
SHANGRILA SPA



ISTN3AS MILESTONE 1 Group 21

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<u>CONTENTS</u>	<u>PAGE</u>
Problem Statement	3
Background information:	
1. Client information	4
2. Business Area	5
List of features	6
Business Procedures	7
Logical models	
Context level diagram	8
Level 0 data flow diagram	9
Entity relationship diagram	11
Conclusion	14
Appendix one	15
Appendix two	16
Appendix three	19

PROBLEM STATEMENT

Mrs Anneline Govender is a sole proprietor of her business. She constantly receives appointments telephonically via her website, email and social media. Appointments are recorded using the old pen and paper method whilst employee times, inventory and client information are captured through spreadsheets using Microsoft excel. There is no custom designed (or designated) electronic system/software being implemented to ensure data is being captured accordingly (reducing anomalies). The problem of maintaining data security in addition to pilferage remains an issue. The pen and paper capturing method could result in loss of data or invoices to monitor finances during the month, as well as manipulation of recorded data. This system also leaves error for multiple clashes of appointment times which could result in confusion. Using the pen and paper method can lead to mismanagement of historical appointments.

Having such a system in this business, which is outdated leads to multiple inconveniences that are high-risk to the business and can lead to potential loss in the number of clients. Keeping of track social media, products and email appointments prove to be difficult for the owner. This is due to the fact that customers decide to make last minute changes to their appointments that have been placed. Data capturing, using this particular method and software (Microsoft Excel) becomes a tedious task which is often very time consuming or inaccurate, especially with the several other tasks that she is responsible for as the sole proprietor of her business.

The limitations of the current system are:

- System is incapable of generating various reports
- System doesn't store details of customers
- System doesn't store details of staff
- System gets its appointments through email and social media therefore, it is prone to human error such as misinterpretation and key aspects being omitted
- System is not effective or efficient since it results in delayed replies and enquiries
- System has no method of tracking staff working hours

- It has an abundance of manual paperwork of the supplier, customer and order details which is time consuming to go through and obtain. The accumulative paperwork leads to redundant data in product information which results in confusion amongst employees and has led to concerns regarding loss of documentation.
- System does not cater for clashing of appointments
- System does not cater for clashing of masseuses'
- System is incapable of generating an invoice
- System does not convey discounts and offers

Type of System(s) we aim to develop:

- Appointment Management system

BACKGROUND INFORMATION

1. Client Information

Organisation name	:	Shangrila Spa
Owner	:	Anneline Govender
Manager	:	Anneline Govender
Trading Hours	:	Mon: 9am – 5pm Tues-Thurs: 9am – 7pm Fri & Sat: 9am – 6pm Sun: Closed Public Holidays: 10am – 3pm
Phone no	:	061 218 9935
Physical address	:	Shop 6, 28th Avenue Umhlatuzana 4092
Email	:	info@shangrila.co.za

2. Business Area

The Shangrila Spa is a beauty/therapy spa situated in Umhlatuzana established in 2011, it is an ever-growing business with thousands of clientele. Shangrila aims to provide a variety of services that range from manicures and pedicures to full body massages. Their personalised packages vary every month to give you a better spa experience on every visit. Staff are highly trained and determined to give you the best service possible. Anneline Govender is the mastermind entrepreneur behind this pioneering establishment, her knowledge of being a masseuse, makeup specialist and nail therapist abroad the world, originated from working on a tour ship during her youth as well as travelling and working further in London. Her time abroad allowed her to gain an abundance of experience and save up all her hard-earned money to venture back to South Africa where she could pursue her dreams to develop a spa of her own.

Customers of Shangrila are allowed to phone in and create appointments for various packages or treatments, they may also enquire, or order products sold by the spa. Anneline and her staff are often clustered with appointments or are too busy in treatment with other customers, this results in a time dilemma and possible conflicts of appointments when recorded on their current system. Anneline does not have a digitalised system to help her capture all the necessary information her business requires (which should also meet a set of data rules) which makes it difficult for her to keep track of products and appointments as well as the work her staff does and the money made from these services/products sold.

Shangrila gains a vast number of customers from far and wide, daily through adverts, social media, recommendations etc. Due to this great influx in clientele, the demand for product sales and booking of appointments has greatly increased which in turn resulted in a greater demand for a more efficient system to be built to meet this demand.

LIST OF FEATURES

Feature Description	User Profile	Priority (Low/Medium/High)	No of Days to develop
Log into the system	Manager	High	1
Add new service	Manager	High	1
Change/cancellation of service	Manager	High	1
Add new package deals on services	Manager	High	1
Update discounts on package deals	Manager	High	1
Provide personal details	Employee	High	1
Add new staff details	Manager	High	2
Update staff details	Manager	High	1
Add customer details	Employee	High	2
Update customer details	Employee	High	1
View appointments	Employee	High	1
Add appointment details	Employee	High	1
Generate and print invoice	Employee	Low	1
Search for customer details	Employee	High	2
View customers	Employee	High	1
Request customer details	Manager	High	1
Request staff details	Manager	High	1
Generate reports	Manager	High	1
Request reports	Manager	High	3
Update appointment	Employee	High	1

BUSINESS PROCEDURES

The customer calls the store and enquires availability of appointment. The customer then gives their required details to the receptionist. An invoice stipulating cost, treatments and promotions created by the manager is generated and printed.

At the beginning of the day employees request their appointment schedules to see their treatments for the day. An appointment schedule is sent to the employee. At the end of the day the employees are required to input all details from completed appointments and any other required information.

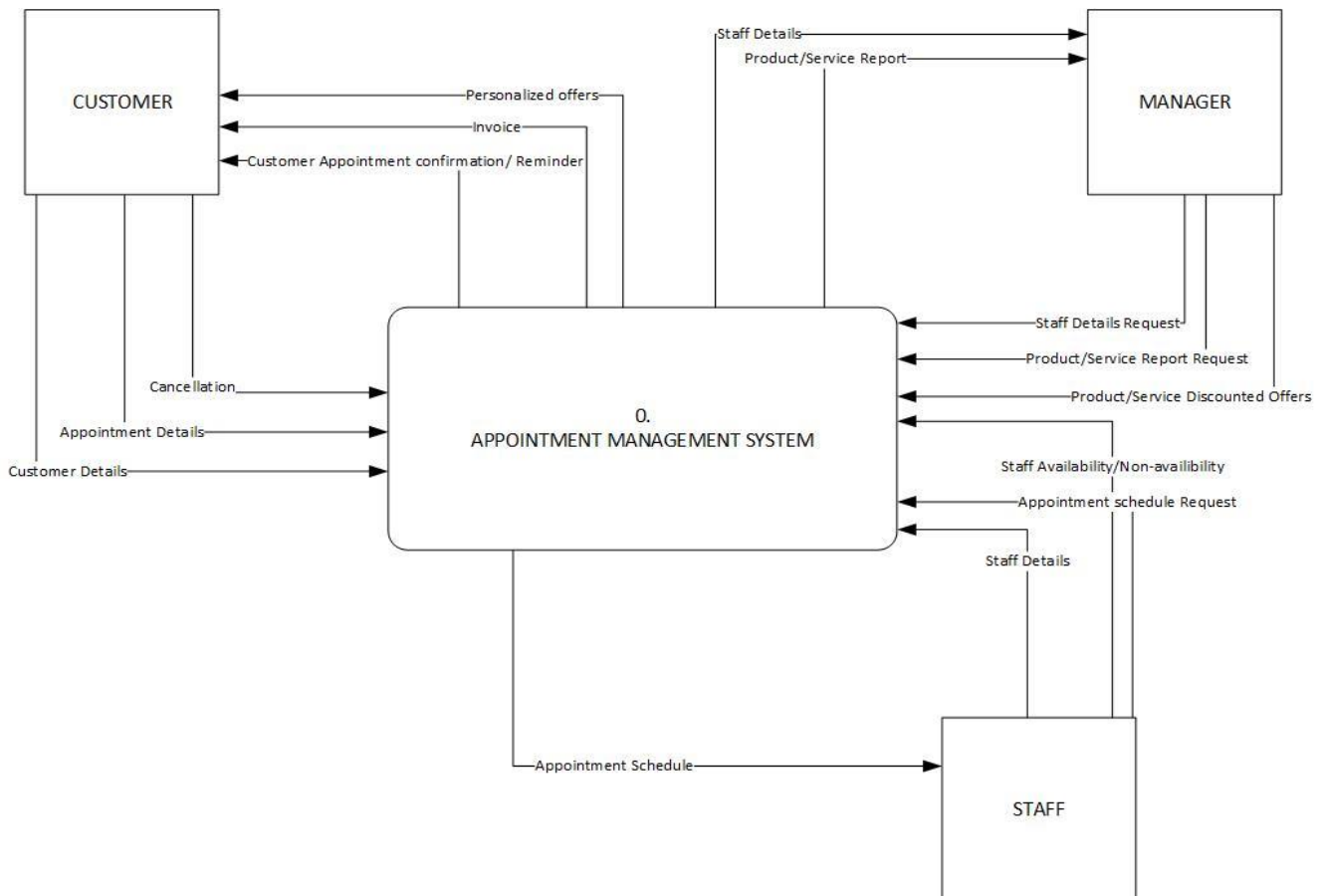
At the end of the day, the manager requests from the system both the staff details and products/ services reports. This allows the manager to keep track of products and services as well as employees. Once a request for the reports is completed the system will generate and send the reports to the manager. The manager also has the task of completing product and service discounted offers for the month which will be inputted into the system and sent to the customers at the beginning of every month.

CONTEXT LEVEL DATAFLOW DIAGRAM

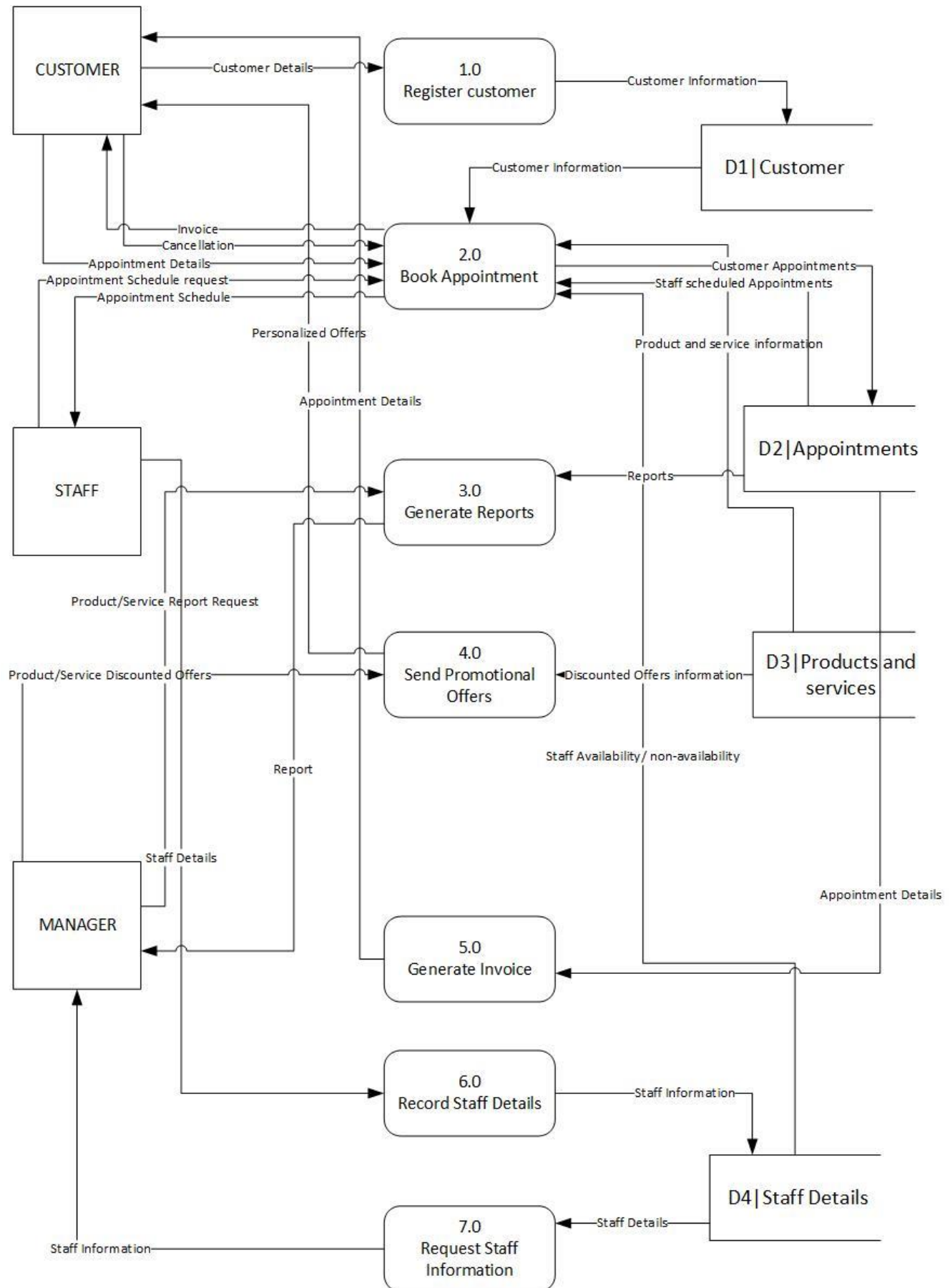
The context level diagram consists of 3 entities namely customer, manager and staff. The receptionist forms part of the appointment booking system (i.e. the system in the diagram) as they create and manage appointments made and is therefore not an entity. A customer will request an appointment by supplying the system with their details as well as the details of the appointment. The system then captures this information and responds by sending the customer an invoice as well as an appointment confirmation/reminder. A Customer May also cancel an appointment if they wish to.

The staff members would request their appointments for the day and the system would respond by sending them appointment schedules. The staff members also provide the system with their details and the system stores these details. When the manager requests the staff details the system would react by providing the manager with these staff details.

The manager requests the product/service reports and the system would respond by providing these reports to the manager. The manager also provides the system with discounted product and service offers. These Products and services are provided to existing customers whenever promotional offers become available.



LEVEL 0 DATAFLOW DIAGRAM



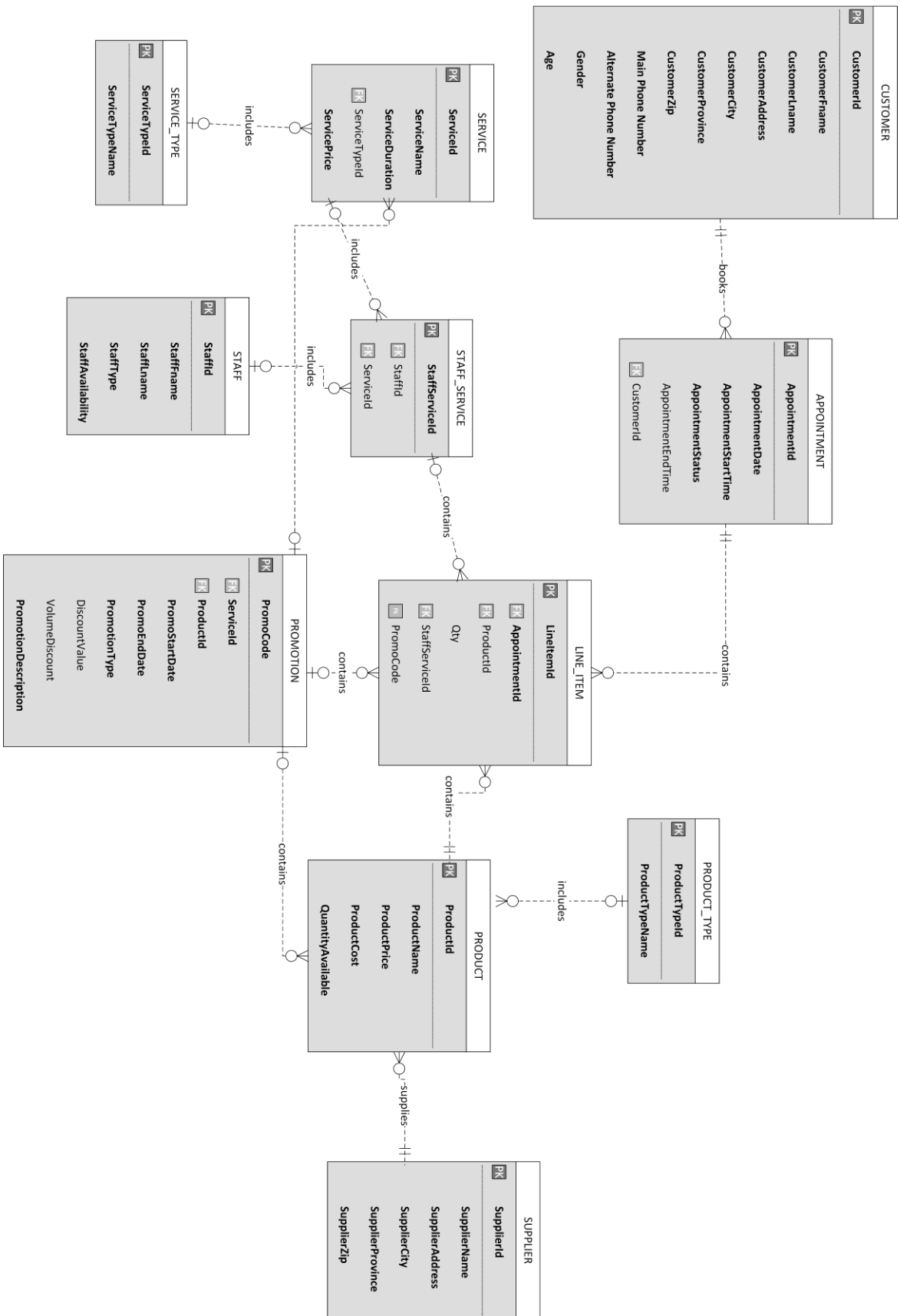
The data flow diagram above is a level 0 diagram. The process numbered 1 describes the process whereby a customer is registered. The customer provides the system with their details. The system then processes the details and stores them in a data store “customer”.

When the customer books an appointment (process 2) the system receives the customer information, appointment details, product and service information from the D3 data store and staff availability from the D4 data store. The customers appointments are stores with all their details in the D2 data store “Appointments” and the customer receives an invoice. A customer may wish to also cancel an appointment. Staff members receive an appointment schedule from the system.

The manager requests information on the products and services and the system responds by providing the manager with a product service report which it gets from the data store “reports”. The manager provides discounts on products and services to the system which uses the discounted offers information from the data store D3 “Products and services” and gets sent to the customer.

Staff members input their details into the system which the system then stores in the data store “Staff”. When the manager requests staff details, the system responds by providing the manager with the staff details from the data store.

ENTITY RELATIONSHIP DIAGRAM



Relationship between entities

- An appointment is booked by 0 or 1 customer
- A customer books 0 or many appointments
- An appointment contains 1 and only 1 line item
- A line item is included in zero or many appointments
- Staff service includes zero or many line items
- A line item is included in zero or 1 staff service
- A line item includes 1 and only 1 product
- A product includes 0 or many line items
- A product includes 0 or 1 Product types
- Product type includes 0 or many products
- Supplier supplies 0 or many products
- Products are supplied by 1 and only one supplier
- Promotions contain 0 or many products
- Products consist of 0 or 1 promotion
- Promotions contain 0 or many line items
- Line items contain 0 or 1 promotion
- Promotions include 0 or many services
- Services contain 0 or 1 promotion
- Service type includes 0 or many services
- A service Includes 0 or 1 service type
- A service includes 0 or many staff services
- Staff service includes 0 or 1 service

Line item - Line item contains all the data needed to generate an invoice. An appointment may contain products, services or both.

Staff Service- This table keeps track of which staff member is providing the service. An appointment may contain more than one service that is provided by more than one staff member

How will the system deal with booking problems?

The field StaffAvailability will store a boolean value. If a staff member is not available, the manager will indicate this through the staff management feature of the system (Refer to Appendix Two, proposed GUI feature). The system will then change the value of staffAvailability to False.

The system will change the value of staffAvailability to False, once the appointment is completed the staff member will update the appointment status to complete and the system will change the value of staffAvailability to True.

This would ensure that a staff member that is already booked is not booked twice.

Overbooking- To prevent overbooking a formula to calculate Work hours available will be used. The formula: $(\text{Trading hours} * \text{Number of workers available for the day}) - \text{Service Duration} = \text{Work Hours Available}$. When Work Hours Available = 0 the spa would now be fully booked for the day.

CONCLUSION

The Current system that is implemented showed numerous flaws and problems that could hinder future growth of the business. This showed that a system is needed to be developed for the business to improve. The owner of the business will need to consider that a new system will be costly but allow the business to improve sales, appointments and clients in the long run.

The new system will allow the business to proceed with clients in a timelier fashion than before. Invoices can assist in recording service/product sales and confusion of appointments will be minimised. The system will provide great value to the business and is seen to be a wise investment for future business growth.

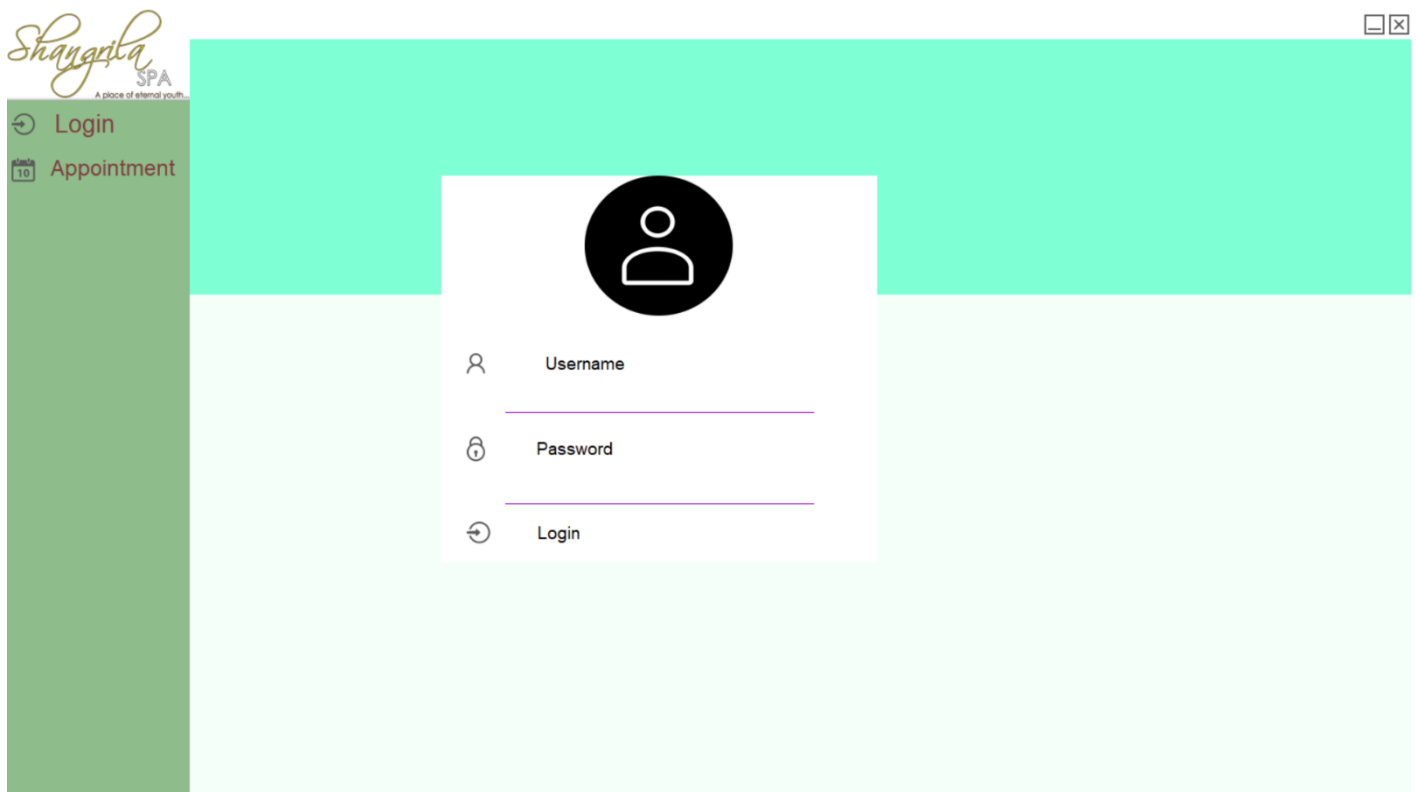
APPENDIX ONE

GROUP CONTRIBUTION

No.	Student Number	Name and Surname	% Estimated contribution	Signature
1	216034264	MIKARA PATHER	100	
2	216002181	FARNAAZ NOORBHAI	100	
3	217021772	ASHRAF BHAROOCHI	100	
4	218005822	RIKESH KYLAS	100	
5	218002057	MOHAMED ESSACK	100	

APPENDIX TWO

SYSTEM GUI



New Customer Existing Customer



First Name

Last Name

Primary

Emergency

Address

City

Province

Postal

[Create Customer](#)



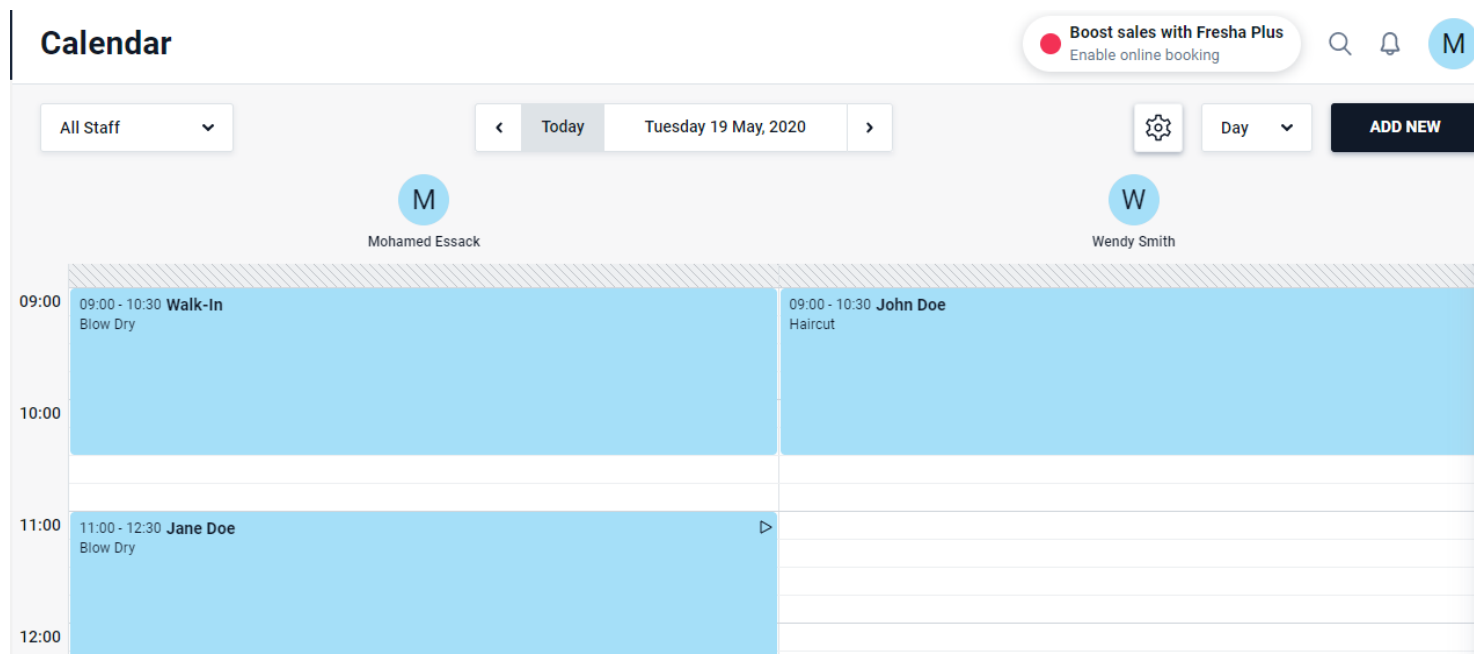
Date

Time

Status

Proposed GUI feature

The figure below shows an example of how the system will handle bookings of appointments to prevent double booking. This is used as a reference for our proposed GUI which is still in development.

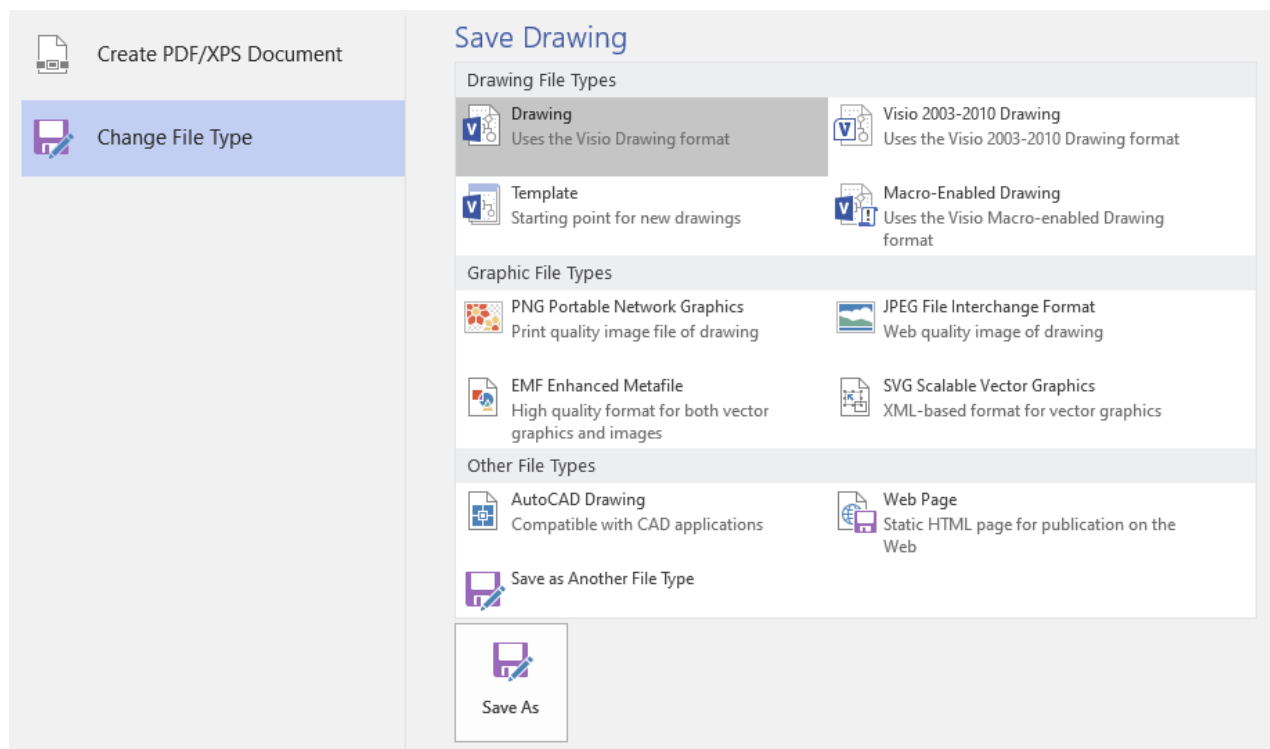
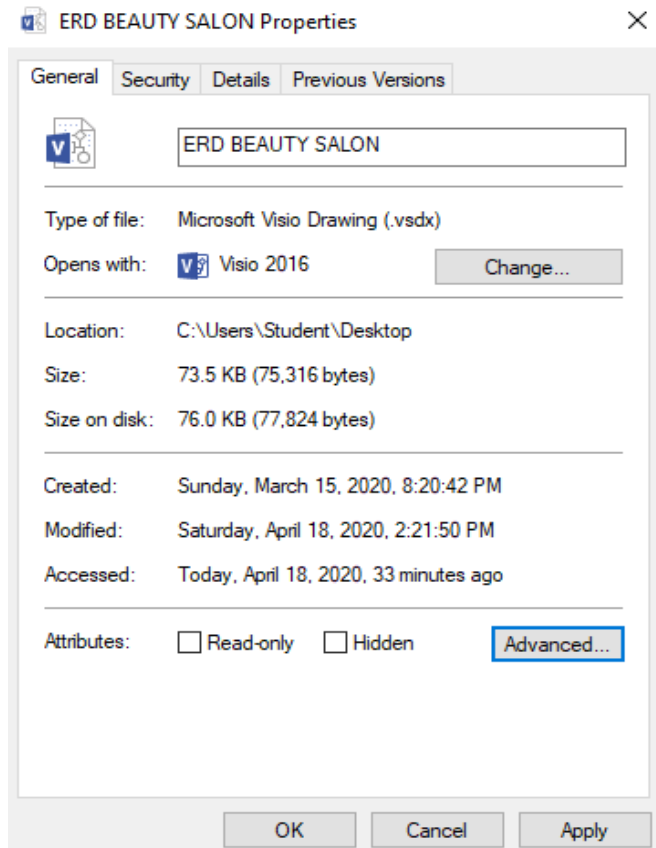


Reference: www.fresha.com/fro-business

APPENDIX THREE

VERSION CONTROL HISTORY – Additional content

USER 1 - Using Visio 2016 to create and edit the .vsdx file containing the ERD diagram used in this document.



USER 2 – No Visio access with Office 365, instead Internet Explorer is used to access this 2016 .vsdx file version of Visio.

