



# A Project report On

# Real-time Pizza Ordering System

Submitted by

Inuri Gunathilaka

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Under The Guidance of:

Mr. Samitha Nanayakkara

(Lecturer, Dept. of ICT)

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Department of Information and Communication Technology

Faculty of Humanities and Social Sciences

University of Sri Jayewardenepura

## 1. ABSTRACT

Real-time Pizza Ordering System is proposed here which simplifies the pizza ordering process. The proposed system shows a user interface and update the menu with all available options so that it eases the customer work. Customer can choose more than one item to make an order and can view order details before logging off. The order confirmation is sent to the customer. The order is placed in the queue and updated in the database and returned in real time. This system assists the staff to go through the orders in real time and process it efficiently with minimal errors.

Index Terms — A frontend (React) website, a Backend (NodeJS + ExpressJS) and a database (MongoDB)

.

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## 4. Summary

# 2. Problem description

### i. <u>Introduction</u>

The "Online Pizza Ordering System" has been developed to override the problems prevailing in the practicing manual system. This software is supported to eliminate and, in some cases, reduce the hardships faced by this existing system. Moreover, this system is designed for the particular need of the company to carry out operations in a smooth and effective manner.

No formal knowledge is needed for the user to use this system. Thus, by this all it proves it is user-friendly. Online Food Ordering System, as described above, can lead to error free, secure, reliable and fast management system. Our System come with remote access features, which will allow you to manage your workforce anytime, at all times. These systems will ultimately allow you to better manage resources.

#### ii. System specification

#### Functionalities provided by pizza ordering system are as follows:

- Provides the searching facilities based on various factors. Such as Food Item, Customer,
   Order, Confirm Order.
- System manage the payment details online for order details, confirm order details, food item.
- Manage the information of food items.
- Editing, adding and updating of records is improved which results in proper resource management of food item data.
- Manage the information of order.

#### Technical Specification provided by pizza ordering system are as follows:

The system is made up of three layers. At the top there is the GUI (Graphical User Interface) layer, the middle layer is the storage and query manager, the bottom layer is the underlying database.

- ❖ GUI There are 2 separate GUI's. One is for the customers to create orders and one is for employees for processing orders and administration purposes.
- ❖ Storage and Query manager The storage and query manager layer is responsible for information storage, retrieval, authorizations and error checking. This layer allows selecting, adding, updating, deleting entities and relations in the database by using different queries.
- Database layer The database layer contains all the data of entities and their relationships.

#### iii. Requirements

### Functional Requirements

### 1. <u>Customer</u>

A Customer who will be able to search Menu items on the platform listed by store and can order them online and get delivered at home through the platform.

- > The user must be able to create a new order.
- > The user must be able to customize a pizza by:
  - o The user must be able to view a list of available ingredients.
  - O The user must be able to add an ingredient to a custom pizza.
  - o The user must be able to remove an ingredient from a custom pizza.
- The user must be able to add a custom pizza to an order.
- ➤ The user must be able to delete a custom pizza from an order.
- ➤ The user must be able to see the total price of an order
- The user must be able to add the name and address of the customer.
- The user must be able to clear the current order to start a new one.

#### 2. Administrators

The system admin can list menu items on the platform, get orders from the customers, and get delivered them to customer's place through platform's delivery personals or through delivery person of himself.

- ➤ The administrator must be able to log in and out.
- The administrator must be able to add/delete/edit orders.
- The administrator must be able to add/delete/edit ingredients.
- The administrator must be able to add/delete/edit other users.
- The administrator must be able to view an order log.
- Only users with respective rights (administrators) must be able to use all these "Administrators" features.

#### **Non-Functional Requirements**

The system will run as a database with a website as user interface. As performance requirement the system must be accessible 24 hours a day, seven days a week. Due to the nature of the system as an ordering website, the system must have a low response time, preferably shorter than second, with a maximum of five seconds. The exception is viewing order logs which could have a higher response time (of seconds) as the log increases in size over time.

### 3. Results

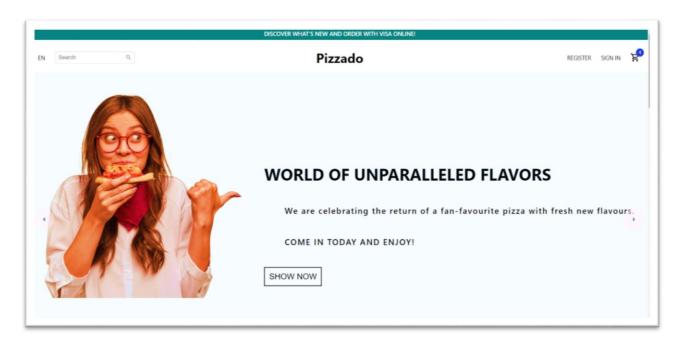
i. System overview including capabilities and GUI

# Implementation-Frontend

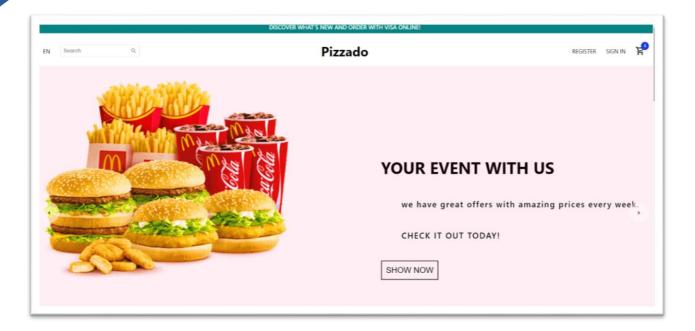
# **Home Page**

This is homepage, which has created absolute slider without using any library. It has consist of categories, products and other components. This was created using functional reusable react components react hooks and start components. When I'm clicking right side and as you can see secound one. When clicking again the third one and it's going to first run again. Using animation make the page look better as well as timing function.

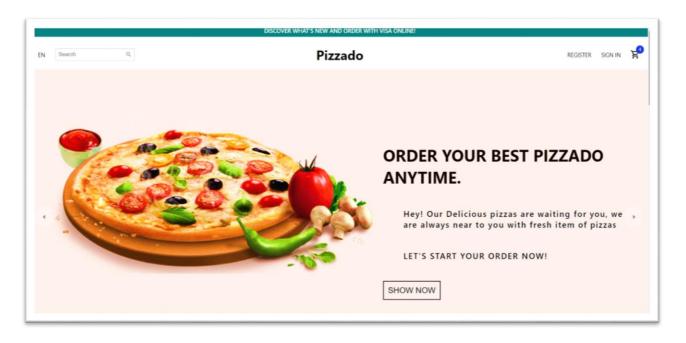
#### 1st Slide

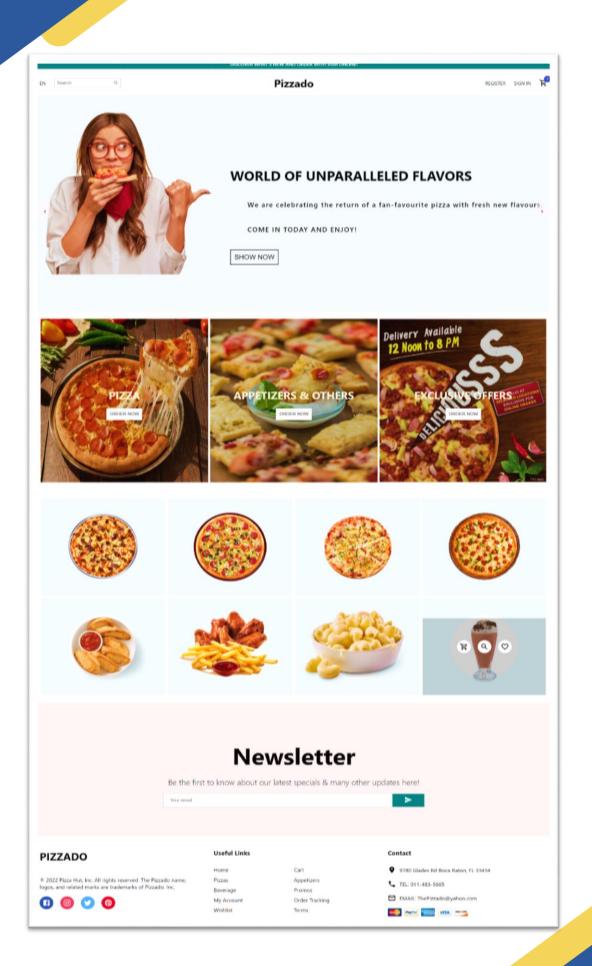


# 2<sup>nd</sup> Slide

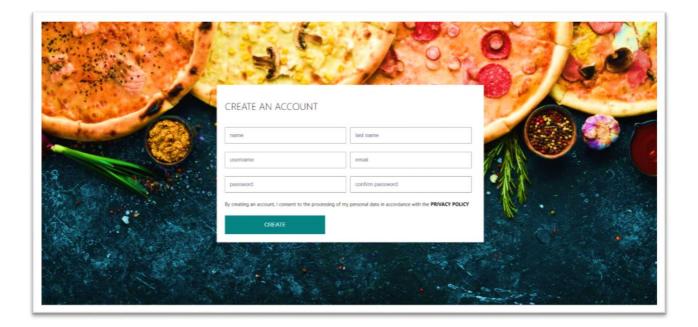


### 3<sup>rd</sup> Slide

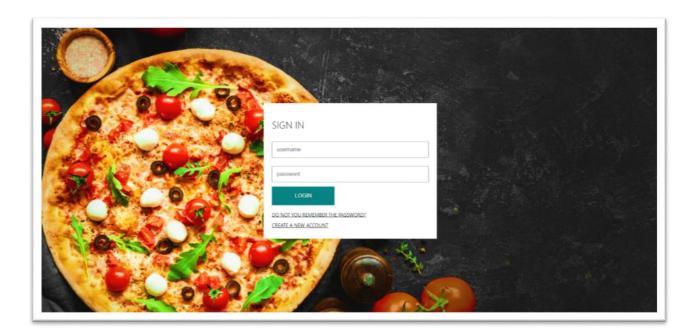




# **Register Page**

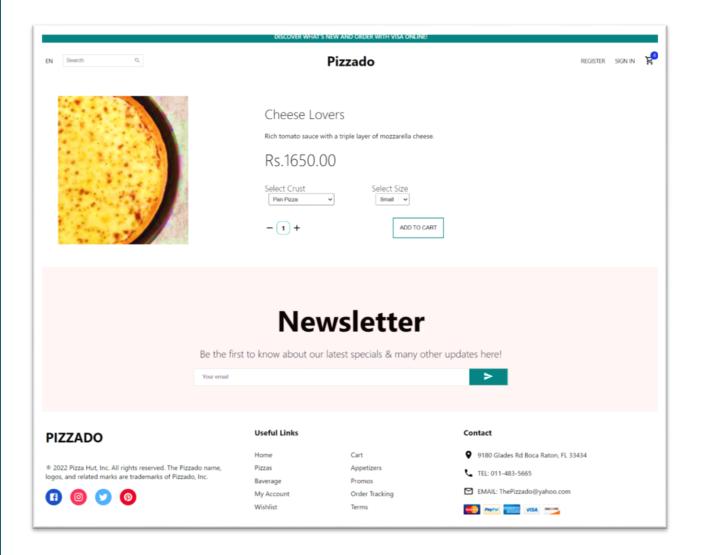


# Login Page

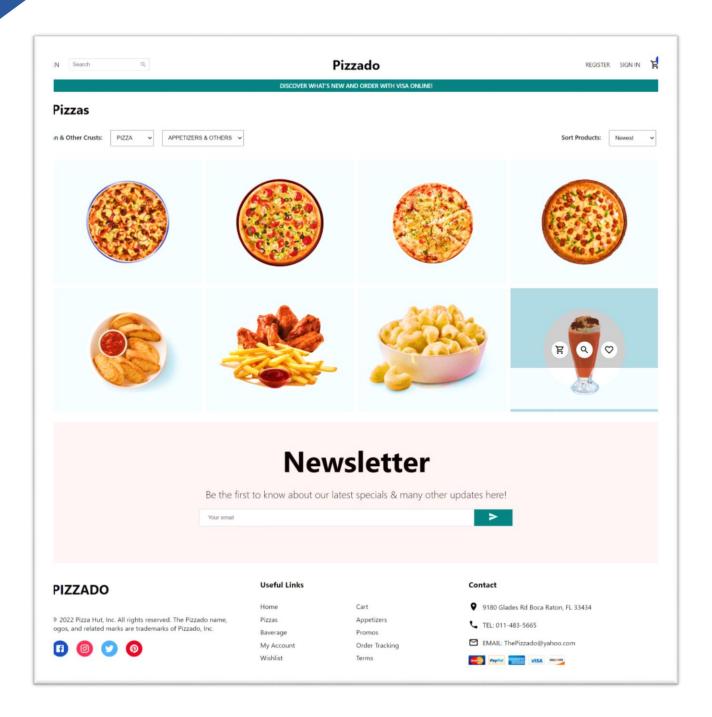


# **Single Product Page**

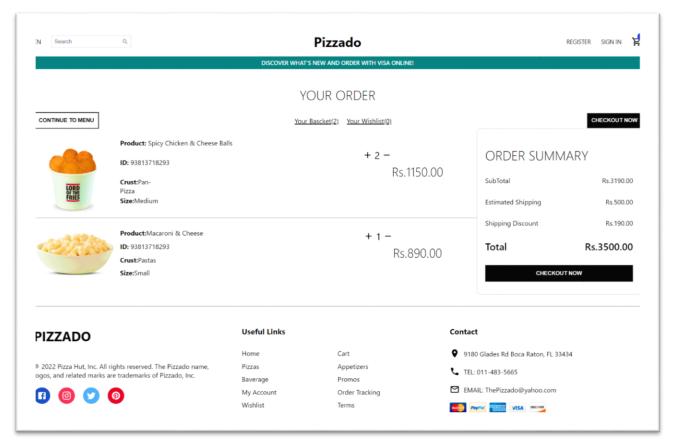
In here left side will show our product image and right side will be the information, purchase button.



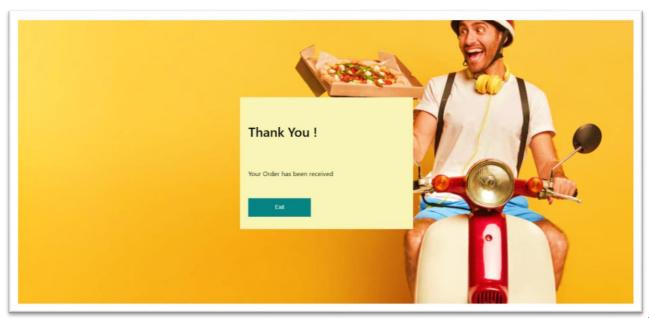
# **Product List**



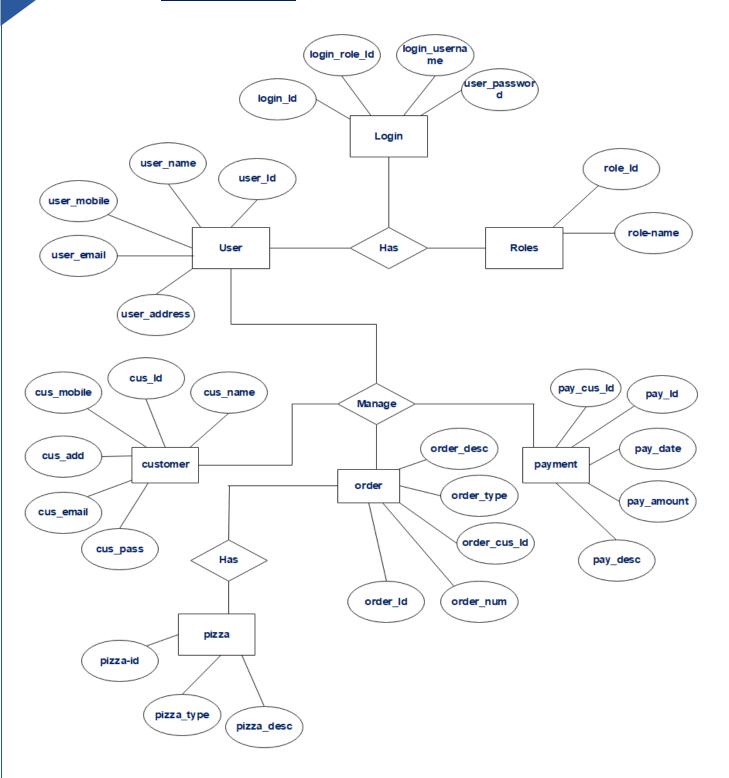
# **Shopping Cart**



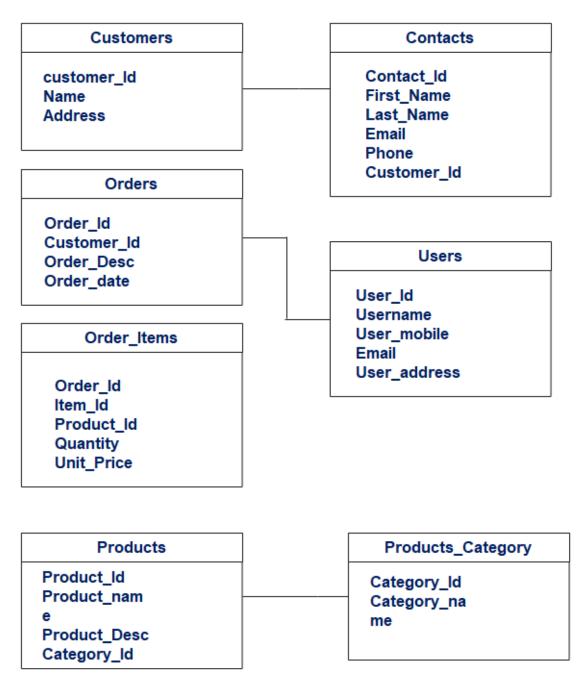
# **Checkout confirm Message**



# ii. Database Structure



ER Diagram for Pizza Ordering System



Relational Schema for Pizza Ordering System

# iii. A detailed explanation of each API implementations and respective Endpoints

This is a Full Stack (MERN) Pizza Delivery Application developed using React and React for Frontend, Node JS for Runtime environment, Express JS for Backend Routing and Mongo DB for Database.

In this course implement the following features in the Pizza Delivery Application,

- Working with Redux
- Add to cart Feature
- Update Quantity in cart
- Delete Products from cart
- User Authentication
- Common Payment Gateway Integration
- Paying amount with stripe
- Placing Orders
- Store orders in database
- Retrieve Orders to user profile
- User Dashboard
- Admin Dashboard
- Manage Users , Products , Orders in Admin Panel
- Protected routes for admin panel

## Sign up/Login

The admin will be able to sign up/login to their account. A admin details consists of admin Name, Email, Address, City, State, Country, Contact Number, Password. If a user already has an account then he/she can enter the credentials as email id and password. If the credentials are incorrect, users will be redirected to log in page and a message will be displayed that, username or password is not valid.

#### **Dashboard**

**Profile** — The System Name, photo, Address (City, State, Country), Location from google search suggest API, Restaurant Contact Number, Delivery postal code areas, Edit Details.

**Status** (Open / Closed) — This status will be managed by the restaurant owner and the same will reflect in the Customer's application. For example, if the status is set "Closed" by the owner, it will show "Closed Now" to the customer. If 'closed now' status, the restaurant will not receive any orders. If the status is set "Open" by the admin, it will show "Open Now" to the customer. If 'Open now' status, the restaurant will receive any orders.

# **Manage Orders**

Active orders — The orders will have the details as Search by keyword, Customer Name, Customer Address, Customer Contact Number, Dish Name, Crust Type, Quantity, Select order status (Confirm, Order in making and order picked up), Order Status (Confirm / Order in making / Order picked up by the Delivery person/ Delivered / Cancelled. These status except 'delivered' will be managed by the system. As soon as the 'order is in making' a request is sent to the nearby Delivery person's app. The one who accepts, his/her GPS location will be tracked), Delivery person Name, Delivery person Contact Number and Total Amount. The Delivery person name, Delivery person contact number will be visible only after the nearby Delivery person has accepted the request.

Completed orders — The orders will have the details as Search by keyword, Order id,

Customer Name, Customer Address, Customer Contact Number, Delivery person Name,

Delivery person Contact Number, Dish Name, Crust Type, Quantity, Status (delivered) and Total

Amount.

**Received rating** — The Customer name, order id, order date, Star rating (out of five).

**Notification** — Received an order, Received rating, Customer cancelled the order

**Account setting** — The user will be able to change password and manage notification.

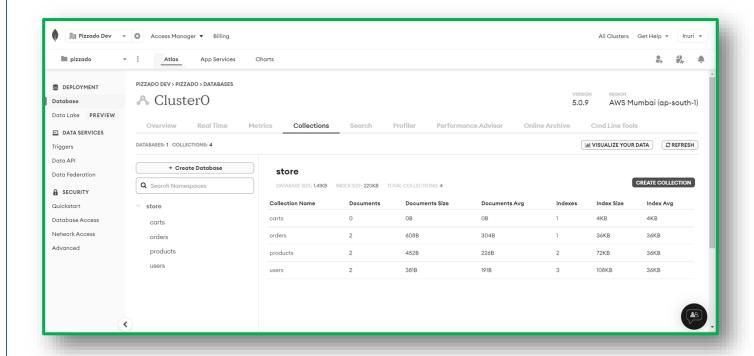
**Logout** — The user can logout to there account.

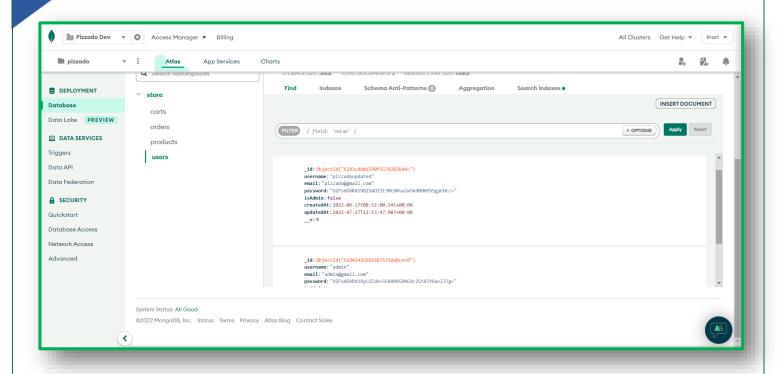
# Backend

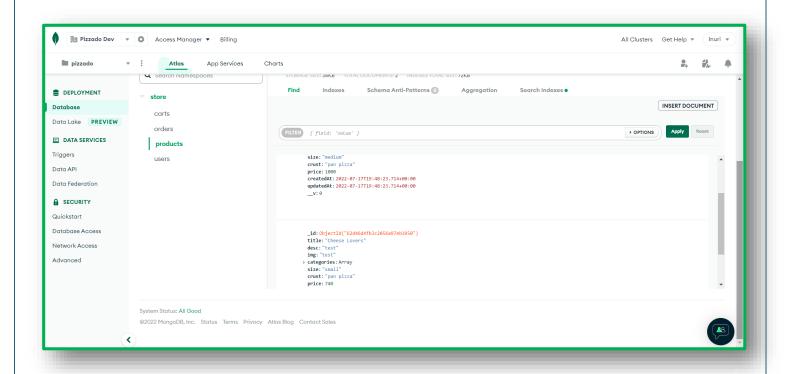
# Database

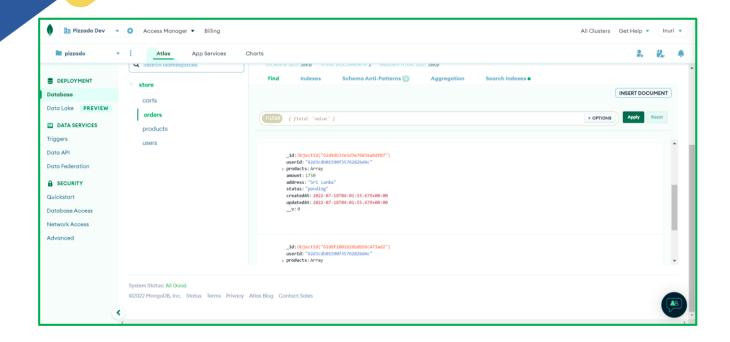
Create a new cluster with preferable credentials. After setting up the cluster I have connect

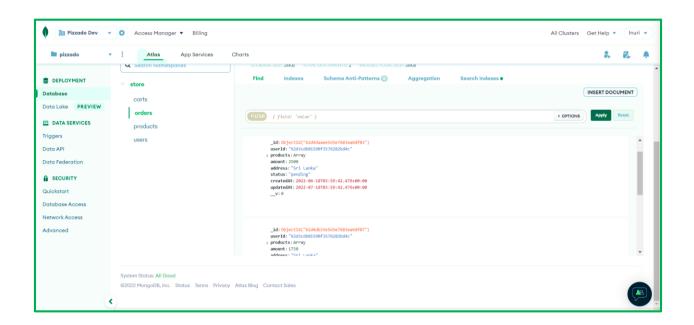
Pizzado-Online Pizza Delivery Application / API to the database (store).



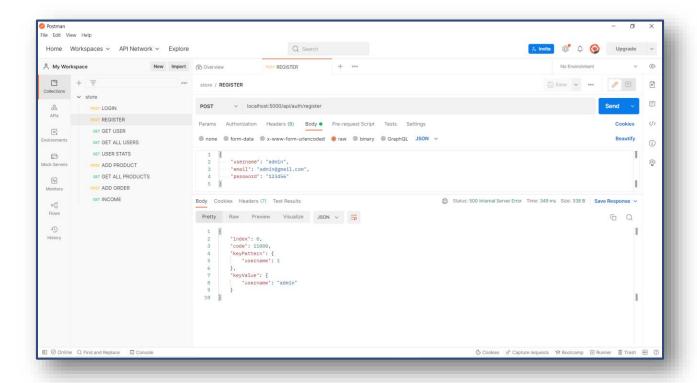


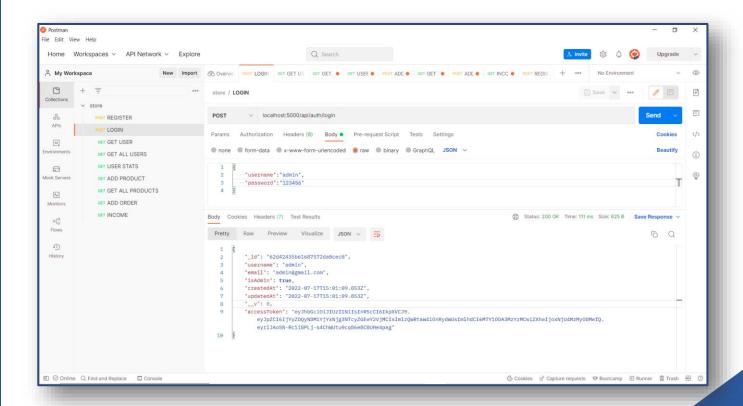


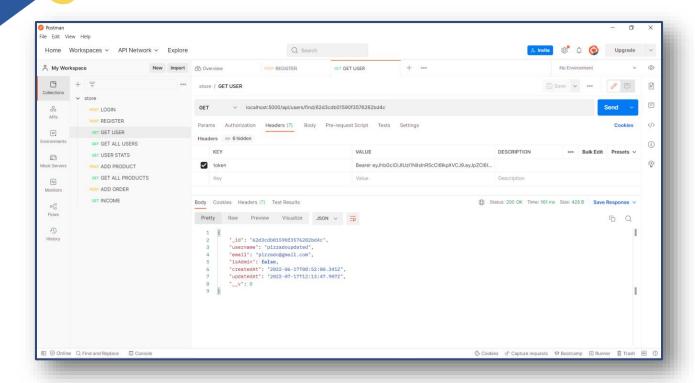


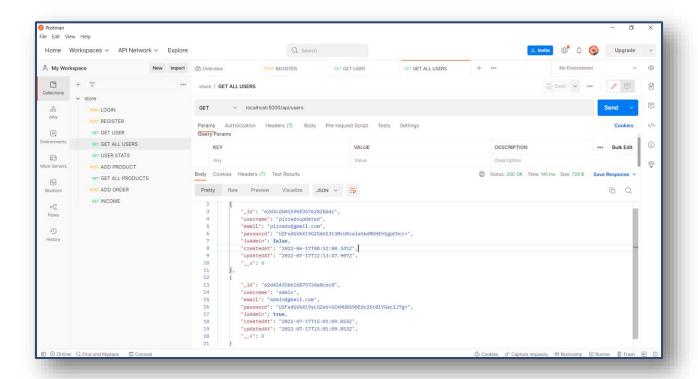


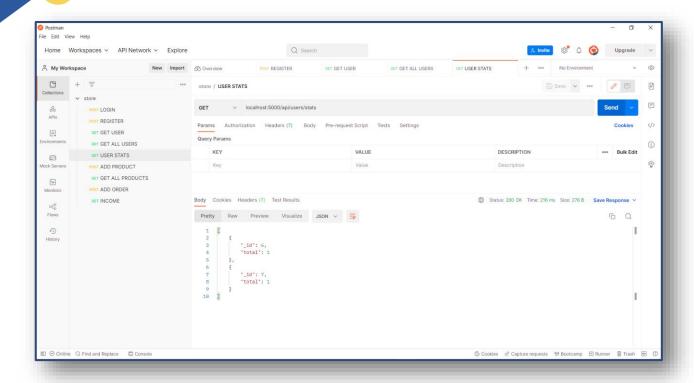
## Postman

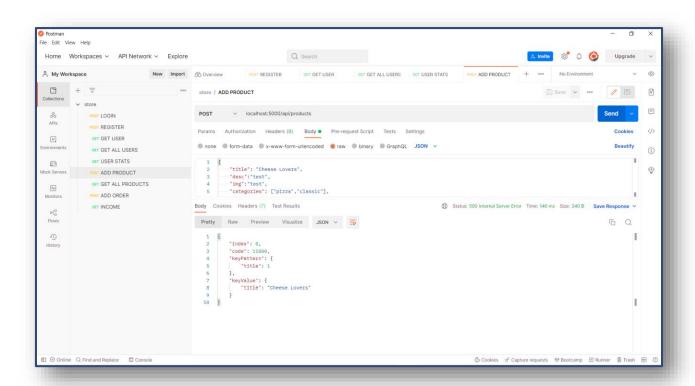


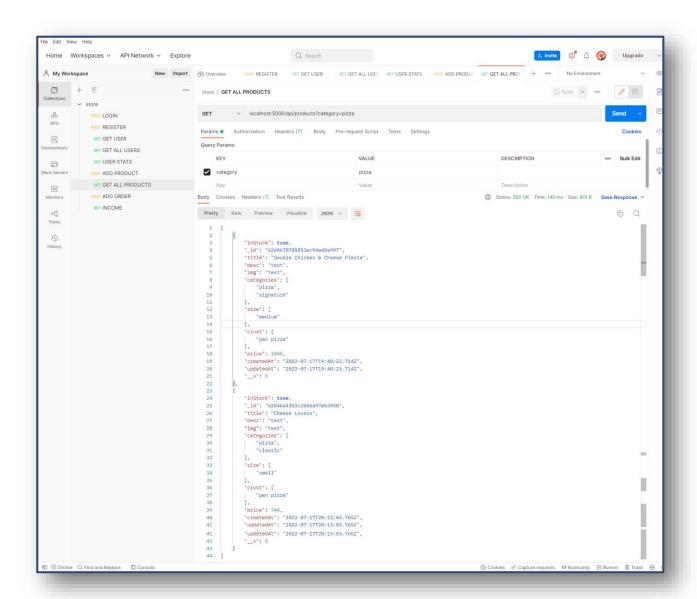


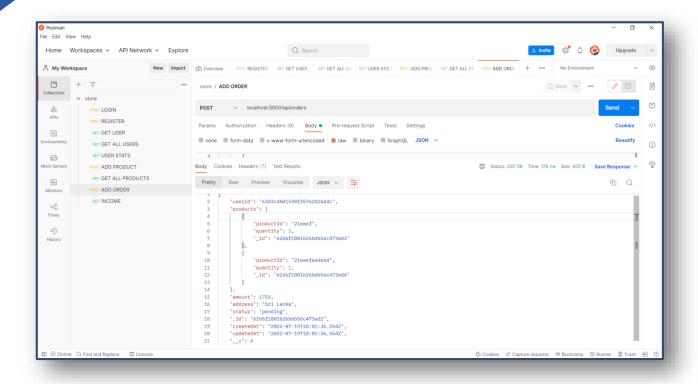


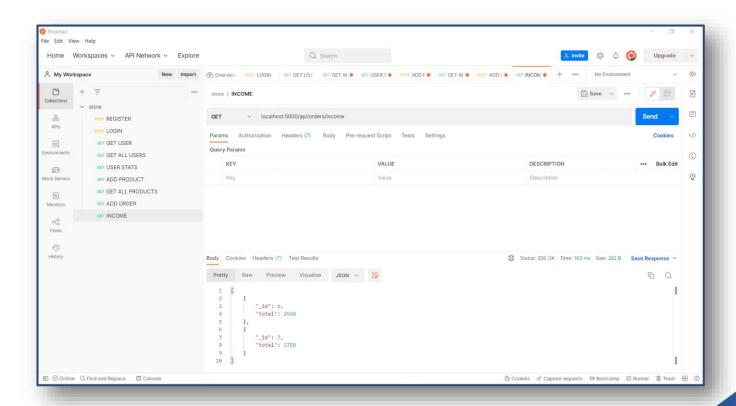












## **Summary**

An online pizza ordering system is developed where the customers can make an order for the food and avoid the hassles of waiting for the order to be taken by the waiter. Using the application, the end users register online, read the E-menu card and select the food from the e-menu card to order food online. Once the customer selects the required food item the chef will be able to see the results on the screen and start processing the food. This application nullifies the need of a waiter or reduces the workload of the waiter. The advantage is that in a crowded restaurant there will be chances that the waiters are overloaded with orders and they are unable to meet the requirements of the customer in a satisfactory manner. Therefore by using this application, the users can directly place the order for food to the chef online.

The system also enables the restaurant to know the items available in real time and make changes to their food and beverage inventory based on the orders placed and the orders completed.

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