CASE SCENARIO -

TOPIC – XYZ Food Ordering Mobile App, imagine you have the responsibility to come up with a delivery scheduling feature (option to order for a later time now itself). How do you go about it? Submit a Feature Requirement/Solution Document for this.

FUNCTIONAL REQUIREMENT DOCUMENTATION

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Project Description –

1) Project Goal-

The goal of the project, as outlined in this document, is to *"launch a new delivery schedule feature (option to order for a later stage now itself)"* within existing or newly developed client-side apps based on their company's recommendations and requirements.

2) Project Purpose -

The basic purpose is to enhance an existing additional feature in a food delivery XYZ app so that customers can order a specific meal or food item right now and schedule delivery for a subsequent time.

3) Objectives of the Project-

a) Create an existing feature in the application as required by the client

b) User-friendly UI and UX regarding the feature where customers can easily access and customize the time-slot as per their needs.

c) Periodic updating with immediate effect on bugs, glitches, etc. linked towards the implementation of this new feature.

d) Timely notification of the specific order and it's time to the customer, the restaurant, and the delivery boy. Customers can personalize their time slot reminder settings as per their specific needs.

e) Enhanced communication channels between both the customer and the delivery boy, as well as a 24hr helpline service.

4) Assumptions and Constraints -

The assumptions mentioned below are the future undefined situations that may emerge after the successful implementation of the project. Following assumptions are -

a) Inconsistencies in time arrangements between restaurants and customers.

b) Availability in Hardware/Software platform.

c) Government and Legal Policy constraints.

d) Frequent Technology Development.

e) Strategic Decisions.

5) Interfaces to External Systems -

- Owner of the application.
- Other external members.

6) Points of Contact -

- Mr.X - Project Manager
- Mr.Y - Development Project Head
- Mr.Z - User Contacts
- Other Stakeholders
- Company Employee whose signature incorporates acceptance of the FRD.

7) Document References -

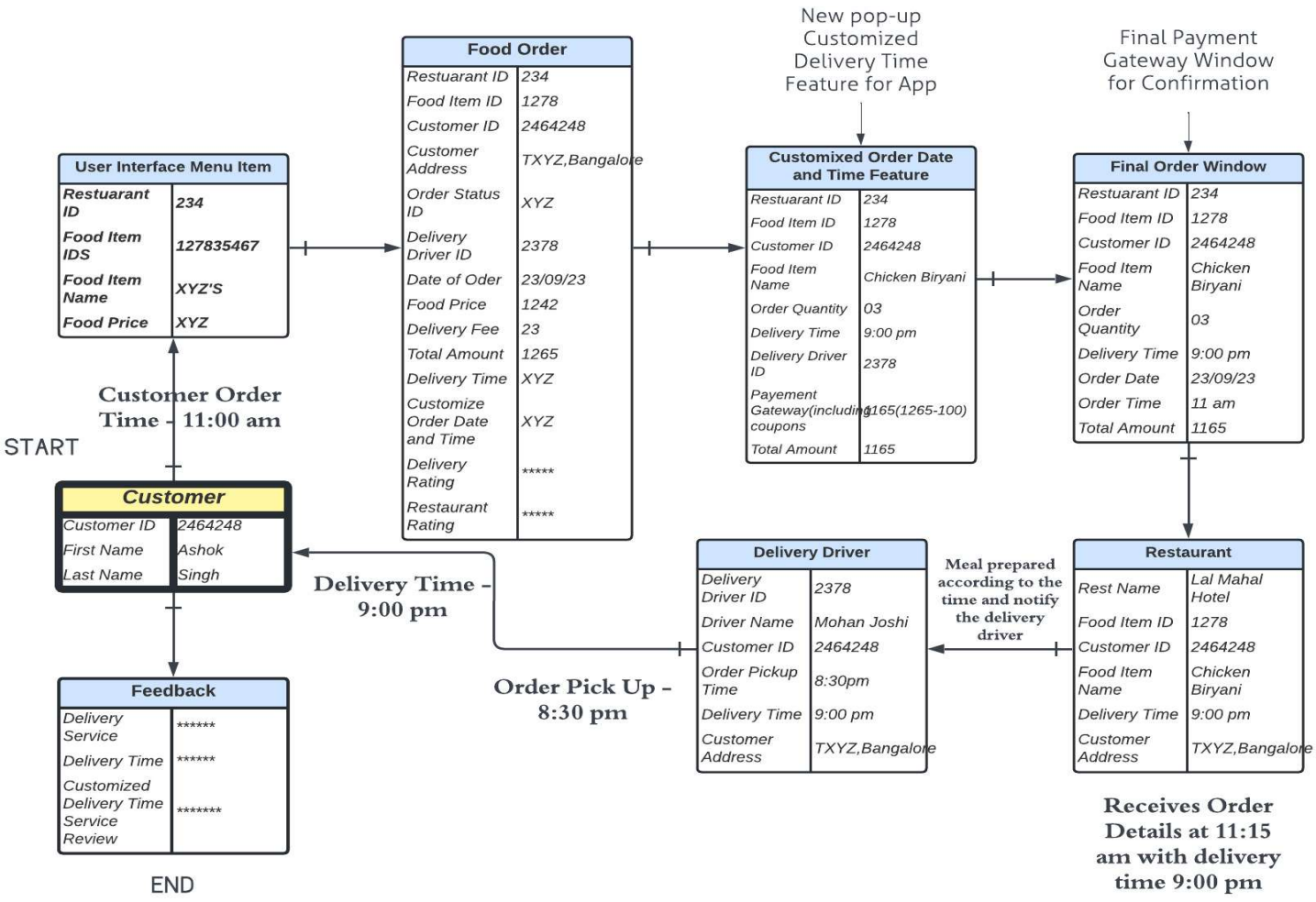
The reference documents used for creating this FRD are as follows -

1. Meeting notes and summaries.
2. SDLC deliverables.
3. White paper analysis.
4. Requirement gathering notes.

8) Functional Requirements -

- Functional Process Requirements –

LOGICAL DATA MODEL –



Detailed description and information related to Functional Process Requirements -

i. **Customer** - The user opens the food delivery app, a popup UI with the following attributes appears with details of the customer-

- Customer ID
- First Name
- Last Name
- Trending Dishes and Other Offers.

ii. **UI Menu Item** - The customer then proceeds to the Search bar to explore the Menu Item or Restaurant with the purpose of ordering a particular food item, where a UI popup shows up with all detailed attributes mentioned below -

- Restaurant ID
- Food Item ID’S and its Images
- Food Item Price

iii. **Food Order** - The customer then proceeds with the order he was seeking for and proceeds to the next order window pop - up window. The following attributes in Food Order are -

- Restaurant ID
- Customer ID
- Customer Address
- Order Status ID
- Delivery Driver ID
- Date of Order
- Food Price
- Delivery Fee
- Total Amount
- Delivery Time
- Customize Order Date and Time
- Restaurant Rating

iv. **Customized Order Date and Time Feature (NEW FEATURE)** - The app's main highlighted popup UI feature is that it opens a new window where the customer can customize the delivery method based on their preferred time and location. An illustration of how it works - At 11 a.m., a customer orders the required item from his office for a specific family event at his residence scheduled for 9.15 p.m. As a result of our feature customization, the user will be able to book the order at 11 a.m. and schedule the delivery time at 9 p.m. at his home. The following attributes in this window are -

- Restaurant ID
- Food Item ID
- Customer ID
- Food Item Name

- Order Quantity
- Delivery Time
- Delivery Driver ID
- Payment Gateway(including coupons)
- Total Order Amount.

v. **Final Order Window** - A new UI appears following feature delivery customization, allowing the customer to verify and confirm that all the given details are accurate. Time, place, food item, etc. are in line with the customer's preferences with the Rules and Regulations policy listed below. Then, connect to the payment gateway and enter the required payment amount that was provided to the customer. The following attributes in this window are -

- Restaurant ID
- Food Item ID
- Customer ID
- Food Item Name
- Order Quantity
- Delivery Time
- Order Date
- Order Time
- Total Amount
- Proceed to the payment gateway and perform the transaction via Credit Card, Debit Card, UPI's, etc. No COD for this feature (mentioned by client)

vi. **Restaurant -** After the transaction is complete, the specific order and a special feature message with the future time specified by the customer are delivered to the specific restaurant in their database. Once the meal is prepared, the restaurant will pass a notification to both customer and delivery driver that "*Meal is being prepared" or "Delivery Driver has picked up the order".* The following UI attributes mentioned in this window are-

- Restaurant Name
- Food Item ID
- Customer ID

- Food Item Name and Its Quantity
- Delivery Time
- Customer Address

vii. **Delivery Driver -** When the order is ready, the specific restaurant will send the delivery driver a notification that the "order is prepared," and then the delivery driver will continue and pick up the order at 8:30 pm as scheduled and update the customer with a notification as *"Mohan Joshi, your delivery partner has picked up your order. Your delicious meal is on the way"* along with a route map with live tracking of the delivery driver. Following attributes in this particular UI window are -

- Delivery Driver ID
- Driver Name
- Customer ID
- Delivery Time
- Customer Address
- Driver Live Tracking Option

viii. **Customer -** The delivery driver arrives at the specified location, he will deliver the client's order at the specified time after notifying the customer via a pop-up message that the delivery partner has arrived at the specified place. Before delivering the specific order, the delivery driver will double-check the customer's identification.

ix. **Feedback -** Later, after receiving the delivery of the food item, The customer will provide feedback regarding the order service, level of satisfaction with this new feature, and overall UX. In case, if a customer did not share any feedback regarding this new feature, the company customer care can contact the customer, get his thoughts, and record them.

Non -Functional Operational Requirements -

- **Speed -**

1. After pressing the application button, the program must launch in no more than 5 seconds.
2. The application must not take more than two to three seconds to load distinct UI pop-up windows.

3. Monitor the device's speed according to its settings if the application is open concurrently with other programs, and update the application in accordance with the OS requirements if necessary.
4. Test the program on different devices, noting how quickly it runs, and then make the necessary updates.

- **Security -**

1. The backend system and databases containing sensitive customer data should have adequate firewall security capabilities to prevent unwanted access.
2. Secure login details generation input, such as identification images, capital letters, and symbols, must be recommended to customers so that authorized users can access their information after providing their specific credentials.
3. A security question must be asked to the consumer when opening an account so that if the customer forgets his login information, he can still access the account by responding to the security question.
4. Customers will be granted a minimum of 4 attempts to log in using their credentials. In the event that the user enters incorrect credentials, the application has the ability to lock the user's account and send them a message instructing them to get in touch with "Customer Care" to unlock it. This prevents unneeded security breaches.

- **Portability -**

Applications must be portable and conform to numerous device criteria, regardless of how old or modern the device is on the market. Different testing on various devices can aid in the development and updating of programs in accordance with their OS, such as Android, Apple iOS, Windows, Linux, etc.

- **Capacity -**

After the update of this new features, the application's total storage space must be set at 20–60 megabytes (for mobile devices) and under 200 megabytes (for desktop). Setting a capacity must take into account the user's device and its specs because each device has a unique memory storage setup.

- **Reliability -**

Applications need to be tested and reviewed numerous times to determine their dependability on how long they can run and be configured in accordance with the requirements of the device..

Failure rates, the time between significant failures, and other metrics must be recorded and frequently reviewed to determine the application's core dependability prior to deployment.

- **Localization -**

In order to aid users in understanding and navigating any environment, applications must be compatible with regional localization features. There are several traits. -

1. Language – English, Hindi, Marathi, Kannada, Bengali, Tamil, Malayalam, etc
2. Urban or Rural
3. Time-zones - IST, EST, APAC, etc.
4. Currency - INR,$, Euro, etc.
5. Temperature or Climate such as rain, windstorm, etc.

- **System Availability-**

As required by the company rules, applications must be accessible around-the-clock. Any application update or fault must be communicated to the users with a reminder that the application will be unavailable for the specified period of time owing to system changes on internal servers.

10) Requirements Traceability Matrix -

Applications must follow the Requirements Traceability Matrix, which keeps track of the functional requirements and how they are implemented throughout the development cycle. To offer output in real-world circumstances, a number of software testing's must be carried out and verified for the newly introduced function.

Following reference documents requirements used for TRM are -

1. BRD/FRD
2. Description of Requirement
3. Reference documents like User Stories, etc.

Project Description -

To implement a brand-new delivery schedule feature (the possibility to order for a later stage currently itself) inside of an already-existing or recently-created delivery app.

Testing Scenario -

Testing the new feature -***"Order Now and Deliver Later"*** in the delivery app.

TS ONDL	Check the new feature "Order Now and Deliver Later" in the delivery app.

Test Cases -

TC ONDL - 1	Open App and Enter Credentials
TC ONDL - 2	Explore Menu and Food Items
TC ONDL - 3	Select Food item and proceed to order
TC ONDL - 4	Enter Order Window and select customize delivery time
TC ONDL - 5	Select the preferred delivery time
TC ONDL - 6	Checkout to payment gateway

REQUIREMENT TRACEABILITY MATRIX -

Reference Doc	Testing Scenario	Testing Case	Details	Status
FRD - ONDL	TS ONDL	TC ONDL - 1	Open App and Enter Credentials	Passed
		TC ONDL - 2	Explore Menu and Food Items	Passed

		TC ONDL - 3	Select Food item and proceed to order	Passed
		TC ONDL - 4	Enter Order Window and select customize delivery time	Passed
		TC ONDL - 5	Select the preferred delivery time	Passed
		TC ONDL - 6	Checkout to payment gateway	Passed

11) Glossary-

The abbreviations used in this FRD documents for better understanding are as follows -

- **User interface (UI)**: Refers to the part of the app that the user interacts with.
- **User experience (UX)**: Refers to the overall experience of a user with the app.
- **API**: Stands for application programming interface, which is a set of protocols and tools for building software applications.
- **Payment gateway**: Refers to the system that processes online payments.
- **Delivery tracking**: Refers to the ability to track the delivery of food from the restaurant to the customer.
- **Customer service**: Refers to the support provided to customers to address their questions, concerns, and issues with the app.
- **Push notifications:** Refers to notifications that are sent to the user's device to provide updates and reminders.
- **Backend system:** Refers to the part of the app that is not visible to the user and is responsible for storing and processing data.

THE END