Sri Lanka Institute of Information Technology



Group Project

MLB\_01.01\_07

Online Salon Booking System

Information Systems and Data Modeling – IT1090

B.Sc. (Hons) Information Technology

**Group Details**

Group Number : MLB\_01.01\_07

Project Title : Online Salon Booking System

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* **Hypothetical Scenario**

Now a days having a good look is a very important, with the busy lifestyle they need an online approach to manage their look. Online salon booking system is a user-friendly system which is a successful approach for modern world business competition.

Salon booking management system has been identified that admin, manager, customer, beautician, and job seeker as the users of the system. To use the system admin, customer, beautician, manager needs to login to the system first. For job seeker no needs to login to the system. First customer can select a branch, then customer can make bookings, select a beautician and system gives facilities for customers to purchase salon products also. Customer can do payments using online payment gateway. Beautician can respond to the bookings and beautician can use the salon products. Admin manages the database, and he can check bookings, ability to handle the payment process. And admin support to the manager giving details of the database. Manager manages the branch and guide to the beautician. And manager has capability to select the job seekers via responding for their applications. Job seeker can seek for a job offered by the branch and can apply.

The final goal of this salon booking system is to provide a reliable, efficiency and comfort service to the customer and giving valuable job opportunities for the persons who wish to do well and effective service. The salon booking management system giving to admins and managers to manage the system easily, and faultless.

* **Requirement Analysis**
* Customer login to the system by entering his/her username or email and password. If user is a new customer, then he-she must register to the system and login to the system.
* When the registering to the system user must choose a password, username and enter other general information such as Full Name, Address, DOB. Afterward those data must be saved to the database for future purposes. Mainly for login operation.
* Every registered customer has a unique Customer ID given by the system and customer gives access to change his account details if there has mistaken in the previous registration.
* Registered customer can search for a salon, make an appointment, select beautician, and purchase the salon products as their wish. Customer can make several appointments.
* Appointment’s amount will be change according to the packages and the selected beautician.
* Beautician has a beautician ID given by the system. Beautician receives appointment then checks the customer requirements. Beautician can be accepting or declining the appointment.
* Customer can rate the beautician after the appointment done.
* Customer can add salon products to the cart. Customer can get discounts according to the purchase and total amount will be displayed after the discount calculation. The customer make payment via credit card / debit card through the online platform an also do the bank deposit and sent the bank slip.
* Customer gets confirmation email which include payment receipt. Customer sends feedbacks and rate the system and customer can check the reply received for these feedbacks. If Customer needs to cancel the payment system will refund the money.
* The Administrator of the system check the appointments and check validity of payment details and he will provide the authority to continue the transaction once details are validated. All these data will be saved to the database.
* The Administrator update the site by adding new products, new offers, new vacancies, customer feedback photos decided by the Manager. The Administrator also has an employee ID which used to identify him/her.
* The Manager handles the salon branches and assign staff to the works. The Manager select The Job Seeker to the salon according to the qualification and the vacancy.
* Manager analyzing the system and arranging the staff and confirming the appointment schedule. Manager inquires the feedbacks and get solutions about customer inquiries.
* Manager gets a report about customer details, payment details, purchase details from the Administrator.
* Job seeker no need to login to the system first to seek for a job which offering by the salon. To applying to the job, now he/she needs to be register to the system a.
* When registering to the system he/she enter a NIC, a Password and afterward he need to fill the application which contains Full Name, Age, Address, Contact, Job Type, Qualifications, and the other personal details. The Job Seeker identify by his/her NIC.
* **Data Requirement Analysis**

Manager

* Manager\_ID
* First\_Name
* Last\_Name
* Address
* Phone\_No
* Email

Admin

* Admin\_ID
* First\_Name
* Last\_Name
* Address
* Email
* Phone\_No

Beautician

* Beautician\_ID
* First\_Name
* Last\_Name
* DOB
* Address
* Email
* Phone\_No
* Qualification

Branch

* Branch\_No
* Address
* Email
* Phone\_No

Customer

* Customer\_ID
* First\_Name
* Last\_Name
* Address
* DOB
* Email
* Phone\_No

Booking

* Booking\_No
* Service\_No
* Service\_Name
* Appointment\_Date

Product

* Product\_No
* Product\_Name
* Price

Payment

* Payment\_ID
* Product\_No
* Service\_No
* Amount
* Payment\_Date
* Customer\_ID

Job Seeker

* First\_Name
* Last\_Name
* Email
* DOB
* NIC
* Address
* Applied\_Career
* Branch\_No
* **ER Diagram**

**Diagram

Description automatically generated**

* **Relational Schema**

Customer

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Customer\_id | first\_name | last\_name | address | Branch\_no | DOB | Email |

Customer-Email

|  |  |
| --- | --- |
| Customer\_id | Phone |

Product

|  |  |  |  |
| --- | --- | --- | --- |
| Product\_no | Customer id | Product\_name | price |

Beautician

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Beautician\_id | first\_name | last\_name | qualification | manager\_id |

Beautician – phone

|  |  |
| --- | --- |
| Beautician\_id | Phone |

Beautician – Email

|  |  |
| --- | --- |
| Beautician\_id | Email |

Branch

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Branch\_no | address | Email | phone | Manager\_id |

Manager

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| manager\_id | first\_name | last\_name | address | Email |

Manager – phone

|  |  |
| --- | --- |
| Manager\_id | Phone |

Admin

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Admin\_id | first\_name | last\_name | address | Email |

Admin – phone

|  |  |
| --- | --- |
| admin\_id | Phone |

Payments

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Payment\_id | date | Beautician\_id | Customer\_id | Admin\_id | Product\_no |

Job\_seeker

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| NIC | first\_name | Last\_name | Applied\_carrier | manager\_id | address | Branch\_no |

Job\_seeker - phone

|  |  |  |
| --- | --- | --- |
| NIC | Phone | Manager\_id |

Booking

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Booking\_no | Service\_no | Service\_name | appoinment\_date | Customer\_id | Admin\_id | Beautician\_id |

Depentents

|  |  |  |
| --- | --- | --- |
| Beautician\_id | name | dob |

* **Security Requirements**
* Every user must sign into the system before accessing the system.
* Customer’s personal details should be encrypted.
* Customer’s credit details should be deleted from the database after checkout date.
* If User forgot the password, a link is sent to the registered email address for resetting the password.
* All users must register to the system using unique username, and the password with alphanumeric characters and it must have more than 8 characters.
* **Performance Requirements**
* A particular customer as any number of users can access to the system at any time (24 ×7).
* Payment receipt e-mail shall be sent into customer’s mentioned email within 1 minutes after Payment page termination.
* Also, the connection to the servers will be based on the attributes of the user like his location and server will be working 24 ×7 times.
* After customer done any changes in account, the account details in the database should be update immediately.
* All customers data should take a minimal storage capacity to store in the database and recorded in the system within 1 second.
* **SQL Database Tables**

CREATE DATABASE Online\_Salon\_Booking\_System;

USE [Online\_Salon\_Booking\_System];

CREATE TABLE Manager

(

Manager\_ID varchar(10) NOT NULL,

First\_Name varchar(20),

Last\_Name varchar(20),

Address varchar(50),

Email varchar(50),

Phone\_No int NOT NULL,

CONSTRAINT Manager\_PK PRIMARY KEY(Manager\_ID),

CONSTRAINT CK1\_Manager CHECK (Manager\_ID LIKE 'M%'),

);

CREATE TABLE Admin

(

Admin\_ID varchar(10) NOT NULL,

First\_Name varchar(20),

Last\_Name varchar(20),

Address varchar(50),

Email varchar(50),

Phone\_No int NOT NULL,

CONSTRAINT Admin\_PK PRIMARY KEY(Admin\_ID),

);

CREATE TABLE Beautician

(

Beautician\_ID varchar(10) NOT NULL,

First\_Name varchar(20),

Last\_Name varchar(20),

Address varchar(50),

DOB DATE,

Email varchar(50),

Phone\_No int NOT NULL,

Qualification text,

Manager\_ID varchar(10),

CONSTRAINT Beautician\_PK PRIMARY KEY(Beautician\_ID),

CONSTRAINT Beautician\_FK1 FOREIGN KEY(Manager\_ID) REFERENCES Manager(Manager\_ID),

CONSTRAINT CK1\_Beautician CHECK (Beautician\_ID LIKE 'B%'),

);

CREATE TABLE Branch

(

Branch\_No varchar(10) NOT NULL,

Address varchar(60),

Phone\_No int NOT NULL,

Email varchar(50),

Manager\_ID varchar(10) NOT NULL,

CONSTRAINT Branch\_PK PRIMARY KEY(Branch\_No),

CONSTRAINT Branch\_FK1 FOREIGN KEY(Manager\_ID) REFERENCES Manager(Manager\_ID),

CONSTRAINT CK1\_Branch CHECK (Branch\_No LIKE 'BR%'),

);

CREATE TABLE Customer

(

Customer\_ID varchar(10) NOT NULL,

First\_Name varchar(20),

Last\_Name varchar(20),

Address varchar(50),

DOB Date,

Email varchar(50),

Phone\_No int NOT NULL,

Branch\_No varchar(10) NOT NULL,

CONSTRAINT Customer\_PK PRIMARY KEY(Customer\_ID),

CONSTRAINT Customer\_FK1 FOREIGN KEY(Branch\_No) REFERENCES Branch(Branch\_No),

CONSTRAINT CK1\_Customer CHECK (Customer\_ID LIKE 'C%'),

);

CREATE TABLE Booking

(

Booking\_No varchar(10) NOT NULL,

Service\_No varchar(10) NOT NULL,

Service\_Name varchar(50),

Appointment\_Date DATE NOT NULL,

Admin\_ID varchar(10) NOT NULL,

Beautician\_ID varchar(10) NOT NULL,

Customer\_ID varchar(10) NOT NULL,

CONSTRAINT Booking\_PK PRIMARY KEY(Booking\_No),

CONSTRAINT Booking\_FK1 FOREIGN KEY(Admin\_ID) REFERENCES Admin(Admin\_ID),

CONSTRAINT Booking\_FK2 FOREIGN KEY(Beautician\_ID) REFERENCES Beautician(Beautician\_ID),

CONSTRAINT Booking\_FK3 FOREIGN KEY(Customer\_ID) REFERENCES Customer(Customer\_ID),

);

CREATE TABLE Product

(

Product\_No varchar(10) NOT NULL,

Product\_Name varchar(50) NOT NULL,

Price int,

Customer\_ID varchar(10),

CONSTRAINT Product\_PK PRIMARY KEY(Product\_No),

CONSTRAINT Product\_FK1 FOREIGN KEY(Customer\_ID) REFERENCES Customer(Customer\_ID),

CONSTRAINT CK1\_Product CHECK (Product\_No LIKE 'PR%'),

);

CREATE TABLE Payment

(

Payment\_ID varchar(10) NOT NULL,

Product\_No varchar(10),

Service\_No varchar(10) NOT NULL,

Amount int,

Payment\_Date DATE,

Admin\_ID varchar(10) NOT NULL,

Booking\_No varchar(10) NOT NULL,

Beautician\_ID varchar(10) NOT NULL,

Customer\_ID varchar(10) NOT NULL,

CONSTRAINT Payment\_PK PRIMARY KEY(Payment\_ID),

CONSTRAINT Payment\_FK1 FOREIGN KEY(Beautician\_ID) REFERENCES Beautician(Beautician\_ID),

CONSTRAINT Payment\_FK2 FOREIGN KEY(Customer\_ID) REFERENCES Customer(Customer\_ID),

CONSTRAINT Payment\_FK3 FOREIGN KEY(Booking\_No) REFERENCES Booking(Booking\_No),

CONSTRAINT Payment\_FK4 FOREIGN KEY(Admin\_ID) REFERENCES Admin(Admin\_ID),

CONSTRAINT Payment\_FK5 FOREIGN KEY(Product\_No) REFERENCES Product(Product\_No),

);

CREATE TABLE Job\_Seeker

(

First\_Name varchar(20),

Last\_Name varchar(20),

Email varchar(50),

DOB DATE,

NIC varchar(12) NOT NULL,

Address varchar(50),

Applied\_Career varchar(10),

Branch\_No varchar(10),

CONSTRAINT Job\_Seeker\_PK PRIMARY KEY (NIC),

CONSTRAINT Job\_Seeker\_FK1 FOREIGN KEY(Branch\_No) REFERENCES Branch(Branch\_No),

);

CREATE TABLE Customer\_Phone

(

Customer\_ID varchar(10) NOT NULL,

Phone\_No varchar(10),

CONSTRAINT Customer\_Phone\_PK PRIMARY KEY(Phone\_No),

);

CREATE TABLE Customer\_Email

(

Customer\_ID varchar(10) NOT NULL,

Email varchar(50),

CONSTRAINT Customer\_Email\_PK PRIMARY KEY (Email),

);

CREATE TABLE Beautician\_ID\_Phone

(

Beautician\_ID varchar(10),

Phone\_No varchar(10),

CONSTRAINT Beautician\_ID\_Phone\_PK PRIMARY KEY(Phone\_No),

);

CREATE TABLE Beautician\_ID\_Email

(

Beautician\_ID varchar(10),

Email varchar(50),

CONSTRAINT Beautician\_ID\_Email\_PK PRIMARY KEY(Email),

);

CREATE TABLE Manager\_Phone

(

Manager\_ID varchar(10) NOT NULL,

Phone\_No varchar(10),

CONSTRAINT Manager\_Phone\_PK PRIMARY KEY(Phone\_No),

)

CREATE TABLE Job\_Seeker\_Phone

(

NIC varchar(12),

Phone\_No varchar(10),

CONSTRAINT Job\_Seeker\_Phone\_PK PRIMARY KEY (Phone\_No),

);

CREATE TABLE Admin\_Phone

(

Admin\_ID varchar(10) NOT NULL,

Phone\_No varchar(10),

CONSTRAINT Admin\_Phone\_PK PRIMARY KEY(Phone\_No),

);

CREATE TABLE Dependents

(

name varchar(20),

DOB DATE,

Beautician\_ID varchar(10),

CONSTRAINT Depentednts\_PK PRIMARY KEY (name,Beautician\_ID),

CONSTRAINT Dependents\_FK1 FOREIGN KEY (Beautician\_ID) REFERENCES Beautician(Beautician\_ID),

);

* **Insert Data into Tables**

INSERT INTO Manager VALUES ('M01','Kasun','Jayakody','No.111, Perera Street, Nugegoda','kasunjaykody.salonj@gmail.com','0778567080');

INSERT INTO Admin VALUES ('ADMIN01','Dimuth','Karunathilake','No.680, Church Rd, Nugegoda','admin.dimuth.salonj@gmail.com','0776412513');

INSERT INTO Beautician VALUES

('B01','Ann','Jayathilake','No.15, Flower Street, Nugegoda','1986-08-27','ann.salonj@gmail.com','0765552521','NVQ Level 03 Qualified, 12 years Experience','M01'),

('B02','Malsha','Geethmi','No.30 3rd Lane, Maharagama','1989-03-21','malsha.salonj@gmail.com','0718255060','Diploma in Beauty Culture','M01'),

('B03','Heshan','Siriwardana','No.150/B, Gemunu Rd, Dickwella','1984-05-02','heshan.salonj@gmail.com','0702222222','NVQ Level 04 Qualified','M01'),

('B04','Piumi','Navoda','No.213, Kosowita, Gampaha','1996-08-14','piumi.salonj@gmail.com','0705243740','Diploma in Beauty Culture','M01'),

('B05','Malmi','Herath','No.56, Uluwitike, Galle','1987-08-06','malmi.salonj@gmail.com','0779825469','NVQ Level 03 Qualified','M01'),

('B06','Jayani','Rathnayke','No.47 Dewamiththa Rd, Galle','1985-09-02','jayani.salonj@gmail.com','0718006070','Diploma in Hear Dressing','M01'),

('B07','Puja','Kariyawasam','No.162, Silva Street, Nupe, Matara','1988-02-14','puja.salonj@gmail.com','0764523146','NVQ Level 04 Qualified','M01');

INSERT INTO Branch VALUES

('BR01','No.250, High Level Rd, Nugegoda','0112505680','salonj.nugegoda@gmail.com','M01'),

('BR02','No.140/A Wackwella Rd, Galle','0912504560','salonj.galle@gmail.com','M01'),

('BR03','No.60/B Anagarika Dharmapala Mawatha, Matara','0416698452','salonj.matara@gmail.com','M01');

INSERT INTO Customer VALUES

('C100','Nelu','Dias','No.246, Nawala Rd, Delgoda','1996-04-20','nelu@gmail.com','0774252627','BR01'),

('C102','Menaka','Perera','No.425/1, Kotikawatta Rd, Panapitiya','1998-02-20','menaka@gmail.com','0764562522','BR01'),

('C103','Suresh','Rajapaksha','No.21A, David Street, Colombo','2001-10-25','suresh@yahoo.com','0782565060','BR01'),

('C104','Pramila','Senavirathna','No.139, Dangedara Rd, Galle','1993-07-12','pramila@hotmail.com','0715630492','BR02'),

('C105','Silu','Zoisa','No.140/4, Rahula Rd, Matara','1991-05-15','silu@gmail.com','0714003011','BR03');

INSERT INTO Booking VALUES

('A111','HC02','Hair-Relaxing','2021-05-17','ADMIN01','B02','C103'),

('B112','MS01','Massage','2021-05-19','ADMIN01','B04','C104'),

('A112','HC01','Hair-Cutting','2021-05-18','ADMIN01','B03','C102'),

('B113','MK04','Skin-Treatment','2021-05-19','ADMIN01','B07','C105'),

('A113','HC05','Hair-Coloring','2021-05-21','ADMIN01','B06','C100');

INSERT INTO Product VALUES

('PR10025','Dreamron-HairColor\_WineRed','750','C103'),

('PR20006','RoseBeauty-SkinCare','1200','C105'),

('PR30007','Vitamin-E-ComboPack','890','C100');

INSERT INTO Payment VALUES

('PMT100','PR10025','HC02','1750','2021-05-12','ADMIN01','A111','B02','C103'),

('PMT101',NULL,'MS01','1200','2021-05-11','ADMIN01','B112','B04','C104'),

('PM1T02',NULL,'HC01','600','2021-05-13','ADMIN01','A112','B03','C102'),

('PMT103','PR20006','MK04','2400','2021-05-12','ADMIN01','B113','B07','C105'),

('PMT104','PR30007','HC05','1490','2021-05-11','ADMIN01','A113','B06','C100');

INSERT INTO Job\_Seeker VALUES

('Gayani','Fernando','gayani1234@gmail.com','1990-10-29','915645856V','No.36, Flower Street, Delgoda','Colorist','BR01'),

('Tharuka','Waththegama','tharuka95@gmail.com','1995-05-25','956238894V','No.64/A, Palliya Rd, Kaduwela','Therapist','BR01');

INSERT INTO Customer\_Phone VALUES

('C100','0715464750'),

('C103','0716546460');

INSERT INTO Customer\_Email VALUES

('C102','menaka.p@hotmail.com'),

('C105','silu.z@yahoo.com');

INSERT INTO Beautician\_ID\_Phone VALUES

('B03','0765446070'),

('B06','0762255688');

INSERT INTO Beautician\_ID\_Email VALUES

('B01','ann4a@gmail.com'),

('B02','malsha.g@gmail.com'),

('B03','heshan.s@gmail.com'),

('B04','piumi.n@gmail.com'),

('B05','malmi.h@gmail.com'),

('B06','jayani.r12@gmail.com'),

('B07','puja.kari@gmail.com');

INSERT INTO Manager\_Phone VALUES ('M01','0112504560');

INSERT INTO Job\_Seeker\_Phone VALUES

('915645856V','0718807933'),

('956238894V','0776658470');

INSERT INTO Admin\_Phone VALUES ('ADMIN01','0116652874');

INSERT INTO Dependents VALUES

('Asha Jayathilake','2000-05-25','B01');