Project Title:

Toolify Tool Utility Website

Name: Mohammad Sadiq Shaikh

College: JVM MEHTA DEGREE COLLEGE

Roll No: 1838

Guide Name: MRS.Janhavi Kshirsagar

1. Introduction

The Food Delivery Website is a web-based platform designed to connect customers with a variety of restaurants for online food ordering and delivery. Developed using the MERN stack (MongoDB, Express.js, React.js, and Node.js), this project simplifies the process of selecting, ordering, and paying for meals online. Customers can browse through menus, place orders, and have their food delivered to their doorstep.

The platform integrates features such as real-time updates on order status, payment gateway integration, and a user-friendly interface. Restaurants can manage their listings, update menus, and track orders. The system is built to be scalable, secure, and responsive for use on any device.

2. Problem Definition

With the rapid increase in demand for online food delivery services, many small and medium-sized restaurants struggle to compete with larger delivery platforms. Additionally, customers face the following issues:

- **Limited options:** Access to a limited number of restaurants, especially in smaller areas.

- **Delayed delivery:** Poor tracking and order management systems leading to delays.

- **Inconsistent user experience:** Non-responsive or difficult-to-use websites or mobile applications.

This project aims to address these issues by providing an easy-to-use platform that can be adopted by both customers and restaurants, with efficient order management, real-time tracking, and a better overall user experience.

3. Why This Topic Was Chosen

This project was selected because of the growing reliance on food delivery services, especially after the COVID-19 pandemic. Key reasons include:

- Practical Application: Food delivery services are increasingly becoming a part of everyday life.

- Technological Challenge: Developing a real-time application using the MERN stack offers a great learning experience.

- Potential Impact: This project has the potential to help small businesses and improve the food delivery process for customers.

4. Objective and Scope of the Project

Objectives:

- To create an efficient, user-friendly food delivery website for customers and restaurants.

- To implement features such as live order tracking, menu browsing, and secure online payments.

- To provide a platform that is easily scalable and capable of handling a large user base.

Scope:

- The platform will cater to two types of users: customers and restaurants.

- Customers can search for restaurants, browse menus, place orders, and track delivery status.

- Restaurants can manage orders, update menus, and track their performance.

- Future enhancements may include AI-based recommendations, payment gateways , integration with delivery services, and user reviews.

5. Features/Benefits

- **User Authentication:** Secure registration and login for both customers and restaurants.

- **Menu Browsing:** Customers can browse through restaurant menus and filter items based on preferences (e.g., deserts, sandwiches, noodles etc).

- **Order Placement:** Simple and quick order placement process with real-time updates.

- **Live Order Tracking:** Customers can track their order in real-time, from preparation to delivery.

- **Restaurant Management:** Restaurants can manage their profiles, update menus, and track orders.

- **Responsive Design**: The website will be mobile-friendly, providing an optimal experience on all devices.

- **Notification System:** Real-time notifications for customers and restaurants regarding order status.

6. Modules Description

1. **User Module:** Handles customer and restaurant authentication, profile management, and dashboard functionality.

2. **Menu Module:** Allows restaurants to upload and update their menus, and customers to browse and filter dishes.

3. **Order Module**: Manages the entire order lifecycle, from placement to delivery, for both customers and restaurants.

4. **Tracking Module:** Provides real-time updates on order status for both customers and restaurants.

7. Hardware and Software Requirements

Hardware:

- PC with a minimum of 8GB RAM and 256GB storage.

- Stable internet connection for development, testing, and deployment.

Software:

- Frontend: React.js, HTML, CSS, JavaScript

- Backend: Node.js, Express.js

- Database: MongoDB

- Tools: Git, Visual Studio Code, Postman

8. Methodology

The project will follow the Agile development methodology to ensure continuous improvement and adaptation throughout the development process. The main phases are:

1. **Requirement Gathering:** Understand the needs of users (customers and restaurants).

2. **System Design:** Create detailed wireframes, define database schemas, and plan the overall architecture.

3. **Frontend Development**: Build the user interface using React.js to ensure responsiveness and interactivity.

4. **Backend Development:** Use Node.js and Express.js to handle server-side operations and business logic.

5. **Database Integration:** Use MongoDB to store and manage user data, orders, and restaurant information.

6. Testing: Perform unit, integration, and user acceptance testing.

9. Time Schedule

Task	Start Date	End Date
Requirement Gathering	4th July	20th July
System Design	22th July	9th Aug
Frontend Development	11th Aug	30th Aug
Backend Development	1st Sept	15th Sept
Database Integration	16th Sept	22nd Sept
Testing and Debugging	23rd Sept	30th Sept

10. Acknowledgement

I would like to express my sincere gratitude to my project guide, Mrs. Ashwini Gangal , for their constant guidance and valuable feedback throughout this project. I also extend my thanks to JVM Mehta Degree College for providing the necessary infrastructure and support. Lastly, my thanks go to GreatStack YouTube channel for their tutorials and insights on developing a food delivery platform using the MERN stack.

11. Conclusion

The Food Delivery Website developed using the MERN stack aims to provide an efficient and easy-to-use platform for both customers and restaurants. By integrating modern web

technologies this project offers a scalable solution to streamline the online food ordering process. This project has enhanced my knowledge in web development, database management, and real-time application handling.

12. References

1. GreatStack YouTube Channel - MERN Stack Food Delivery Tutorial

2. [MongoDB Documentation](https://www.mongodb.com/docs/)

3. [React.js Documentation](https://reactjs.org/docs/getting-started.html)

4. [Express.js Documentation](https://expressjs.com/en/starter/installing.html)

5. [Node.js Documentation](https://nodejs.org/en/docs/)