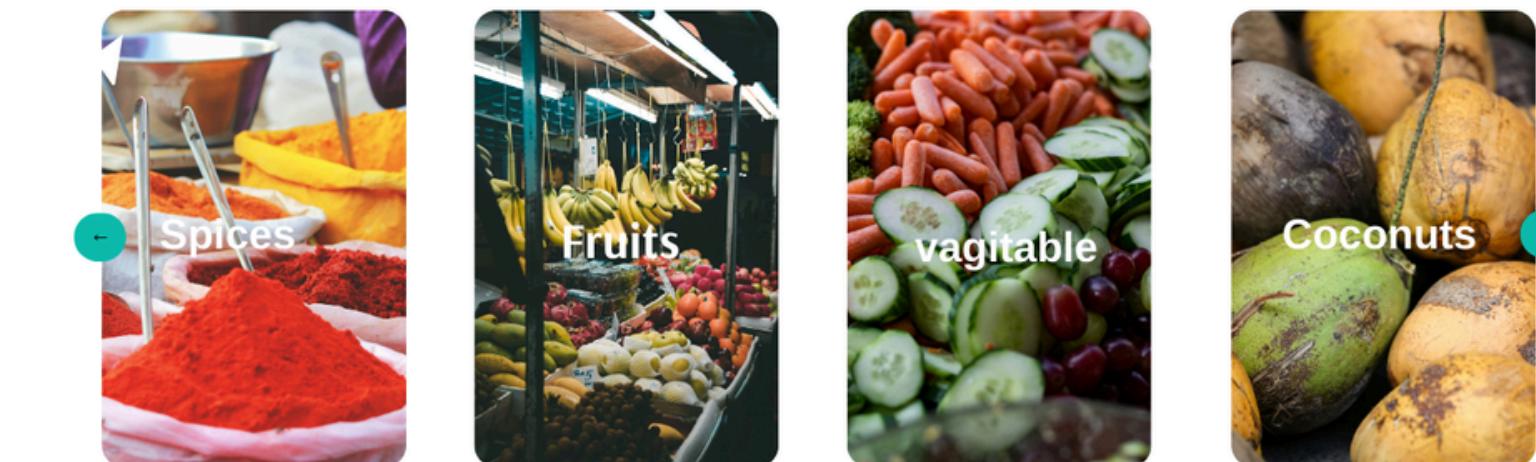
- Home Page: Highlights ongoing auctions and featured products.
- Auction Page: Displays product details, bidding interface, and live updates.
- User Dashboard: Separate views for farmers and buyers to track activity (e.g., bids, products).
- Login/Registration: Easy onboarding for users.

Frontend design

Next Steps

- Transition from Figma designs to frontend code using [framework, e.g., React.js/Angular].

Visuals



catagories

spices
spices
spices
spices
spices

Trems and condisons

spices
spices
spices
spices
spices

Suporrt

spices
spices
spices
spices
spices

community

spices
spices
spices



Backend Services

Purpose

- To handle auction logic, user management, and data storage securely and efficiently.

Technologies Used:

- Spring Boot: Backend framework for logic and API development.
- MongoDB: Database to store product details, auction records, and user information.
- Postman: Tool for testing APIs.

Backend Services

Key Services Implemented

User Management

- Registration for farmers and buyers.
- Login and authentication

Auction Management

- Start and end auctions.
- Real-time bidding logic.

Product Listings

- CRUD operations for products (create, update, delete).

Backend Services

Key Services Implemented

Bid Tracking

- Store bids with timestamps for auction history
- Display highest bid live.

Database Design

- Users Collection: Stores user information (farmers, buyers).
- Products Collection: Stores auctioned product details (e.g., crop type, quantity, starting price).
- Bids Collection: Tracks bidding activity.

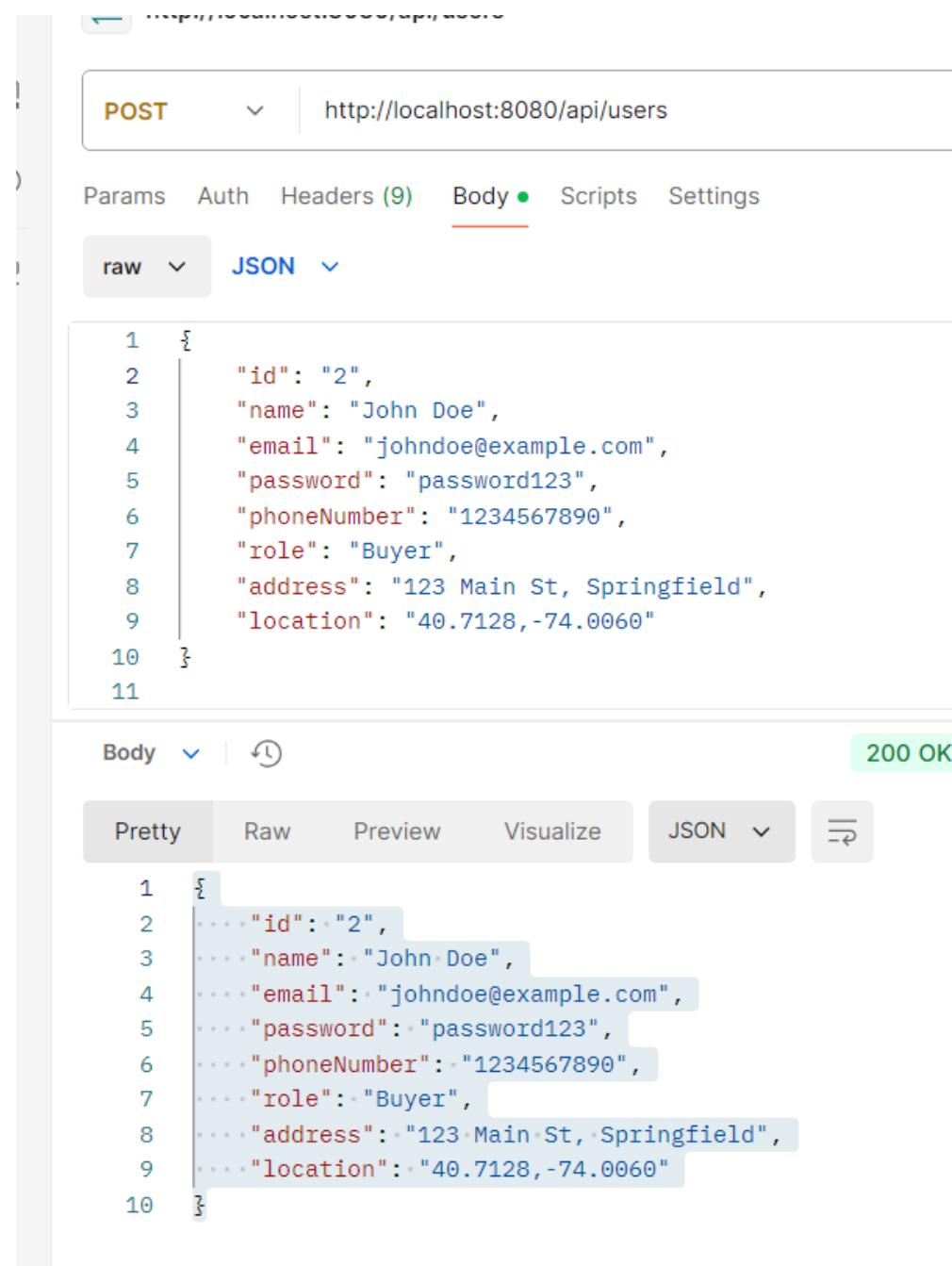
Backend Services

Next Steps

- Finalize all API integrations.
- Implement auction closing logic and notifications.

Backend Services

Visuals post method



POST http://localhost:8080/api/users

Body (JSON)

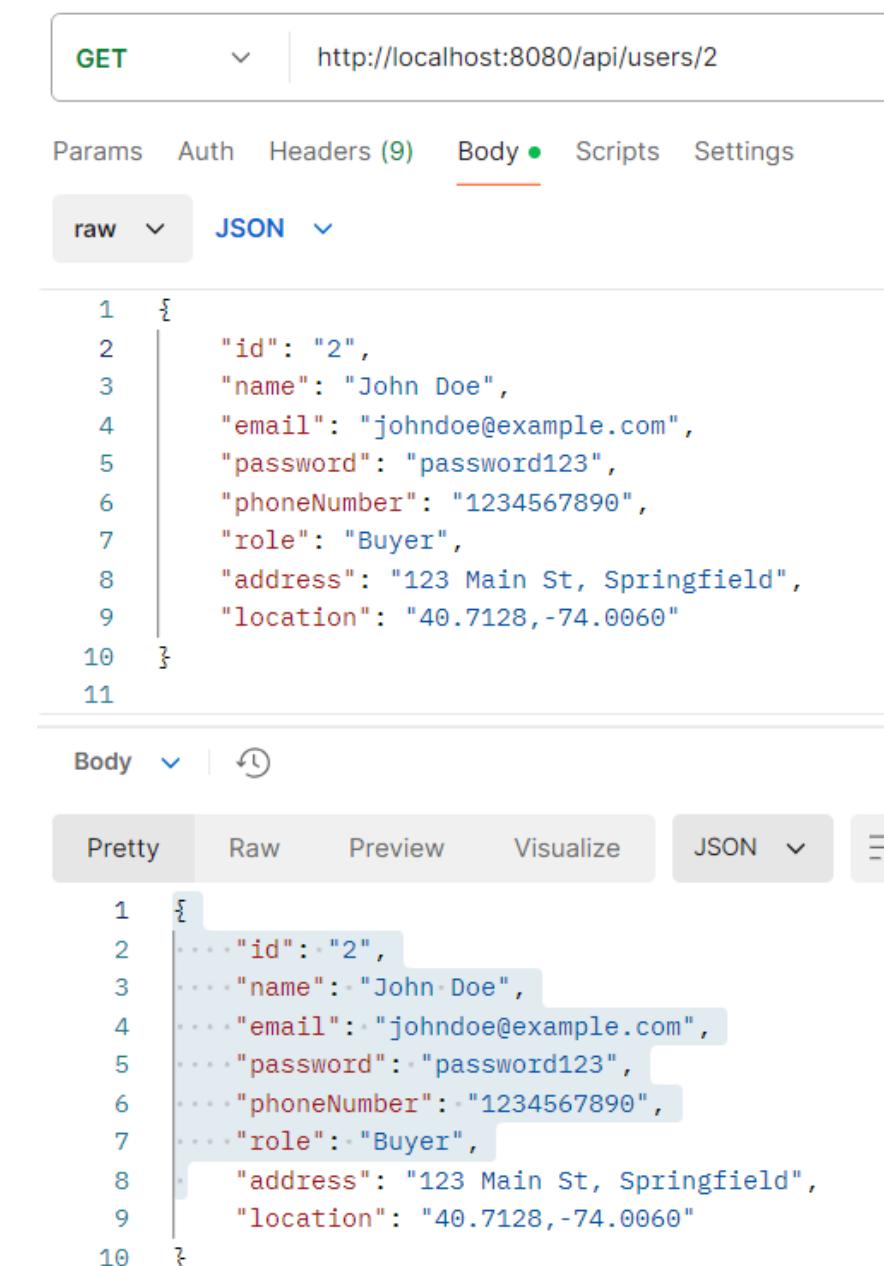
```
1 {  
2   "id": "2",  
3   "name": "John Doe",  
4   "email": "johndoe@example.com",  
5   "password": "password123",  
6   "phoneNumber": "1234567890",  
7   "role": "Buyer",  
8   "address": "123 Main St, Springfield",  
9   "location": "40.7128,-74.0060"  
10 }  
11
```

200 OK

Pretty Raw Preview Visualize JSON

```
1 {  
2   "id": "2",  
3   "name": "John Doe",  
4   "email": "johndoe@example.com",  
5   "password": "password123",  
6   "phoneNumber": "1234567890",  
7   "role": "Buyer",  
8   "address": "123 Main St, Springfield",  
9   "location": "40.7128,-74.0060"  
10 }
```

get method



GET http://localhost:8080/api/users/2

Body (JSON)

```
1 {  
2   "id": "2",  
3   "name": "John Doe",  
4   "email": "johndoe@example.com",  
5   "password": "password123",  
6   "phoneNumber": "1234567890",  
7   "role": "Buyer",  
8   "address": "123 Main St, Springfield",  
9   "location": "40.7128,-74.0060"  
10 }  
11
```

Body

Pretty Raw Preview Visualize JSON

```
1 {  
2   "id": "2",  
3   "name": "John Doe",  
4   "email": "johndoe@example.com",  
5   "password": "password123",  
6   "phoneNumber": "1234567890",  
7   "role": "Buyer",  
8   "address": "123 Main St, Springfield",  
9   "location": "40.7128,-74.0060"  
10 }
```

Backend Services

Visuals

mongobd compass

bids

Storage size: 20.48 kB Documents: 1 Avg. document size: 155.00 B Indexes: 1 Total index size: 20.48 kB

deliveries

Storage size: 20.48 kB Documents: 1 Avg. document size: 232.00 B Indexes: 1 Total index size: 20.48 kB

notifications

Storage size: 20.48 kB Documents: 1 Avg. document size: 181.00 B Indexes: 1 Total index size: 20.48 kB

payments

Storage size: 20.48 kB Documents: 1 Avg. document size: 227.00 B Indexes: 1 Total index size: 20.48 kB

payments

Storage size: 20.48 kB Documents: 1 Avg. document size: 227.00 B Indexes: 1

products

Storage size: 20.48 kB Documents: 1 Avg. document size: 375.00 B Indexes: 1

reviews

Storage size: 20.48 kB Documents: 1 Avg. document size: 198.00 B Indexes: 1

transactions

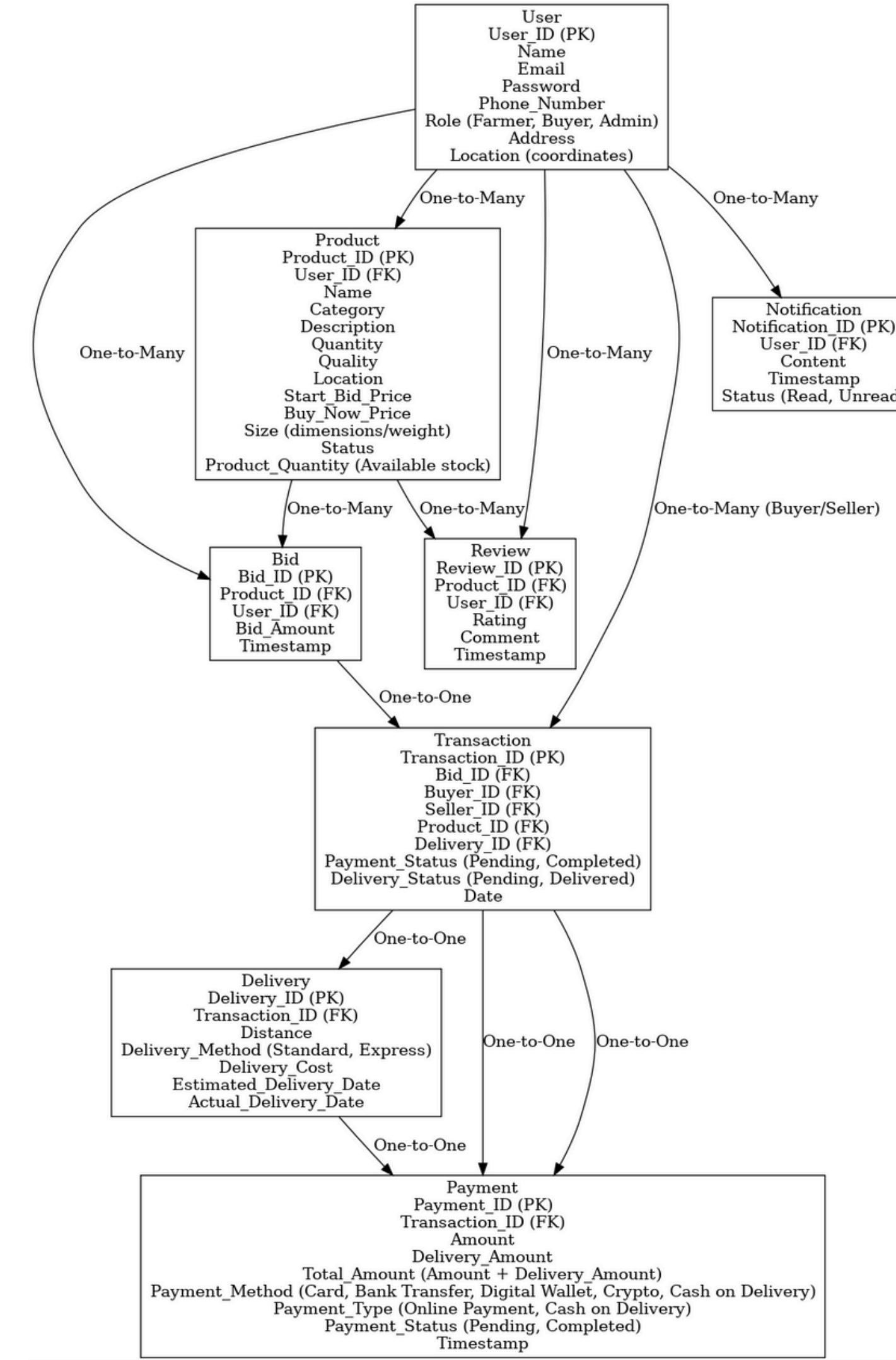
Storage size: 20.48 kB Documents: 1 Avg. document size: 264.00 B Indexes: 1

users

Storage size: 20.48 kB Documents: 5 Avg. document size: 182.00 B Indexes: 1

Backend

ER diagrams



Current Progress (Backend)

- All essential MongoDB collections (Users, Products, Bids ...all tables) created.
- REST APIs for:
 - User registration and login.
 - Product CRUD operations.
 - Bid submissions and retrieval.
- APIs tested successfully with Postman.

Current Progress (Frontend)

- Figma designs for all pages are complete and ready for development.
- Coding started for the Login/Registration page and Home Page using [frontend framework].

Backend

Next Steps

- Complete integration between frontend and backend.

PS/2020/023

B.L.L Oshan

PS/2020/275

M.N.A Malik

PS/2020/005

K.S.D. Wickramanayake

Thank You

