University of Kelaniya

Department of Industrial Management

Project Proposal

Salon Reservation System

INTE 21213 - Information Systems Modelling

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1. Five Star Salon

The Five Star salon is a Ceylon Salon Association-approved salon operated in the town of Vavuniya. There are 3 barbers(beauticians) working. The services provided by the Five Star Salon are hair cutting, shaving, head massaging, beard trimming, ironing, straightening, hair coloring, and facial and skin care treatments for both male and female customers. Their unique characteristic is their hospitality. And also they sell their beauty products such as facial creams and fenugreek oil at their shop at a reasonable price. Currently, they get appointments from customers for jobs via WhatsApp or by calling.

2. Salon Reservation Process

Currently, the Five Star Salon's reservation process is entirely manual, as shown below. Customers typically make reservations over the phone or through the salon's receptionist.

The receptionist's main responsibility is to go through confirmed and pending reservations to check the availability of the date and time, negotiate with the customer about the dates, and inform the customer about another date or time if the required date or time has already been reserved. If the desired date and time are available, the customer is asked to provide personal information such as his or her name and phone number and the job that he wants. The package details, discounts for regular customers, and worker details are given to the customer by the receptionist. Then the receptionist provides a job number to the customer to avoid a crash. The receptionist must check whether the appointments have been done or not. If the appointment is canceled or missed by the customer, he/she can re-arrange another day for their reservation.

If the pending reservation is not confirmed by the customer, it will be discarded by the receptionist. When the customer is on the booking time, receptionist assigns him/her to a beautician. Otherwise, the receptionist makes a call to the customer to confirm whether he/she is available. If the customer is not available, the receptionist should check the arrival of the next customer.

When the job is completed, the beautician should inform it to the manager. Then the receptionist collects the payment and prepare a payment copy to the customer. She keeps the original payment receipt to prepare the daily collection summary. After issuing the copy of the payment receipt, the receptionist should get feedback from the customer. At the end of the day the receptionist should send the daily collection summary and feedback to the management.

The manager should manage the staff. He has to collect all the personal details about the staff members, such as names, addresses, phone numbers, and qualifications. The manager goes through the daily attendance to prepare the salary sheets.

The cosmetics are sold at the sales desk. When a customer buys products, he issues a bill. He should keep an inventory of cosmetics and a price list.

3. Problem Definition

The Five Star Salon has identified the following major business problems in their current reservation system as part of their high-level strategic review.

- No proper way to manage customers' reservations.
- Five stars salon has to maintain all the customers, staff and inventory databases manually.
- Going through the customer history to provide discounts for repeat customers is inconvenient.
- Time crashes can occur due to a lack of a digitalized systems.
- Updating inventory details is inconvenient.
- Reservations are made entirely manually, and the amount of paperwork makes the system error-prone and inconvenient.
- Not having employee details management system.
- Taking more time to prepare bills.
- No proper plan to restock the salon items and equipment.
- No data backup option.

As a result, the five-star salon wishes to computerize their reservation system not only for current operations but also for future demand.

4. Objectives of the Proposed System

The proposed salon reservation system will provide their customers to make online appointments and reserve time slots. This approach enables clients to receive services efficiently without delaying, and employees can do their work with time management.

The future system will also provide assistance for the management decision-making process. A statistical and operational research analysis tool may be used to determine the time when customers visit the salon the most, busy hours, and the number of workers to be brought in based on client needs.

Also, a unique feature is that the user can easily track the daily and monthly earnings in the form of graphs. This system can compute the number of days and hours worked by employees. Moreover, customers can provide their feedback. The system can keep historical data to evaluate

who got service and product from their salon. For this, they are needed to keep customers details against the issued reports historical data.

Clients can view the stock of cosmetics and other products on an online basis using this system. They can purchase them through the cashier. Salon reservation system can manage both consumer and employee details.

The system will provide user-friendly web application which will help them to make reliable, quick, and effective service. The same web application is used by both the client and the salon administrator.

5. Scope of Project

We have identified mainly six main user sides of this Salon Management System.

- Customers
- Staff members/Employees
- System Admin
- Sales Desk
- Receptionist
- Manager

Here are the main features proposed to give for the above users.

Customers

- ➢ Providing customer feedbacks.
- ➢ Check the availability of the time slots.
- ➢ Can view the stock of cosmetics and other products on an online basis using this system.
- ➢ Receiving the confirmation message regarding the booking.

System Admin

- ➢ Add, update, delete time slots.

Manager

- ➢ Can receive a daily collection summary.
- ➢ Receiving customer's feedbacks.
- ➢ Can assign a staff member to the customer.

Receptionist

- ➢ Confirming the customer booking.
- ➢ Update daily collection summary.
- ➢ Manage pending reservations of the customer.
- ➢ Replacing the pending reservation with a new booking.

Sales Desk

> Displays the product brand, quantity and prices of the inventory.

Staff Members/Employees

> Provide the services.

6. Feasibility Study

This analysis takes all of a project's relevant factors into account, including technical, financial, operational, and business considerations, to ascertain the likelihood of completing the project successfully.

1. Technical Feasibility

Five Stars Salon is currently keeping all the customer, staff, and inventory records manually. Business is not using computers for its operations. Therefore, to implement the new system, new computers and software should be purchased. The hardware and software configuration for the implementation environment is as follows.

- **Hardware requirements**

There is no requirement for computers with high performance because the new system is a web-based application. Two computers with normal levels of performance are adequate to run the system in business premises.

> Intel Pentium Gold/ Intel Core i3/ AMD Ryzen 3 CPU
> 4 GB RAM or higher
> 500GB Hard Disk
> 128GB Nvme SSD
> 19-inch LCD Monitors
> Keyboard and mouse

- **Software requirements**

Windows 10 or higher is recommended as the operating system to support new servers, information security requirements, and application software.

> MS Windows 10 Home
> MS Office
> MS SQL Server

- **Connectivity**

A fiber optic or a 4G connection with better speed (40mbps or higher) is recommended because this system is a web-based system. The operating area of the salon has fiber and 4G connectivity.

- **Development**

Coding Languages - HTML5, CSS, JavaScript, PHP

Data Base - SQL - MS SQL Server

IDEs - Sublime Text Editor, MS SQL Workbench

2. Financial Feasibility

All design, development, implementation, and testing of the system will be done by our development team. Therefore, we are able to reduce the cost of outsourcing.

Definite Expenses

- Hardware costs
- Software costs
- Cloud storage
- Hosting services

Indefinite Expenses

- Enhancements and Upgrades
- Employee training costs
- Auxiliary costs

Cost Components

- Designing -
- Development -
- Implementation - Hardware, Software, Cloud space, Hosting Staff, Training
- Testing

3. Operational Feasibility

After gathering requirements from the system owner and system users, we have identified critical user roles in the system by creating user stories.

Salon Manager/ Owner
System Admin
Receptionist
Employees
Customers

4. Organizational (Business) Feasibility

An organizational feasibility analysis is conducted to determine whether a proposed business has sufficient management expertise, organizational competence, and resources to successfully implement the new system.

There are only three beauticians and a manager currently working in the salon. They have considerable computer literacy, which is the knowledge of using smartphones, computers, and the internet. Initial user training is required. The business already has essential infrastructure such as electricity and connectivity.

The system would be designed using user-friendly interfaces.

7. Business Activity Model
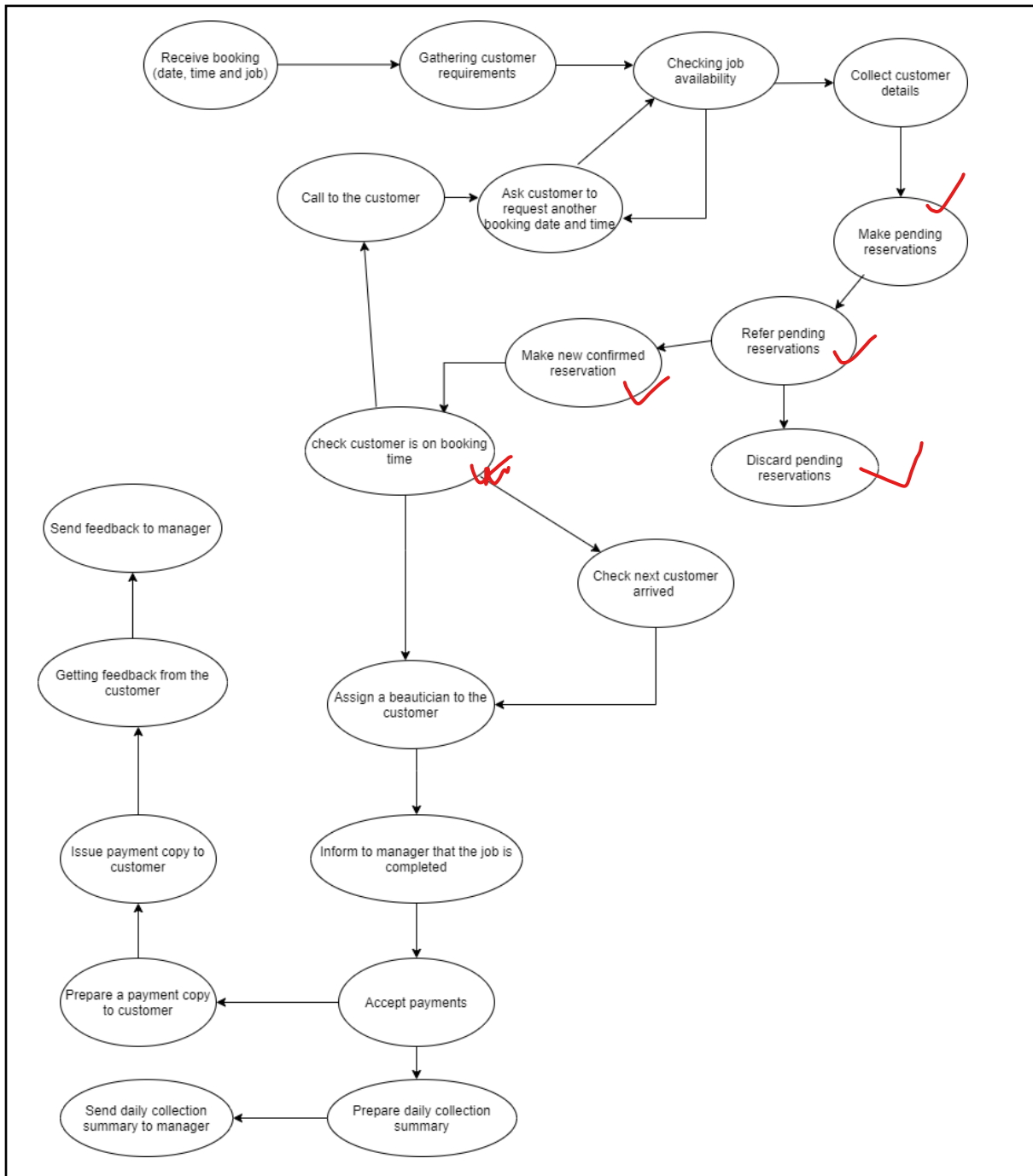
8. Context Diagram
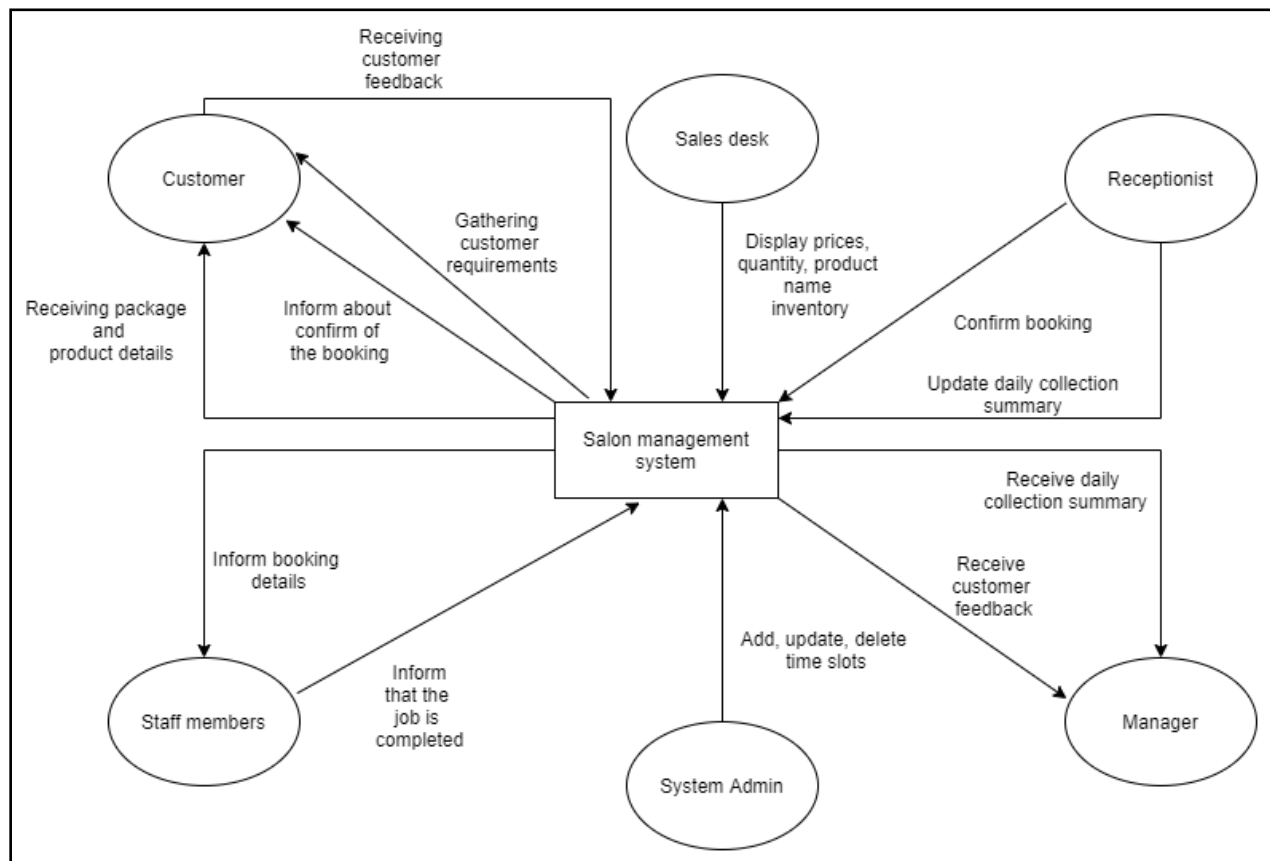
9. User Stories

1. As a receptionist, I want to gather customer requirements because I received a booking.
2. As a receptionist, I want to check job availability because customer inquiries.
3. As a receptionist, I want to negotiate with the customer about the time slots because the required time slots have already been reserved.
4. As a receptionist, I need to offer another time because the customer wants another time slot.
5. As a receptionist, I need the customer's information so that I can make a pending reservation.
6. As a receptionist, I need to refer to pending reservations so that a new confirmed reservation can be made.
7. As a receptionist, I need to provide a job number to the customer so that customer can arrive at the booked time.
8. As a receptionist, I need to refer to pending reservations so that I can discard expired reservations.

9. As a receptionist, I need to check whether the customer arrived on booking time so that I can Assign a beautician to the customer.
10. As a receptionist, I need to check whether the customer arrived on booking time so that I can call the customer.
11. As a receptionist, I need to check whether the customer arrived on booking time so that I can discard the reservation.
12. As a receptionist, I need to ask the customer to request another booking date and time because the reservation has expired.
13. As a receptionist, I need to check that the next customer has arrived because the reservation has expired.
14. As a beautician, I need to inform the manager that the job is completed because the payment should be paid.
15. As a manager, I need to inform the receptionist so that receptionist can accept the payment.
16. As a receptionist, I need to accept the payment because the job is completed.
17. As a receptionist, I need to prepare a payment receipt so that I can prepare the daily collection summary.
18. As a receptionist, I need to issue a payment copy to the customer so that I can prepare the daily collection summary to get feedback from the customer.
19. As a receptionist, I need to send feedback to the manager because the manager has requested it.
20. As a receptionist, I need to send the daily collection summary to the manager because the manager has requested it.
21. As a manager, I need to receive the daily collection summary at the end of the day because the receptionist sent it.

10. Requirements Specification

- Functional requirements
- Shall be able to keep customer details and booking details
- Shall facilitate browsing the available booking details
- Shall be able to refer pending bookings
- Shall be able to generate the daily-collection summary
- Shall be able to discard the expired reservations
- Shall be able to generate new bookings
- Shall facilitate to browse the package prices
- Shall facilitate to browse the customer history
- Should facilitate to advertise on web
- Should facilitate for online bookings
- Shall be able to refer inventory products

Non - Functional Requirements

- Shall be able to provide a friendly GUI
- Shall run on Windows 10 or later operating systems
- Shall make use of existing software & hardware
- Shall facilitate to access bookings concurrently

11. Project Plan

Task name	Start	Finish	Duration
Start the project	05/08/2022		
Brainstorming	05/08/2022	08/08/2022	4d
System analysis			
Investigate current system	09/08/2022	11/08/2022	3d
Propose BSOs	12/08/2022	13/08/2022	2d
Define requirements (SRS)	14/08/2022	15/08/2022	2d
Project Proposal	14/08/2022	18/08/2022	5d
Submit Project Proposal	18/08/2022		
System design			
Logical design	19/08/2022	25/08/2022	7d
Physical design	26/08/2022	08/09/2022	14d
Implementation			
Database development	07/09/2022	09/09/2022	3d
Program development	10/09/2022	19/09/2022	10d
Testing	20/09/2022	22/09/2022	2d
Project report	19/08/2022	25/09/2022	38d
Multimedia presentation			
End of the Project			

12. References

J.A.J.N, J. (2018). *Online Salon Management System For Samudra Bridal Palace.* University of Colombo School Of Computing.

Perera S, W. W. (2006). *Camping Reservation System for Adventure Camping (Pvt.) Ltd. Project Proposal.* Department of Industrial Management, Faculty of Science, University of Kelaniya.

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