



Course: Software Engineering

Section: B

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Complete Requirement Analysis Document:

Requirements analysis or requirements engineering is a process used to determine the needs and expectations of a new product. It involves frequent communication with the **stakeholders** and end users of the product to define expectations, resolve conflicts, and document all the key requirements.

Requirements Analysis Process:

System (Document) Convention:

DB	Create Database.
ER	Entity Relationship
Front-End	Create front end (i.e menus, Billing system etc).
Back-End	Connection with database & Data fetching & Retrieving.

Purpose:

The purpose of this document is to build an online system to manage restaurant and their customer and helping their Kitchen staff. The “Fast Food Restaurant” app allows users to:

- Scan QR code.
- Get their order online sitting at home.
- Pay online.
- Order Delivered at your home.

Product Features:

- **For Customers:**

- Scan QR Code to get list of food brands
- Browse through different menus and deals along rates.
- Draw different types of analysis with the help of graphs
 1. **Customize the list according to the following criteria:**
 - All Food categories.
 - Budgets.
 - Deals/ Discounts.
 - Discount on Cards.
 - Ratings.
 2. Online Payment via credit card.
 3. Report a Problem.

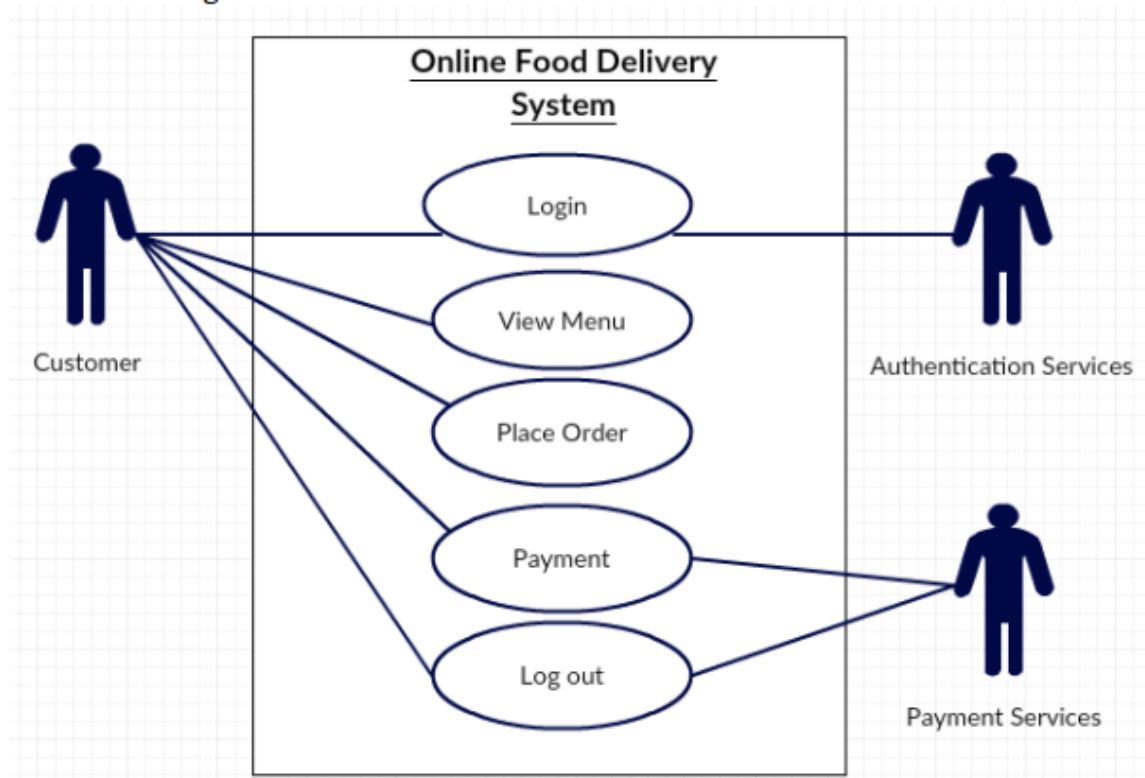
- **For Food Brands:**

- Food brands will subscribe to create their profile
- Take Order
- Payment Receipt

- **For Admin:**

- Removing customers, adding/removing/updating items,
- Bill will have the customer' s name, phone, and address
- Add new feature.
- Manage accounts.
- Track monthly report.

User-case Diagram



Project Scope:

The purpose of **Fast Food Restaurant** is day-to-day business work including adding customers and sales. Removing customers, adding/removing/updating items. Bill in PDF format and allow it to be printed at two printers simultaneously. The goal for developing this app is to create convenience for customers and save their time by utilizing the “pre-order” option.

Considering our target audience, budget is an important factor for middle class, students and workers while looking up for food options.

• Phases:

The project will be divided into three phases:

- ✓ **Phase 1-Initial Phase:** details of customers, their sales, and possible bonuses.
- ✓ **Phase 2:** Bill in PDF format and allow it to be printed at two printers simultaneously.

✓ **Phase 3:** Add features in Bill.

the business risks, opportunities and success measures have been mentioned in the Vision and Scope document provided.

Product Perspective:

The “Fast Food Restaurant” is an entirely new application. Few similar apps do exist abroad but fulfilling a different purpose. Food Panda is a similar app, but it is only for delivery with no dine inn option.

Stack Holders:

Following are the stackholders of this Fastfood restaurant:

- Restaurant Owner.
- Manager.
- Consumer.
- Employers.
- Suppliers.

Note:

Everyone who is interacting to system are the **Stack Holders**.

Functional Requirements:

Following are the functional requirements of this Fastfood restaurant:

✓ Invalid login:

- You enter wrong password or username.
- System gives you 3 or more opportunities to recover your password or username.

✓ Can' t Place Order:

- Restaurant is closed due to some reason.
- Customer cancel the order.
- System issues etc.

✓ Food/Deal not available:

- You got the message food is not available at this time.
- Limitation of food. So, you can' t order.
- System terminates order.

- Order not available.
- ✓ **Rider not available:**
 - Order is delay due to insufficient riders.
 - Delivery not possible at this time.
 - No riders available. SORRY!!!
 - Details of Customer:
 - System generated error.
 - Wrong card inserted.
 - Order terminated.
- ✓ **Complain System:**
 - In order, Food is not delivered at time you complain for it.
 - Food is not fresh. You complain for it.
 - Damage of food during delivery process. You complain for it.
 - Food misplaced. You complain for it.
- ✓ **FeedBack System:**
 - Fill the form for food review.
 - Enter your name, phone number etc.

Non- Functional Requirements:

Following are the non-functional requirements of this Fastfood restaurant:

- ✓ **Performance Requirements:**
 - The app should provide greater performance with no delay.
 - Design limited tables in database so that our software execution or queries will be held fast and performance is better and more fast.
 - Too many tables in database can result in slower execution of queries, hence effecting the entire system
80-90% of the queries shall be completed in approximately 4 to 5 seconds

- There should be no more than 2 to 3 seconds of delay in communication between customers and food brands.

✓ Safety Requirements:

- RPO (Recovery Point Objective) and RTO (Recovery Time Objective) should be clearly defined to avoid loss of data that could affect the business.
- The system cannot afford loss of data of its customers because it provides analysis on basis of it.

✓ Security Requirements:

- Every user must change his initial password after first successful login.
- If any user uses his credit card for payment, OTP is sent via text or call for confirmation.
- The user shall receive a text message by bank on successful transaction.

Note:

Diagrams that Give you a visual representation of tasks along with their scheduled data and time or helps you understand and for better progress.

