Mykolas Romeris University

Object Oriented Design and Programming

SalonBooking.Com Project Description

by

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1.0 PROJECT ABSTRACT

This project seeks to create an online salon reservation system. Customers who wish to use this system will be able to log in and book a salon appointment in advance. Additionally, owners of the salon will be able to view the schedule. It is planned that a pseudo-database from a collection of text files or a relational database implementation would be used to store and retrieve appointments and customer data. The target audience for this system will be anyone who goes to the salon and salon owners. This project shall apply the idea of online hotel booking and online reservation systems in the beauty industry.

2.0 INTRODUCTION

SalonBook.com is an online salon reservation system which provides the online facilities needed to book, and manage salon appointments for both customers and salon owners. The traditional way of customers visiting salons is by going to the salons manually. However, SalonBook.com shall change this pattern from manual to online. It will help owners of salons to keep track of their customers' booking requests, manage the customers bookings easily, easily reply to customers' feedbacks, and also to keep the customers data more safely. It will bring together clients and salon owners more effectively, efficiently and often. The System shall allow clients to

make hair and beauty appointments 24 hours a day. Customers would have access to the salon's information, including the location of the salon. The system will also allow salon owners to view reservations and print real-time schedules. This documentation shows how the web-based system will be implemented and how it will function.

3.0 SIGNIFICANCE OF THE SYSTEM

The rising of online reservation systems has made the booking-appointments process easier and more efficient for both consumers and businesses. While this development is really helping a lot of industries across the world, it is not really implemented in many industries yet, one of which is hair and beauty salons industry. Many people across the world are busy or lazy, and sometimes, forget to call to make an appointment during traditional salons working hours of the day. If an online salon reservation system is implemented in the hair and beauty salons industry, these people would greatly benefit from it, as they can book their appointments at any time of the day. Also, the traditional manual ways of booking appointments are inefficient, and deprives salons of customer databases which could provide valuable information capable of improving customer services and retention. An online salon reservation system would solve these issues and link clients to salons in a much more accessible and efficient way.

4.0 REQUIREMENT ANALYSIS
4.1 Functional Requirements
- Customers can make reservations.
- Customers can cancel reservations from their account.
- Customers can get access to information about the salon (Address and Location, Email address, phone number, social media handles, Ratings, working hours, and prices of various styles).
- Customers have the option to either pay online with credit or debit card or make in cash payment at the salon.
- Customers can choose to subscribe for latest updates, and promotion notifications or vice versa.
- Customers can write reviews about the salon and rate the salon.
- Customers can check their booking status from their accounts.
- Reminder emails would be automatically sent out to clients before upcoming appointments.
- Salon owner can view customers reservation details.
- Salon owner is able to cancel reservations and send reasons for the cancellation to the customer afterwards.
- Salon owner can modify salon services.
- Salon owner can reply to customer feedbacks.
- Salon owner can be able to download schedules for each hair style (customers database) in simple and printable format.

4.2 Non-Functional Requirements

- The system ensures that all the transferable data as for example, customers credit or debit card details, CVV Code, and other electronic payment related data is done in secured manner.
- The system is able to handle multiple transactions at a time.
- The system provides customers the chance to make reservations 24 hours a day.
- The system should be able to support almost all browsers (Google chrome, Firefox, Safari, Internet explorer)
- The system is able to convert at least, two currencies in the world.
- The system is able to send newsletter about latest updates, promotion notifications and reminders to customers who subscribed to it.
- The system makes sure that, customers cancel their reservation before 12 hours to their appointment else, they would be charged an amount of penalty fee from their credit cards.
- The system makes sure that automatic confirmation emails are sent to both the client and the salon owner when a reservation is made or cancelled.

5.0 UML DESIGN

The full meaning of UML design is Unified Modeling Language Design. The purpose of this modelling language is to visualize the design of the system. There are so many types of UML diagrams, but for this system's description, Class and Use Case Diagrams would be used.

5.1 Class Diagram

This is the most used UML diagram in the field of software engineering design. It is known to be the main building block of any object-oriented solution such as this system. It is usually used to illustrate the classes, attributes and operations of each class, and also the relationships between classes in a system.
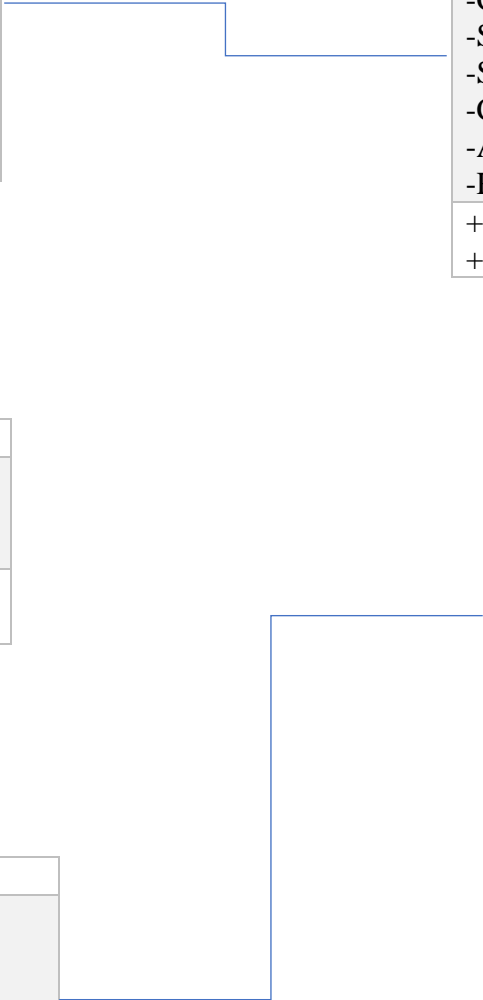Below is the Class Diagram for the SalonBooking.com.

Customer

-CustomerID: Int
-CustomerName: String
-CustomerEmail: String
-CustomerContact: Int

+AddCustomer()
+EditCustomer()
+DeleteCustomer()

Reservation

-ReservationID: Int
-CustomerID: Int
-SalonID: Int
-StyleID: Int
-CustomerName: String
-Amount: Float
-ReservationDate: DateTime

+AddReservation
+EditReservation

Location

LocationName: String
Latitude: Double
Longitude: Double

+DistanceTo()
+toString()

Style

-StyleID: Int
-StylePrice: Float
-StyleName: String

+AddStyle()
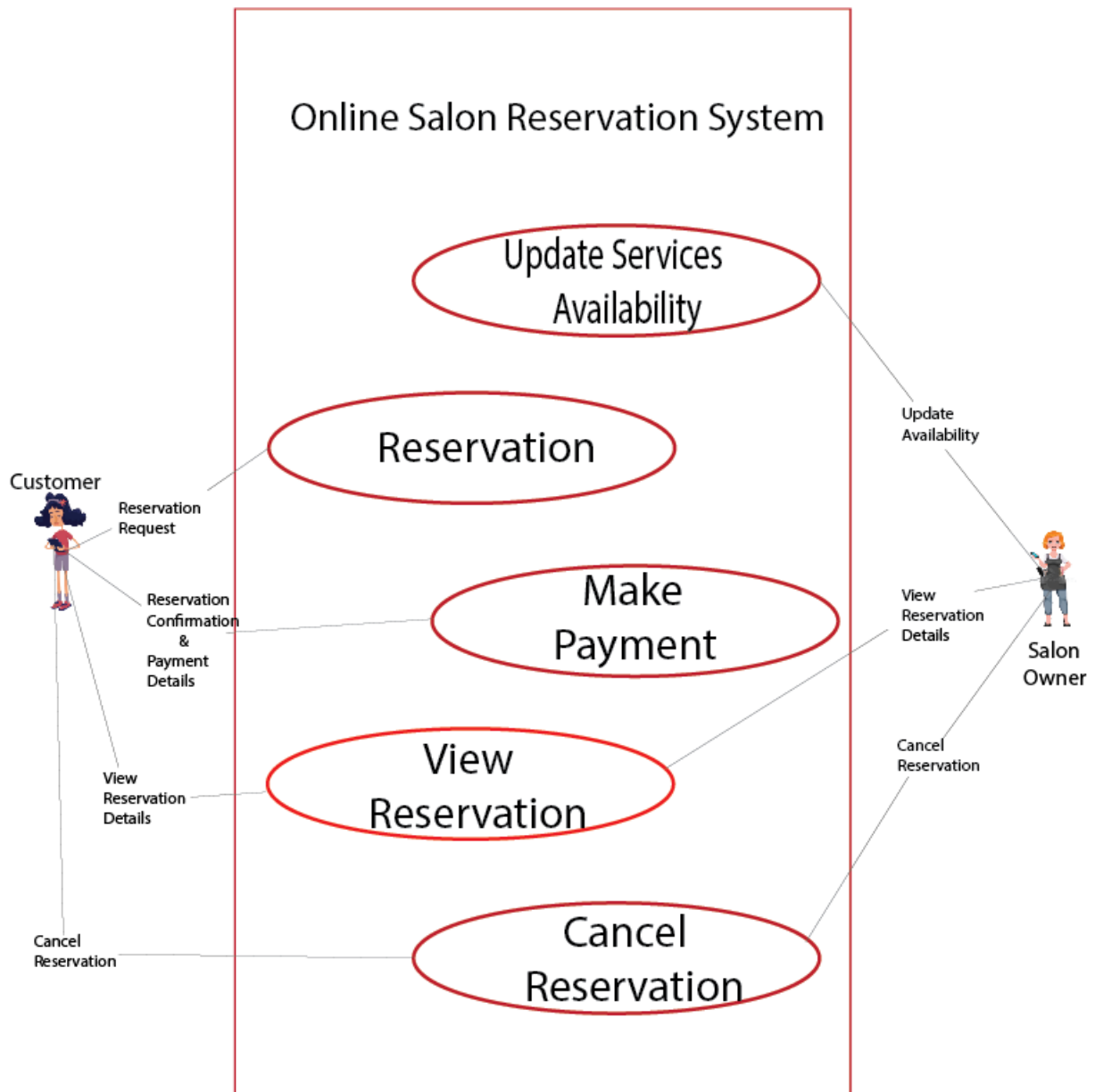+ModifyStyle()
+SelectStyle(-StyleID)

SalonOwner

-SalonID: Int
-SalonName: String
-SalonEmail: String
-SalonContact: Int
-SalonMedia: String
-SalonWorkTime: DateTime

+ModifyStyle()
+DeleteCustomer()
+SelectSalon()

5.2 Use Case Diagram

The Use Case Diagram is also called behavioral UML diagram. It gives a graphic over-view of the actors involved in a system directly. It shows the different functions performed by the actors and how these functions are interrelated.

Below is the "USE CASE DIAGRAM" of the SalonBooking.com system.

Online Salon Reservation System

Update Services Availability

Reservation

Make Payment

View Reservation

Cancel Reservation

Customer

Reservation Request

Reservation Confirmation & Payment Details

View Reservation Details

Cancel Reservation

Update Availability

View Reservation Details

Cancel Reservation

Salon Owner

Name:	Update Style and Working Time
Actor(s):	Salon Owner
Description:	The salon owner describes the styles and prices available. Also, the salon owner updates the availability of salon's services after logging into his or her account on the system.
Successful Completion:	1. New availability for hairstyles and time slots 2. Salon owner enters the available services details into the database
Alternative:	None
Precondition:	Salon owner updates the system entering new services availability
Postcondition	Customers can see the latest availability of salon services.
Assumption	None
Name:	Reservation
Actor(s):	Customer
Description:	Customer chooses the styles he or she would like to make, and the time and date he or she would like to visit the salon.
Successful Completion:	Customer makes reservation
Alternative:	None
Precondition:	Customers registered as a member on the system
Post condition:	Choose payment option
Assumption:	None
Name:	Make Payment
Actor(s):	Customer
Description:	After the customer chooses the type of payment method i.e., manual or online, the customer enters their credit card details (in the case of online payment).
Successful Completion:	1. Customers will receive the invoice

	2. Salon owners enter the customers payment details into database (whether online or manual payment)
Alternative:	Pay manually at the salon
Precondition:	Customers registered as a member
Postcondition:	Date and style are reserved by customer
Assumption:	None
Name:	View Reservation
Actor(s):	Salon Owner and customer
Description:	After the customer has made a reservation, both the customer and the salon owner can now view the reservation.
Successful Completion:	Both customers and salon owners can view the reservation.
Alternative:	None
Precondition:	Reservation is made by customer
Postcondition:	None
Assumption:	None
Name:	Cancel Reservation
Actor(s):	Both salon owner and customer
Description:	Either the salon owner or the customer can cancel the reservation by simply clicking of the "CANCEL" button.
Successful Completion:	Reservation is canceled
Alternative	None
Precondition:	There is a reservation made
Postcondition:	In the case of the salon owner, a valid reason must be given
Assumption:	None

6.0 TECHNOLOGY

6.1 Java

6.2 Pseudo-database from a collection of text files

7.0 PHYSICAL DESIGN

7.1 Home

The home will contain Style Search, Sign In, Sign Up, Manage Reservation, Gallery, View Reservation, and Log Out. The home also contains the location of the salon,

and news of latest promotions available for customers. The company's social media links (Facebook, Instagram, Twitter, etc.) would be present on the home. Customers can give their feedback on the social media site.

7.2 Sign Up (Customer)

From here customers can register to the system by providing their necessary details (Username, First Name, Last Name etc.). There will also be upcoming promotions present here.

7.3 Sign In (Customer and Stuff)

The Sign In is general for both customers and salon owner. The Sign In form is directly connected with the database. So, whenever anyone wants to key in the Username and Password, it will read the data from database for matching purpose.

7.4 Salon Description

Over here, customers can view the description of the salon. They can view the types of styles available, prices of various styles, availability of styles, location, etc. Customers can also see the pictures of hairstyles available.

7.5 Reservation Availability

Services availability according to customers chosen dates would be shown here. This will appear after customer select their date, time, and style. After clicking Search button, the system will display this page to the customers. For further references, customers will be able to see the ratings of the salon given by other clients. The individual price of a hairstyle will appear below each style. After choosing styles, they can click on the reserve button for reservation.

7.6 Payment

Here customers need to decide whether they want to make online or manual payment. If they decide to make an online payment, then they have to enter their credit or debit card details including the CVV (Security Code). Customers must make sure they enter the valid details otherwise the system will not allow them to proceed for booking. Here customers can also choose which type of credit card (VISA or MASTERCARD) they want to use. After giving all the valid necessary details, they have to click the button "PROCEED" in order to check out the details before completing payment. They need to type valid email address and phone number (country code included). Otherwise, the payment confirmation would be sent to an invalid email address. The system will not remember the CVV code of customer's credit cards(For security purposes).

7.7 Payment Details

The details of the customer credit card or debit card information is provided here. After, customers have to click the button "PROCEED". It will show them the

confirmation pages where they will see their booking details. In this page, the credit card number will show only the last 4 digits example ****************3078.

7.8 Reservation Confirmation

Reservation Confirmation email is generated by the system automatically after successful confirmation or payment along with the payment details by the customer. The confirmation mail will be sent to customers and salon owners through their registered email addresses.

7.9 Cancel or View the Reservation

Both customers and salon owners can view or cancel the reservation by simply clicking "Cancel" or "View."   Cancel will delete their booking information from their individual accounts. "View" would display the reservation and its details. Besides, a confirmation of "CANCEL" would be sent to customers and salon owners registered email addresses.

7.10   Contact Us

Here customers can get the contact number as well as address of the company. They can also send their enquiries and questions through the system directly to the company. However, customers have to make sure they enter their details like email addresses correctly. The salon owner can send a reply to customers through their email addresses through to the customers inbox.

8.0 LIMITATIONS

Although this system will provide reservation facilities to customers. However, it has some limitations. One of the limitations is the verification of the validity of credit card credentials. Another is the email functionality. The email functionality may not be reliable. These and many limitations exist because of the fact that, this system would be built from scratch for the first time. Also, it is a school project and there is very limited time to make every single feature mentioned in this description documentation function properly. Some of the features mentioned in this description documentation may not be present in the SalonBooking.com yet.

9.0 CONCLUSION

In conclusion, this system would benefit both customers and salon owners. It would provide avenue for salon owners to upload salon services they provide, customers to view services provided by the salon, make reservation by choosing the kind of style(s) they would like to make, time and date they would like to make it, and make payments. The system also provides avenue for both salon owners and customers to view the reservation made by a customer. Also, both salon owners and customers could cancel the reservation. Hopefully, the mobile application version of this system shall be released soon. That way, both parties could download the application on their phones. The mobile application shall support IOS and Android operating

systems. Overall, this system shall give both customers and salon owners a user-friendly environment for online salon reservation.