**System Requirements Document**

Customer and Appointment Tracker

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Introduction

**Purpose**

The main purpose of the Customer and Appointment Tracker application is to allow healthcare clinics to view daily appointments, view customer data, and add new clients to the system. The application should be able to display all appointments for the day on a schedule, should have a page for adding new clients with all of their information, and should have a page to schedule appointments for their clients. It should also have a search functionality so that employees can view the information of any client that is already in the system.

The purpose of the System Requirements Document is to provide a clear layout of what the application needs to achieve and how it should perform and function. This document will contain the behaviors, functions, and capabilities of the application, as well as any constraints or issues that may arise in the development process and how to to handle them. The requirements and non-requirements of the application will also be included.

**Scope**

The Customer and Appointment Tracker application will include many necessary features that are needed within a professional healthcare clinic. These features include a schedule for displaying daily appointments, a way to add new clients, a way to schedule new appointments, and a way to search and view the information of clients that are already in the system. This application will help to keep track of customers and their data, will eliminate overscheduling or scheduling multiple appointments at the same time, and will allow data to be organized without having to sort through manual files.

This application will not include any ability to accept payments, automated email or text message reminders for scheduled appointments, or ways to store credit card information for clients. The main purpose of this application is to track, schedule, and view appointments as well as add and view customer data.

**Intended Audience**

The intended audience for this application is any healthcare clinic that is looking for a digital system to store customer and appointment information. Examples of healthcare clinics include Primary Care Clinics, Specialized Clinics, Hospitals, Urgent Cares, Veterinary Clinics, and Surgical Centers.

Summary

In this System Requirements Document, many key points will be discussed. Under Findings, the functional and non-functional requirements, data requirements, user requirements, system interfaces, and constraints will be discussed. The Recommendations section will include suggestions to better the application and to address any issues or challenges that may occur. The Time and Cost Estimates section will go over the timeline for development, the resource requirements, and the cost estimates for building the application. The Expected Benefits section will include the business goals and the benefits that are expected from implementing the application. The Appendix will include any extra information such as diagrams and supporting documentation.

Findings

**Functional Requirements:**

* The application must provide a schedule for displaying daily appointments.
* It should allow adding new clients with all their information.
* Users should be able to schedule appointments for clients.
* A search functionality must be provided to view client information.

**Non-Functional Requirements:**

* The application should be user-friendly and intuitive.
* It should have fast response times for adding/viewing appointments.
* Security measures should be implemented to protect client data.
* The system should be scalable to accommodate future growth.

**Data Requirements:**

* Customer data such as name, contact information, and medical history.
* Appointment details including date, time, and reason for the visit.

**User Requirements:**

* Healthcare clinic staff should be able to easily navigate and use the application.
* Access levels should be implemented to restrict certain actions to authorized users.

**System Interfaces:**

* The application should have a graphical user interface (GUI) for easy interaction.
* Integration with a database management system for storing and retrieving data.

**Constraints:**

* The application should be developed within a specified time frame and budget.
* Compatibility with existing hardware and software infrastructure of the healthcare clinics.

Recommendations:

* Conduct user testing to gather feedback for improving usability.
* Implement regular updates and maintenance to address any issues or bugs.
* Consider incorporating features for data analytics to track clinic performance.

Time and Cost Estimates

**Development Timeline**

To develop this application, multiple different tasks will need to be completed. A database is needed to store customer information and appointment data. The graphical user interface should include a schedule to view appointments, a page to add new customers to the database, a page to schedule appointments, and a search functionality to view any client that is in the system. The database should take one day to set up, the schedule should take three days, the add client feature should take one day, the schedule appointment feature should take one day, and the search functionality should take two days. In total, the estimate to develop the application should take eight to ten days.

Testing the application should last for seven to ten days. The testing phase will ensure that any incorrect input is handled appropriately and to ensure that the application functions as intended. Any issues that are encountered during this phase should be handled such as certain inputs breaking the application and data not being displayed correctly. Once the testing phase is complete, the application can be deployed and is ready for use.

**Resource Requirements**

The resource requirements for this application include a team of developers and database administrators that can set up the database and graphical user interface. Hardware requirements include PC’s for each team member with Windows 10 or later, an Intel i5 processor or equivalent, at least 8GB of RAM, and at least 100GB HDD or SSD for storage. The software that is used for this application is SQL Server Management Studio for the database and Windows Forms on Visual Studio for the graphical user interface. A server will also be required to store information added to the database.

**Cost Estimat**e

The cost estimate for this application includes salary for the developers and database administrator, server costs, and maintenance costs. The estimated salary for the developers is forty dollars per hour and the estimated salary for the database administrators is thirty five dollars per hour. The estimated cost for the server to store the database is $3,400 per machine per year. The maintenance cost for the application is estimated to be around $300 per month. Using this, the estimated low end cost is $16,920 and the high end cost is $40,280.

Expected Benefits

**Business Goals**

There are many business goals that the Customer and Appointment Tracker application aims to achieve. Employees will be able to complete daily tasks more efficiently as everything is digital rather than manual. They can easily view client information when needed and schedule appointments without worrying about overbooking or overlapping appointments. Appointments will also be able to be scheduled to the individual needs of the clinic as the schedule is easily viewable and openings in the schedule are easily seen.

Customer data can be viewed by searching for the customer name, allowing employees to quickly view necessary details. It is very easy to add new clients to the system should the need arise so that they can schedule appointments and their information can be viewed by employees.

Doctors, nurses, and technicians will be able to plan for their day ahead of time by looking at the schedule and seeing the appointments they have. They can see the reasons for the customers coming in and avoid any confusion. This application will improve the time it takes to schedule appointments and view information, as well as improve work performance by allowing employees to have an application where everything is in the same location.

**Expected Benefits**

The expected benefits of this application are increased efficiency, improved employee and customer satisfaction, and less frustration. This application will help increase efficiency as it has everything that is needed for employees in one spot. They do not have to sort through manual files or worry about having multiple applications open to complete their tasks. Satisfaction on both the employee and customer side will be increased as employees will have an easier time completing their daily tasks and helping customers, and customers will spend less time scheduling appointments and will be able to get what they need quickly. This will help with frustration at work as well as employees will have an easy application to use to do their jobs.

Conclusion

In conclusion, the System Requirements Document includes all of the features that will be included in the application, as well as the requirements. It goes over the cost and time for the application and the benefits that users will receive from the application. This detailed SRD gives an outline of what is to be expected from the Appointment Tracker and Customer Database application.

Appendix

**Use Case**

When using this application, users will be able to complete multiple different tasks. Typically, when using this application, the user will use it to add new clients to the system, schedule appointments for those new clients, search the system for existing clients, and view the schedule for the day to see the appointments that are coming up. These are the tasks that need to be completed daily at most health care clinics and this application will allow users to complete them in a timely manner with little frustration.

**Risk Assessment**

To mitigate risks in this application, exception handling will be used for the user inputs to ensure that the correct inputs are necessary. The schedule will need to be planned out and organized well so users can view the appointments as the correct date, time, and room. Many lists will need to be used so that information is organized and the data on the schedule can be displayed correctly. Along with that, testing will need to be run on the schedule to ensure that the appointments are correctly displayed.