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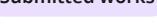
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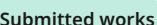
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1. Introduction

This document describes a project focused on the design, and development of an online restaurant management system for Gokyo Bistro, an established restaurant located in Jhamsikhel, Lalitpur. Because of its growing popularity, the restaurant has recently experienced a remarkable increase in the number of customers. In most of the daily operations it can be handled manually, it can help in managing tasks such as table arrangements, customer orders, and home delivery services have become increasingly challenging.

2. Group Task

2.1 Business Case

Gokyo Bistro's increasing customer base has created several operational challenges that cannot be managed successfully using the existing manual system. In the time of busy hours, the restaurant often reaches maximum occupancy, forcing customers to leave without being served. This results in customers being dissatisfied and missing opportunities for earning. Besides, handling dine- in and home delivery orders at the same time can increase the chance of order delays and mistakes.

The absence of a centralized digital system makes it difficult for the staff to track the table availability, manage order efficiency, and coordinate delivery services. This can create unnecessary workload for the employees and affects overall services quality. As customers' expectations continue to increase, depending on manual process may create negative impact on the restaurant's reputation and future growth.

Executing an online restaurant management system will help Gokyo Bistro efficient its operations, improving coordination among with staff, reducing errors, and better deliver customer service. This system will support the restaurant's long-term growth.

2.1.1 Introduction to Business

The hospitality industry is rapidly adopting digital systems to enhance service quality and improve operational efficiency. Restaurants often face challenges in managing customer

flow, maintaining order accuracy, and providing timely service, especially during peak busy hours. Manual systems often result in delays, errors, and customer dissatisfaction.

Gokyo Bistro, located in Jhamsikhel, Lalitpur, is a popular restaurant known for its pleasant ambience and availability of both indoor and outdoor dining facilities. Recently, the restaurant has experienced a significant increase in customer visits, along with a growing demand for home delivery services. Managing these operations manually has become increasingly difficult, leading to overcrowding, inefficient table management, and problems in order handling. These problems have affected all the customers, so for this to overcome these challenges, Gokyo Bistro requires a reliable and efficient online system.

This project focuses mainly on identifying and analyzing the current problems faced by Gokyo Bistro in its daily operations. Based on this analysis, an online restaurant management system will be designed using Structured Analysis and Design techniques. The main purpose of this system is to make restaurant operations more organized and efficient by improving table management, order processing, and delivery services. Overall, the project aims to enhance the restaurant's performance and provide better service, leading to higher customer satisfaction.

2.1.2 Project Introduction

The project is proposed in response to the optional challenges faced by Gokyo Bistro as customer demand continues to rise. Currently, the restaurant relies on manual methods to handle table arrangements, take customer orders, and manage home deliveries. These processes have become difficult, especially during busy times, resulting in crowded spaces, service delays, and mistakes with orders.

To address these challenges, the project aims to create an online restaurant management system that will organize and automate key restaurants operations. Structured analysis and design techniques will be used to study the existing problems and identify exactly what the restaurant needs. The new system will enable us to manage table availability, take orders more efficiently, and enhance communication among staff.

By making this system, Gokyo Bistro will improve overall efficiency, reduce dependence on manual work, and improve service quality. Overall, this project aims to help with better decision-making, increase customer satisfaction, and support the restaurant's growth and competitiveness in the hospitality sector.

2.1.3 Aims

The aim of this project is to design and develop a well-organized online restaurant management system for Gokyo Bistro which can handle daily operations in a more efficient and structured way. The aim is to reduce the difficulties caused by manual processes and support the restaurant in managing increased customer demand. By better table management, delivery services, and order processing, the project enhances overall efficiency and customer satisfaction.

2.1.4 Objectives

The objectives of this project are:

➢ To learn and study the existing manual system used at Gokyo Bistro and identify operational problems.
➢ To design an online system for table management and reduce overcrowding during busy time.
➢ To enhance overall customer experience and service quality by providing faster service and best order management.
➢ To understand the challenges related to table arrangements, order processing, delivery services.
➢ To improve the carefulness and speed of order processing for dine – in and home delivery
➢ To create a structured and user-friendly using structured Analysis.
➢ To support the restaurant's long-term growth by improving service quality and operational efficiency.
➢ To reduce customer waiting time and overcrowding problems.

2.1.5 Problem Statement

Gokyo Bistro is currently facing difficulties in managing its daily restaurant operations because of highly increased customer demand and dependency on manual processes. The restaurants struggle to manage table arrangement efficiently, especially during busy hours, which can make overcrowded and long waiting times. Many customers leave without being served when the restaurant reaches maximum occupancy. The active system is inefficient in handling table arrangements, order delays, mistakes, and loss of customers. Without a proper online system, this issue negatively affects service quality, customer satisfaction and overall business growth.

2.1.6 Project as a Solution

The aim of the online restaurant management system is to provide an effective solution to every problem faced by Gokyo Bistro. It will help automate and organize important restaurant operations such as Structure Analysis and Design techniques; the system will be carefully planned to meet the specific needs of the restaurant.

The system will provide real-time information on table availability, allowing staff to manage seats more efficiently and reduce overcrowding. Orders can be recorded and digitally tracked, which will reduce errors and improve service. It can manage delivery requests in organized manner, improving coordination between kitchen chiefs, staff and delivery personnel. Overall, the system will reduce dependency on manual work, improve accuracy, and support operations restaurant.

2.1.7 Profit for the Business

To execute the online management system, it will bring many benefits to Gokyo Bistro. Efficient table management will allow the restaurant to serve more customers and reduce customer loss caused by overcrowding. It improves more accurate and faster order processing and satisfaction with customers, encouraging repeat visit, and positive review. It will help in handling home delivery services and improve restaurant to expand its customer in dine – in services.

The system will also reduce manual errors and operational costs by minimizing mistakes and saving staff times. Employees will be able to work more efficiently with less misunderstanding, confusion and pressure during busy days. Overall, the project will help

to increase revenue, improve service quality, and maintain restaurant reputation and support long – term business growth.

2.2 Software Requirement Specifications (SRS)
2.2.1 Introduction

Software Requirement Specifications (SRS) is a detailed document outlining what a software system should do, how it should perform, and how the users will interact with it. This SRS works just like a blueprint for developers and as an information or communication to the stakeholders, and a baseline for the purpose of testing, covering both functional and non-functional possibilities to coordinate with everyone and to detect the risk as well to minimize any project failure.

The SRS provides a detailed breakdown of the system specifications in which the requirements need to be met to ensure the success of the implementation of the Gokyo Bistro Online Restaurant Management System. This system requirement can be classified into both the functional and non-functional system depending on the type of the system.

2.2.2 Purpose of SRS

➢ Clarity: SRS helps to make understanding the system clear and assumed by all the stakeholders involved in the project.
➢ Reference Document: It acts as the guideline throughout the development and testing of the system.
➢ Scope Management: It helps to prevent the problem of scope creep by defining what is to be incorporated into the system and what is not.

2.2.3 Intended Audience of SRS

➢ Project Stakeholders: To confirm the system requirements and to ensure the business objectives are obtained.
➢ Development Team: This team will be responsible for implementing the specified requirements.
➢ Quality Assurance Team: For testing the system and thereby validating it within the required parameters.

➢ Project Managers: For planning, controlling and directing the scope of the projects.

➢ End Users: The provision of usability and the provision of the required expected system functionality.

➢ Support Teams: intended for use in the future for support and troubleshooting of the system.

2.2.4 Definitions

➢ Online Restaurant Management System: An online platform that assists a restaurant in managing their activities, which includes table booking, menu services, home delivery services, billing and customer feedback in a more organized and automated manner.

➢ Module: In software system Module is known as the unique functional unit.

➢ Advance payment: when the reservation is made a little sum of money is charged for confirmation.

➢ Data Flow Diagram (DFD): It represents the data flow in the system.

2.2.5 Acronyms

- SRS: Software Requirements specifications

- DFD: Data Flow Diagram

- ERD: Entity Relationship Diagram

- UI: User Interface

- QA: Quality Assurance

2.2.6 Abbreviations

- Pspecs: Process Specifications

- Mspecs: Module Specifications

- Ctx DFD: Context Data Flow Diagram

System Features:

The functionality or the capacity that a software system provides to the system is known as system features. In this Gokyo Bistro system the main system features are divided into two types:

- Functional and Non-Functional

2.2.7 Functional Requirements

Feature 1: Login and Registration

Description: The system should allow the visitors to register as a member. As well the system should classify users into three types (Admin, Member and Visitor).

Priority: High

Functional Requirements:

FR.Req.1: The system should be able to allow Admin and the Members to log in to the page using the username and password.

FR.Req.2: The system should allow the new users or the members to register by providing personal details.

FR.Req.3: The system should be able to store encrypted passwords for all user accounts.

FR.Req.4: The system should display the appropriate error message when invalid login appears.

Feature 2: Book Table

Description: visitors or the members can view the table or book a table for a selected date and time by paying 1200 as advance payment.

Priority: High

Functional Requirements:

FR.Req.1: The system should grant all the visitors, and the members view all the available tables according to date and time.

FR.Req.2: The system must require a mandatory advance payment of Rs.1200 to confirm the booking.

FR.Req.3: The system must generate the booking confirmation after the advance payment is made.

FR.Req.4: The system should mark all the booked table, so visitors won't get any problem while booking.

Feature 3: Cancel Reservation

Description: Users can cancel their reservation after made if the cancellation is made on the same day, then Restaurant will deduct 500 from advance Payment.

Priority: Medium

Functional Requirements:

FR.Req.1: The system should allow the user to cancel the Reservation.

FR.Req.2: The system should decide whether the cancellation is made on the same day or earlier.

FR.Req.3: The system should deduct 500 if the users cancel the reservation on the same day.

FR.Req.4: The system should return all the amount if cancellation is made earlier.

Feature 4: Set Beverage Choices

Description: Members and the visitors can select their beverage choices while booking and can also reserve preferred wine/whiskey from premium list.

Priority: Low

Functional Requirements:

FR.Req.1: The system must show all the available beverages.

FR.Req.2: The system should allow the user to choose preferred beverages.

FR.Req.3: The system should allow members to choose Wine or Whiskey as their choices.

FR.Req.4: The system should allow all the users to modify the choice of beverages they made before arrival.

Feature 5: Place Order for Home Delivery

Description: Members can easily place their home delivery orders and even can make the online payments too.

Priority: Medium

Functional Requirements:

FR.Req.1: The system should also be able to allow the members to browse all the available menu items.

FR.Req.2: The system should calculate all the total bill.

FR.Req.3: The system should record all the contact details and the delivery details.

FR.Req.4: The system should generate order confirmation after the payment is made successfully.

Feature 6: Generate Financial Report

Description: Admin is the one who will generate all the financial reports.

Priority: High

Functional Requirements:

FR.Req.1: The system should allow the admins to generate revenue reports as per their choices like daily, monthly and yearly

FR.Req.2: The system should be able to provide predictive revenue analysis using historical data.

FR.Req.3: As well it should recommend popular items on the menu to be highlighted in future operations.

FR.Req.4: The system should predict revenue for upcoming years.

Feature 7: Bill Generation

Description: Admins are the ones who are responsible for generating the bills.

Priority: High

Functional Requirements:

FR.Req.1: The system should enable Admis to create bills for orders/Reservations.

FR.Req.2: The system should be able to print restaurant and home delivery receipts.

FR.Req.3: The system should include service charges, VAT or any Discount that may apply

FR.Req.4: The system should update all the financial records.

Feature 8: Menu Management

Description: Admin is the one who will update, delete and add in the Menu.

Priority: High

Functional Requirements:

FR.Req.1: The system should allow Admin to add new menu items.

FR.Req.2: The system should be able to create invoices based on either reservations or orders

FR.Req.3: The system should produce receipts for both inside and home deliveries.

FR.Req.4: The system should allow admin to delete the menu items.

Feature 9: Rate Experience

Description: All the Member and the visitors can rate the experience

Priority: Medium

Functional Requirements:

FR.Req.1: The system should enable visitors/Members to evaluate food quality, employee behavior and ambience.

FR.Req.2: The system will enable users to provide written feedback.

FR.Req.3: The system should keep submitted feedback in the database for admins review.

FR.Req.4: The system should store Ratings too.

Feature 10: Post Offers and Schemes

Description: Admin is responsible for posting Offers, Discounts and other.

Priority: Low

Functional Requirements:

FR.Req.1: The system should indicate the validity period for every offer.

FR.Req.2: The admin can make posts on special offers and schemes, and the system will show all user offers on their homepage

FR.Req.3: The system should allow Admin to update or remove all the existing offers.

FR.Req.4: The system should deactivate all the expired offers automatically.

2.2.8 Non-Functional Requirements

NFR1	Performance	Pages should be loaded within 3 seconds, and the system should allow for up to 200 users concurrently using it as well as the database query's part should response within 2 seconds.
NFR2	Security	The system should employ secure payment gateways for online transactions. user passwords must be encrypted. Only the administrator can access reports as well as modify essential area.
NFR3	Reliability	The system should be 99.5% online at anytime the system could log error and automatically notify

		the admin. and should visit backup data daily.
NFR4	Availability	The system should be available 24/7 except during scheduled maintenance.
NFR5	Usability	The system should be user friendly, and the system should be able to be accessed through mobile devices.
NFR6	Scalability	The system is required to scale up for handling targeting more branches of Gokyo Bistro in future as well as more customer flow and the order.

Assumptions made to use the software:

- Internet should be 24/7 stable to operate the system in a well-managed way.
- The system should include minimum hardware and browser requirements.

2.2.9 Design and Implementation Constraints

➢ Khalti and eSewa are the limited integration of the online payment.

➢ Secure authentication through email or contact number.

➢ System should response below 2 seconds.

➢ System should be able to available 24/7.

➢ Repeated failed login leads to the account system locked.

2.2.10 External Interfaces Required:

These are the interaction points where a software system interacts with other entities as

well as these interfaces determine the actual software performance and function in its

operational setting. Here are some examples of the external interfaces related to non-functional requirements.

User Interfaces: The system should have very user-friendly UI design which should work on both devices like desktops and mobile devices. Admin should watch all the essential features like managing purchases, sales, and reports and the customers only can have access to view the products that are listed and place the orders and make payments.

Hardware Interfaces: The system should work with warehouse devices like:

Servers:

Processor: Quad-core, 3.0GHz or higher

Memory: Minimum 16GB RAM

Storage: 1TB SSD

Network: Gigabit Ethernet

Client Devices:

Admin PCs: Dual core, 8GB RAM, 256GB SSD

Mobile Devices: Quad-core, 4GB RAM, 5.5-inch screen

Peripheral Devices:

Barcode Scanners: USB/Bluetooth, 1D & 2D support

Printers: Thermal label printers

Networking Devices:

Wireless Routers: Dual band, 802.11ac or higher

Ethernet Switches: Gigabit

Software Interfaces:

Operating system: Windows, macOS, Android, iOS

Payment gateway APIs

Browsers: Chrome, Edge

Email/SMS notifications service

Communication Interfaces: The system must send notification through email
or SMS for updates about purchase, payments or other activities.

2.2.11 Other Non-Functional Requirements

➤ Maintainability: The system needs to be designed in a modular form to enable easy
  upgrades.

➤ Portability: This system should work on different browsers and devices.

➤ Data Integrity: All the essential data of the booking, cancellation, and payment should
  be accurate and very consistent.

2.3 Data Flow Diagram (DFD)

A graphical diagram that is used to show how data moves around the system is known
as data flow diagram (DFD). It shows input, output, process of the data transformation
and storage of the data. It helps to visualize how data travels from one component to
another. It provides a high-level overview of the functions in the system and it is widely
used because it is easy to understand and simple to design. It focuses on what the system
does, not how it works so, the technical details are not included here.There are two types
of Data Flow Diagram. They are:

• Logical DFD

Logical DFD mostly focuses on how data flows in the system. It shows the high-level
process and data flow without going deep into technical details.

• Physical DFD

Physical DFD shows how data moves around the system and its implementation. Input,
Output, Data Storage, Data Processing is included. It includes Hardware, Software,
Database, File Structure and technology that stores the data and its movement.

2.4 Context Level Diagram/Level 0 DFD

Context Level DFD is the highest level of DFD. It shows a complete overview of the entire system.
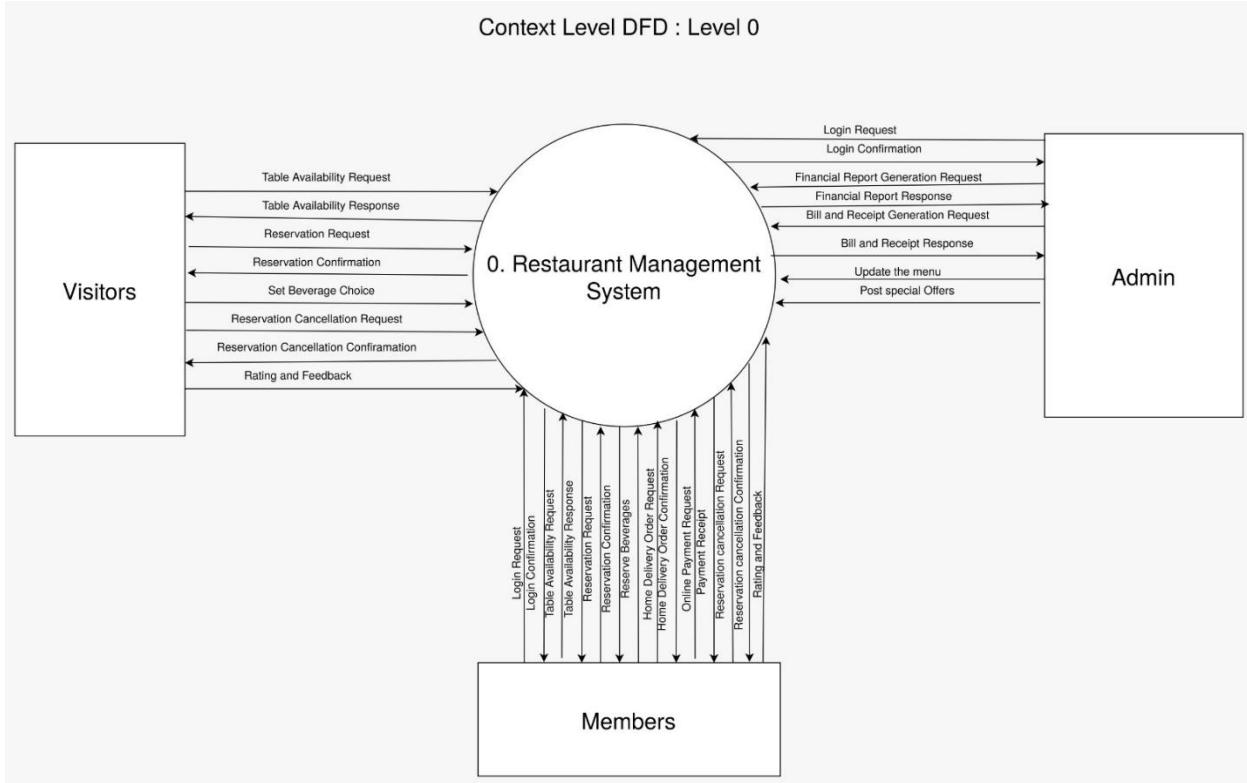
Figure 1 DFD Level 0

2.5 DFD Level 1

Level 1 DFD is the second highest level of the DFD. It breaks down the major process mentioned in level 0 DFD.
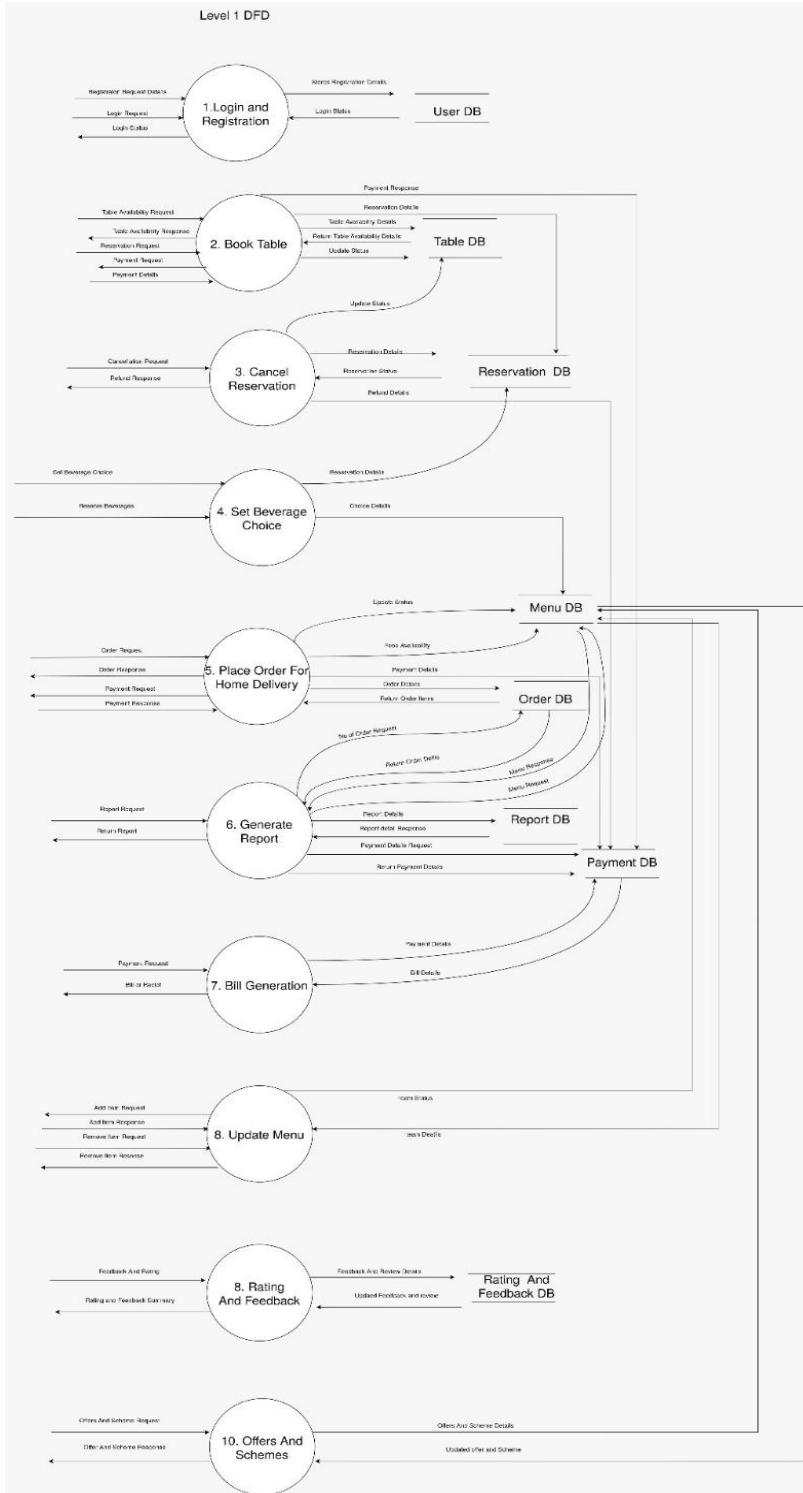
Figure 2 DFD Level 1

2.6 DFD Level 2

Level 3 DFD further breaks down the process.
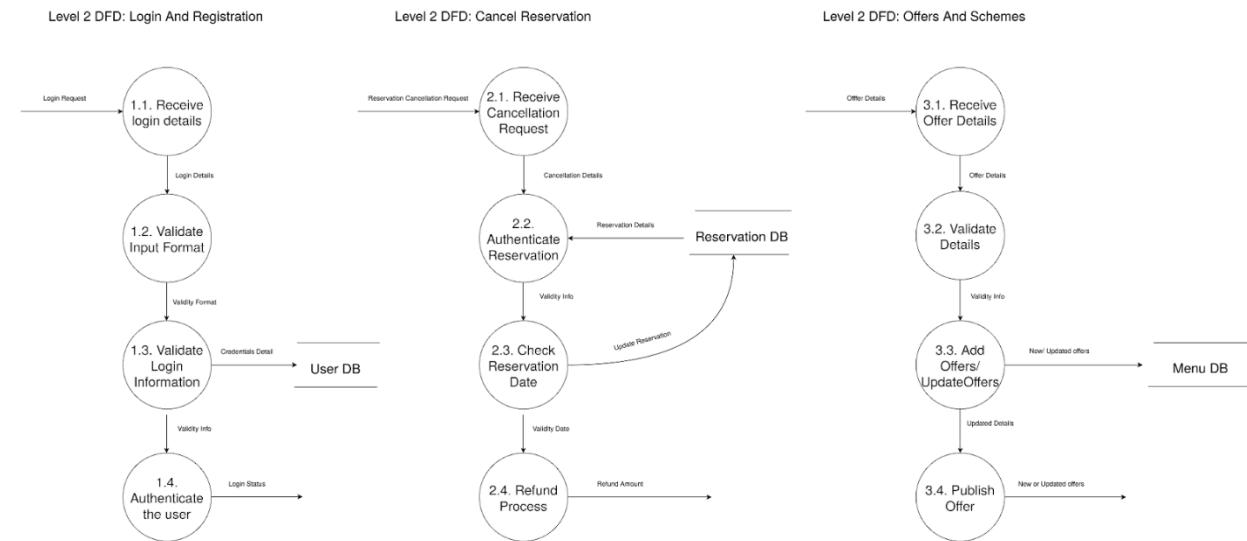
Figure 3 DFD Level 2

2.7 ERD

An entity relationship diagram (ERD) is a high-level conceptual data model in which data are stored in the form of real-world objects and relationship between them is shown. It gives the proper overview of the system before development which will be very beneficial for both developers and stake-holders. (Geeks, 2025)

In ERD the entities are represented by the rectangle, attributes are represented by the oval and the relationship is shown using the diamond shape. The two entities are joined through the relationship using the crow-foot notation.
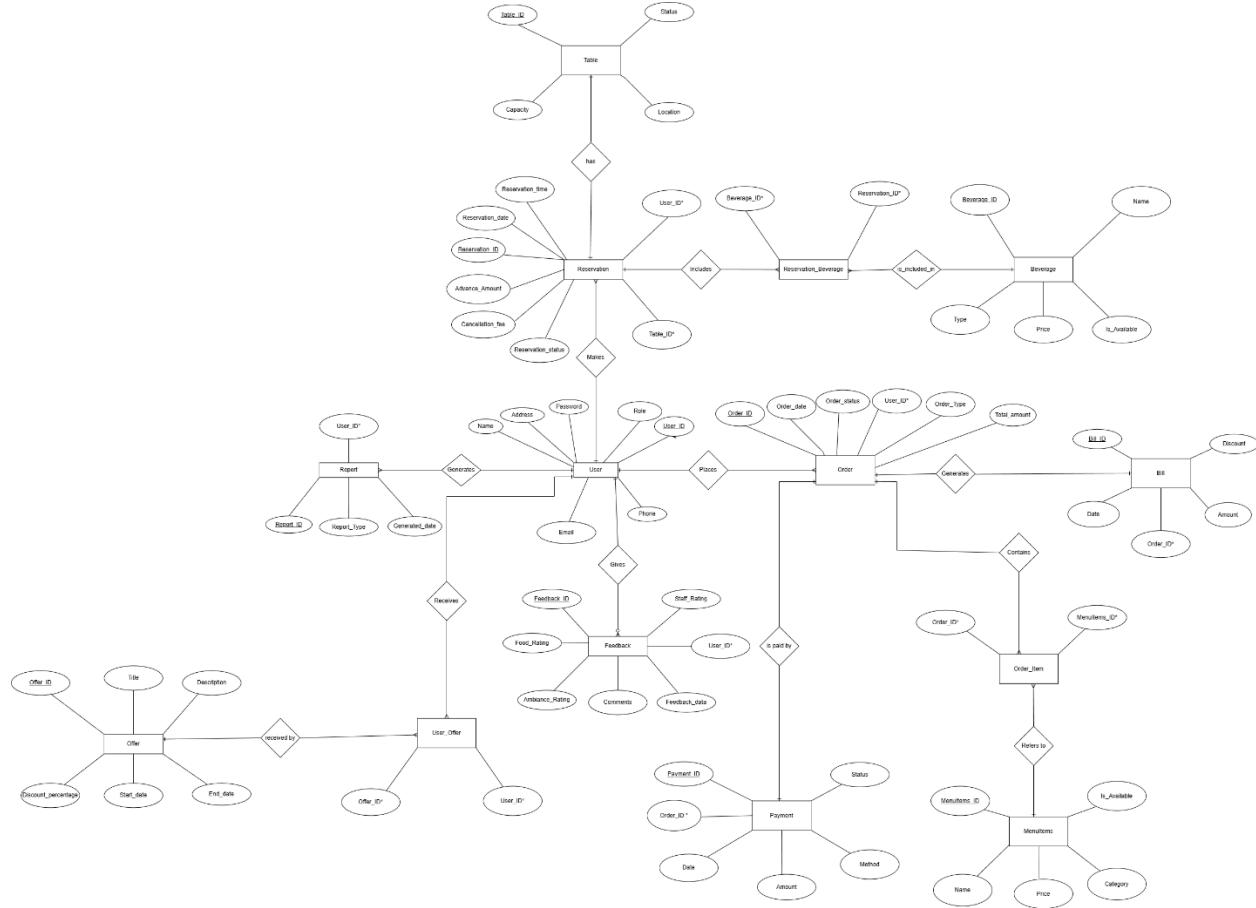
Figure 4 ERD

2.8 Data Dictionary

A data dictionary is a document or a specific content that includes every detail of the dataset included in the database which helps the users to understand it more clearly. A data dictionary generally includes name of the data element, data type, primary key or foreign key information, whether a particular column is optional or not, it also shows a default value if that exists in the system. Generally, the DBA (Database Administrator) communicates or uses the data dictionary. (edu, n.d.)

It also helps to prevent the data redundancy as well as the data inconsistency.

Restaurant_System = User + Table + Reservation + Beverage + Reservation_Beverage + Order + MenuItems + Order_Item + Bill + Payment + Feedback + Report + Offer + User_Offer

User

- User= {User_Details}* /* data stored in database */
- User_Details = User_ID + Name + Address + Email + Password + Role
- User_ID = Number /* Primary Key */
- Name = String
- Email = String
- Address = String
- Password = String
- Role = ["Admin", "Member"]

Table

- Table= {Table_Details}* /* data stored in database */
- Table_Details = Table_ID + Capacity + Location + Status
- Table_ID = Number /* Primary Key */
- Capacity = Number
- Location = String
- Status = ["Available", "Reserved", "Occupied"]

Reservation

- Reservation= {Reservation_Details}* /* data stored in database */
- Reservation_Details = Reservation_ID + Reservation_Date + Reservation_Time + Advance_Amount + Cancellation_Fee + Reservation_Status + User_ID + Table_ID
- Reservation_ID = Number /* Primary Key */
- User_ID = Number /* Foreign Key Referencing User Table */
- Table_ID = Number /* Foreign Key Referencing Table Table */

- Reservation_Date = Date

- Reservation_Time = Date

- Advance_Amount = Decimal

- Cancellation_Fee = Decimal

- Reservation_Status = ["Confirmed", "Cancelled", "Pending"]

Beverage

- Beverage={Beverage_Details}* /* data stored in database */

- Beverage_Details = Beverage_ID + Name + Type + Price + Is_Available

- Beverage_ID = Number /* Primary Key */

- Name = String

- Type = String

- Price = Decimal

- Is_Available = ["Yes", "No"]

Reservation_Beverage

- Reservation_Beverage= Reservation_ID + Beverage_ID

- Reservation_ID = Number * Foreign Key Referencing Reservation Table */

- Beverage_ID = Number * Foreign Key Referencing Beverage Table */

Order

- Order={Order_Details}* /* data stored in database */

- Order_Details = Order_ID + Order_Date + Order_Status + Order_Type + Total_Amount + User_ID

- Order_ID = Number /* Primary Key */

- User_ID= Number /* Foreign Key Referencing User Table */

- Order_Date = Date

- Order_Status = ["Pending", "Completed", "Cancelled"]

- Order_Type = ["Dine-in", "Home Delivery"]

- Total_Amount = Decimal

MenuItems

- MenuItems={MenuItems_Details}* /* data stored in database */
- MenuItems_Details = MenuItems_ID + Name + Category + Price + Is_Available
- MenuItems_ID = Number /* Primary Key */
- Name = String
- Category = String
- Price = Decimal
- Is_Available = ["Yes", "No"]

Order_Item

- Order_Item= Order_ID + MenuItems_ID
- Order_ID = Number /* Foreign Key Referencing Order Table */
- MenuItems_ID = Number /* Foreign Key Referencing MenuItems Table */

 Bill

- Bill={Bill_Details}* /* data stored in database */
- Bill_Details = Bill_ID + Date + Amount + (Discount) + Order_ID
- Bill_ID = Number /* Primary Key */
- Order_ID = Number /* Foreign Key Referencing Order Table */
- Date = Date
- Amount = Decimal
- Discount = Decimal

Payment

- Payment={Payment_Details}* /* data stored in database */
- Payment_Details = Payment_ID + Date + Amount + Method + Status + Order_ID
- Payment_ID = Number /* Primary Key */

- Order_ID = Number /* Foreign Key Referencing Order Table */

- Date = Date

- Amount = Decimal

- Method = ["Cash", "Card", "Online"]

- Status = ["Paid", "Unpaid"]

Feedback

- Feedback={Feedback_Details}* /* data stored in database */

- Feedback_Details = Feedback_ID + Food_Rating + Staff_Rating + Ambiance_Rating + (Comments) + Feedback_Date + User_ID

- Feedback_ID = Number /* Primary Key */

- Food_Rating = Number

- Staff_Rating = Number

- Ambiance_Rating = Number

- Comments = String

- Feedback_Date = Date

- User_ID = Number /* Foreign Key Referencing User Table */

Report

- Report={Report_Details}* /* data stored in database */

- Report_Details = Report_ID + Report_Type + Generated_Date + User_ID

- Report_ID = Number /* Primary Key */

- Report_Type = String

- Generated_Date = Date

- User_ID = Number /* Foreign Key Referencing User Table */

Offer

- Offer={Offer_Details}* /* data stored in database */

- Offer_Details = Offer_ID + Title + Description + Discount_Percentage + Start_Date + End_Date

- Offer_ID = Number /* Primary Key */

- Title = String

- Description = String

- Discount_Percentage = Decimal

- Start_Date = Date

- End_Date = Date

User_Offer

- User_Offer= User_ID + Offer_ID

- User_ID = Number /* Foreign Key Referencing User Table */

- Offer_ID = Number /* Foreign Key Referencing Offer Table */

2.9 Process Specification (Specs)

A process specification is a detailed description about how a certain function or business rules works in the system. It gives a wide knowledge about the complete process of converting input to output. It is often created as per the Data Flow Diagram (DFD). (Geeks, 2025)

The several processes included in the system of Gokyo Bistro are as follows:

Login and Registration

Process ID:1

Process Name: Login and Registration.

Description: This process controls the login and registration for the system. It allows multiple users (admin, members) to register to the system and login using the proper login details. The system checks the details for every user's before giving any access. Visitors doesn't need to login or register to the system, they can by-pass it.

Process Input:

- Registration details: Username, Email, Password, Address
- Login credentials: Email, Password.

Process Output:

- Registration success or failure message.
- Successful login message.
- User dashboard based on role.
- Invalid login credentials error.

 Process Logic:

- User submits the registration form with several required fields such as username, email, password and address.
- The system validates the entered details.
- If the entered registration details are valid then it stores the user's details in database.
- If the registration details are incorrect then a certain registration error is thrown.
- User provides their login credentials (Email and Password) through the login form to login into the system.
- The system validates the login credentials.
- If login credentials are valid then the system redirects them to their respective dashboards
- If login credentials are invalid then invalid login credentials error is thrown.
- Visitors bypass the login and registration process.

Table Reservation

Process ID:2

Process Name: Table Reservation.

Description: This process controls the flow of booking or reservation of tables by users. It allows the visitors and members to reserve a table for a certain date and time. The user enters the date and table number for reservation and the system verifies if the table is

available or not. Members can easily reserve the table using their login credentials but visitors don't have any kind of credentials so they can book the table by using their name, phone number and email. In-order to confirm the booking or reservation an advance of 1200 is required to pay through cash or online. After the successful payment booking will be confirmed and unique booking id will be generated and also the booking details will be stored in the database.

Process Input:

- Members: Login credentials, Reservation_date, Reservation_time, Advance_Amount, Table_ID.
- Visitors: Name, Phone Number, Email.

Process Output:

- Reservation confirmation or failure message.
- Reserved table details and ID if reservation is confirmed.
- Booking Reference number for visitors.

Process Logic:

- Members enter the table_id, reservation date and time and also pays 1200 as advance payment using specific payment method.
- Visitors enters their name, phone number, email, table_id, reservation date and time and pays 1200 as advance using credit card.
- The system validates the payment made by the users.
- If the payment is un-successful then a payment error message is displayed.
- The system checks availability of the chosen table at that particular time.
- If the table is available then the reservation will be confirmed and the booking details will be saved into the database. A unique reservation ID will also be generated and will be shown to the user along with the details of the reserved table.
- If the specific table is not available for booking then a booking error will be displayed to the user.

Cancel Reservation

Process ID:3

Process Name: Reservation Cancellation.

Description: This process handles the request for cancelling the reservation by the user. It receives the user's cancellation request and deletes the booking details from the database. Also, the advance fee is returned to the user fully or by deducting some amount.

Process input:

- Members: Cancellation request with some other details such as their login credentials and the reservation id.
- Visitors: Cancellation request with other details such as their booking reference number and phone number or email.

Process output:

- Cancellation successful message.
- Refund details.

Process Logic:

- Members submits the cancellation request with details such as their login credentials anf reservation id.
- Visitors submits the cancellation request with details such as their booking reference number and phone number or email.
- The system receives the cancellation request and validates it.
- If the cancellation request is valid and the entered details are correct then the reservation will be successfully cancelled.
- After successful cancellation of request the booked date and the cancelled date will be compared by the system.
- If the cancelled date and the booked date are same then 500 will be deducted from the advance amount and will be returned to the user.

- If the cancelled date is before the booked date, then the full advance payment is returned to the user.

Set Beverage choice

Process ID:4

Process Name: Set Beverage Choice

Description: This process sets the beverage chose by the user during the booking time or even also after booking. This process will set the user's beverage choice and stores in the database system.

Process Input:

- User's beverage choice from the available menu including beverage id and name.

Process output:

- Beverage choice recorded into the database system for the user.

Process Logic:

- The user chooses a beverage from the MenuItems.
- The system verifies whether the chosen beverage is available or not.
- If the beverage is not available then the user will be informed that the beverage is currently out of stock.
- If the beverage is available then it will be confirmed and will be stored in the database for a particular user.

Bill generation

ProcessID:5

Process Name: Bill generation

Description: This process allows the admin to generate a bill for any type of orders. The bill is generated for a specific order. The total amount of all the foods and beverages will be included into the bill and a certain percentage of discount is also applied if available.

Process Input:

- Order details including the MenuItems and their specific prices.
- Offer details if available.

Process Output:

- Bill including the total payable amount and discount amount if available.

Process Logic:

- Admin starts the bill generation process.
- System retrieves the order_ID and order details from the database.
- The system verifies if any kind of offer is available or not.
- The system calculates the total amount of the order.
- If there exists any kind of offers then the discount will be subtracted from the total amount otherwise total amount will be displayed to the user as payable amount.

Rating and feedback

ProcessID:6

Process Name: Rating and feedback

Description: This process allows the users (both visitors and members) to rate the food, ambiance, staff's behaviour and also allows user to add the comment. It will collect the user's rating and store it in the database system.

Process Input:

- Rating for staff, ambiance and food from the user.
- Feedback or comments from the user.

Process Output:

- Feedback confirmation or error message.

- Store the feedback into the database if confirmed.

Process Logic:

- User enters the orderID or Booking ID for confirmation.

- If user's orderID or booking ID is not valid then an error message, "You cannot rate the foods or staff without valid order or booking" will be shown to the user.

- If the orderID or Booking ID is valid then user can give their ratings and feedbacks.

- After that rating confirmation message will be displayed and the feedbacks and rating will be stored into the database.

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