Software Requirements Specification

for

Laundry Management System

Version 1.0 approved

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1. Introduction

1.1 Purpose

We present the design and implementation of a laundry management system used in a laundry establishment. Laundry firms are usually faced with difficulties in keeping detailed records of customers clothing; this little problem as seen to most laundry firms is highly discouraging as customers are filled with disappointments, arising from issues such as customer clothes mix-ups and untimely retrieval of clothes. The aim of this application is to determine the number of clothes collected, in relation to their owners, as this also helps the users fix a date for the collection of their clothes. Also customer's information is secured, as a specific id is allocated per registration to avoid contrasting information.

1.2 Document Conventions

The proposed system for laundry firms plays a vital role in the transition and if effectively implemented, it should be able to: Reduce paper work and redundancy thereby improving productivity and lowering cost of printing and purchasing registration materials annually. It aids the administrative in data management of customers, by allowing the user to search for any customer with ease.

1.3 Intended Audience and Reading Suggestions

The customers and the user can use the application by simply logging in. User interfaces are the registration pages developed for the customers and users to register and manage the items brought.

1.4 Product Scope

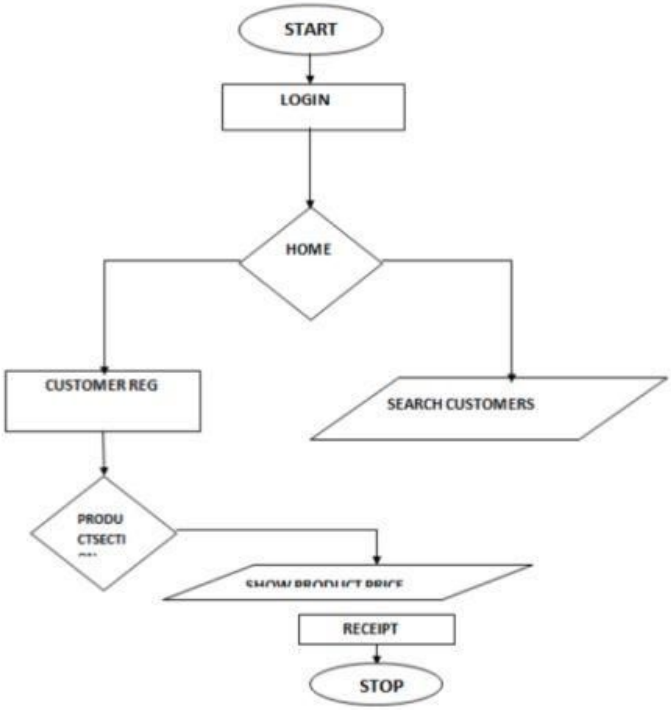
The following scope can be deduced from the development of the project.
1)Automation of the entire system improves the efficiency.
2) It provides a friendly graphical user interface which proves to be better when compared to the existing system.
3)The System has adequate scope modification in future if it is necessary.
4)Updating of information becomes so easier.

2. Overall Description

2.1 Product Perspective

The goal of the laundry management system is to provide a computerized process that is stress free, reliable and quick through the use of asp.net computer programming language and SQL database application to the users and staffs in charge of the registration of customers and laundry
management processes.

2.2 Product Functions



2.3 User Classes and Characteristics

User Requirements is to gain access to the laundry management system resources, the user would need:

a) A personal computer/android device
b) A username
c) A genuine password

User-Interface Requirements

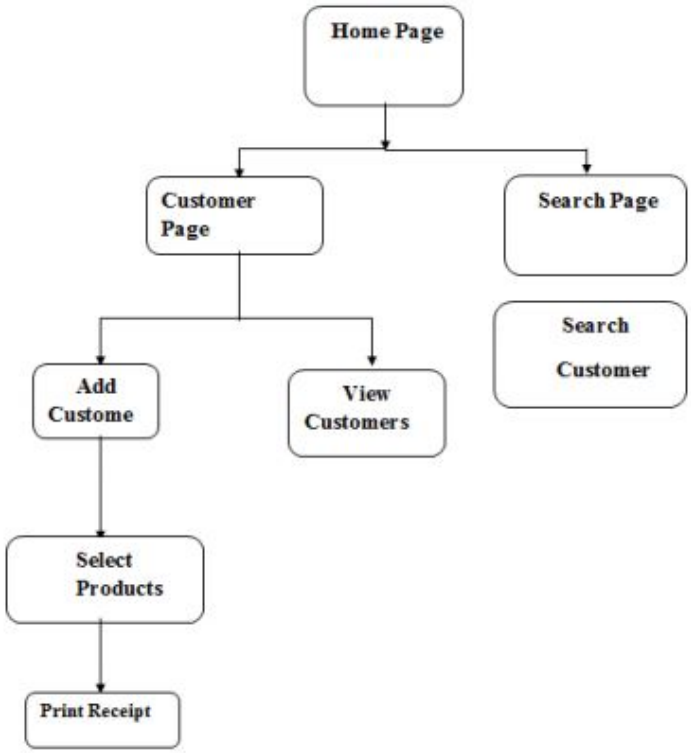
User interfaces are the registration pages developed for the customers and users to register and
manage the items brought. They consist of the following:
a) login page (Username and password)
b) Product page
c) View customers
d) View records
e) Search for customers
f) Register a new user
g) Print Receipt

2.4 Operating Environment

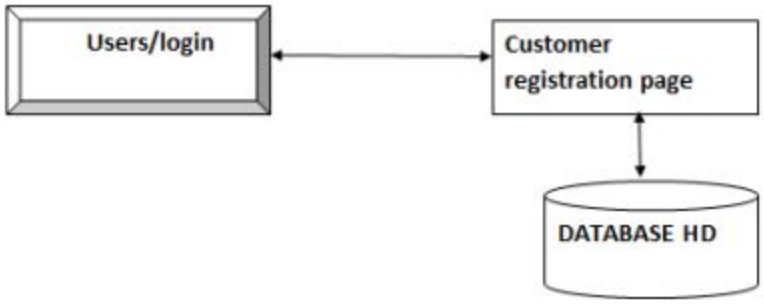
A computer or a smartphone is needed to control and replenish the application.

2.5 Design and Implementation Constraints

Laundry Application Flowchart:



System Design and Architecture:



2.6 User Documentation

Online support and a user manual will be provided to the customers.

2.7 Assumptions and Dependencies

1) 0nline customer will always provide a batch of 10 clothes every time.

2)Customer will wait for at least 6 days for the whole batch to get processed.

3) Customer will willingly provide the required details for confirmation like card details, ID proof, permanent address.

4)Customer may be required to credit advance money(In hand cash) for personal reasons.

5)No loss or damage to the garment will be taken care of after the specific batch has gone through inspection phase.

6)Delivery date may get extended due to weather issues.

3. External Interface Requirements

3.1 User Interfaces

User interfaces are the registration pages developed for the customers and users to register and manage the items brought. They consist of the following:
a) login page (Username and password)
b) Product page
c) View customers
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3.2 Software Interfaces

Graphical User Interface
Hyper-Text Markup Language (HTML)is the basic language used for creating web pages and other information that can be displayed in a web browser. The purpose of a web browser is to read HTML documents and compose them into visible or audible web pages. The browser doesn't display the HTML tags, but uses the tags to interpret the concept of the page.

Hyper-Text Markup Language

HTML elements forms the building blocks of all websites, allows images and objects to be embedded and can to be used to create interactive forms. It provides a means to create structured documents by denoting structural semantics for text such as heading, paragraphs, lists, links, quotes and so on. It can also embed scripts written in languages such as JavaScript which affect the behavior of HTML web pages.
HTML consists of several key components,
including tags and their attributes, character- based data types, character references and entity references. An important component is the document type declaration, which triggers standards mode rendering.

Cascading Style Sheets

CSS is a style sheet language used for describing the look and formatting of a document written in a markup language. While most often used to style web pages and interfaces written in HTML and XHTML, the language can be applied to any kind of XML document, including plain XML, SVG and XUL. CSS is designed basically to enable the separation of document content from document presentation, including elements such as layout, colors and fonts. This improves content accessibility, provides flexibility and control in the specification of presentation characteristics, enable multiple pages to share formatting and reduce complexity and repetition in the structural content, for instance, allowing tableless web design. CSS can also allow the same markup page to be presented in different styles for different rendering methods such as on-screen, in print and on Braille-based, tactile devices. CSS specifies a priority scheme to determine which style rules apply if more than one rule matches against a particular element. Priorities are calculated and assigned to rules, so that the results are predictable.

Client-side Script(JAVASCRIPT)

JavaScript is a new scripting language for Web Pages. Scripts written with java script can be embedded into your HTML pages. With javascript you have many possibilities for enhancing your HTML page with interesting elements. For example you are able to respond to user initiated events quite easily. Some effects that are now possible with javascript were some time ago only possible with CGI. So you can create really sophisticated pages with the helps of java script on the Internet.

SQL(Structured Query Language)

To work with data in a database, you must use a set of commands and statements (language) defined by the DBMS software. There are several different languages that can be used with relational databases; the most common is SQL. Both the American National Standards Institute (ANSI) and the International Standards Organization (ISO) have defined standards for SQL. Most modern DBMS products support the Entry Level of SQL-92, the latest SQL standard (published in 1992).

SQL Server Features

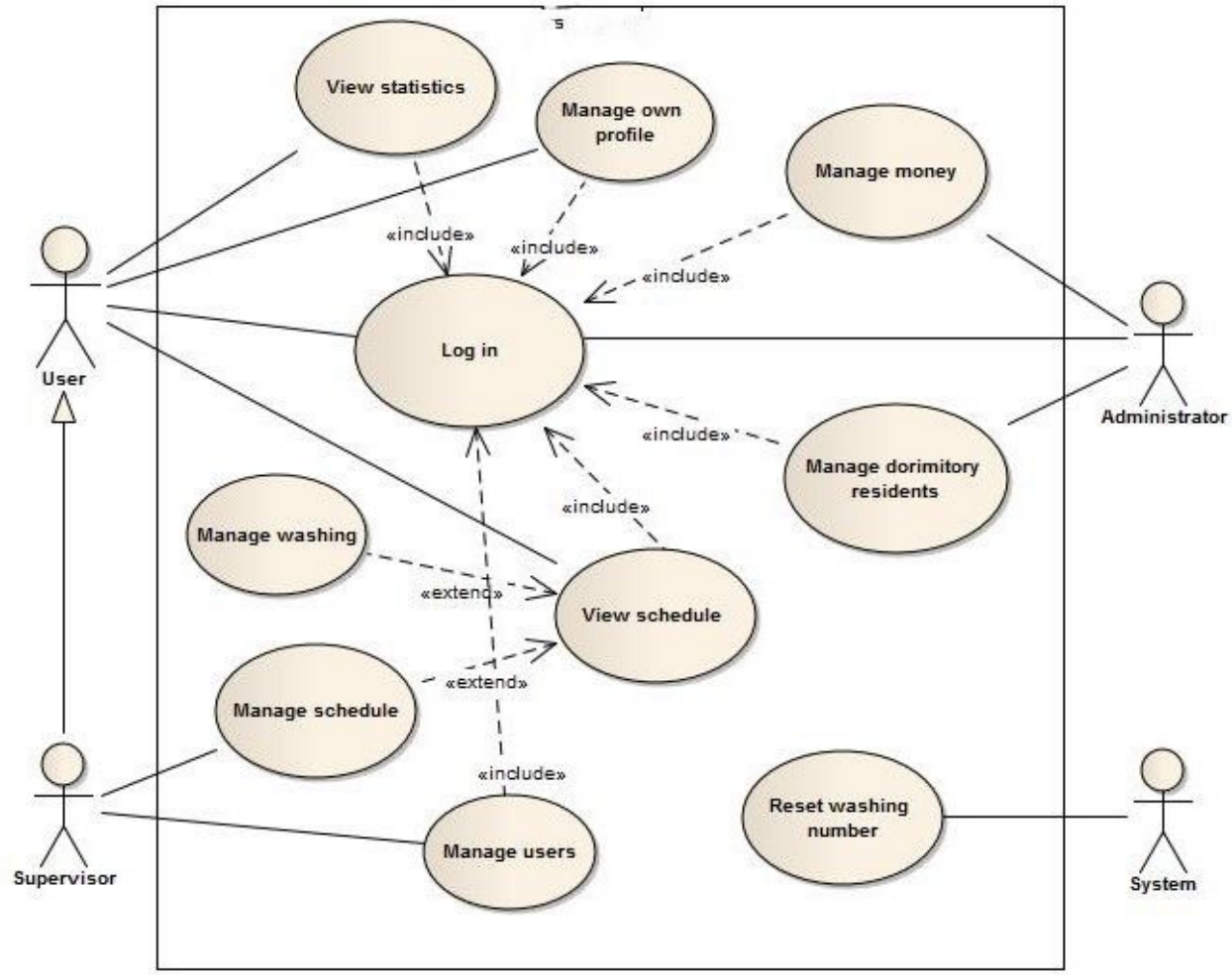
Microsoft SQL Server supports a set of features that result in the following benefits:

1. **Ease of installation, deployment, and use**: SQL Server includes a set of administrative and development tools that improve your ability to install, deploy, manage, and use SQL Server across several sites.
2. **Scalability:** The same database engine can be used across platforms ranging from laptop computers running Microsoft Windows® 95/98 to large, multiprocessor servers running Microsoft Windows NT®, Enterprise Edition.
3. **Data warehousing:** SQL Server includes tools for extracting and analyzing summary data for online analytical processing (OLAP). SQL Server also includes tools for visually designing databases and analyzing data using Englishbased questions.
4. **System integration with other server software:** SQL Server integrates with e-mail, the Internet, and Windows.

3.3 Communications Interfaces

1) Invoice calling
2) Notification via certain media which can accessed by every day users who are smart enough to use a smart device.

4. Use Case Diagram



5. System Features

5.1 Touch Screen Support

Can be accessed from website as well as an android app.

Priority: High
Response Sequence:While managing Wash-basket.(little Animation work)

5.2 Customer Pricing Control

ONLINE PAYMENT available and above Basic-predefined wash or minimum rate(order) allowed, every customer can control price accordingly

Example:: Minimum rate per wash(1 Batch) ---- Rs. x
:: Max No. Of Clothes for 1 batch ---- # Z
::Wash Type ---- Normal
:: Now Price can be managed if more garments are added PER cloth,
:: wash type(Normal, Gentle, Hand-wash) can be altered, etc.
:: Also provision for giving Clothes for Ironing only.

Priority:TBD
Response Sequence: While Managing Bucket Sequence.

5.3 Audit Trail

Accounting,Final Wash-basket order bill and updation to existing premium customer's account. Also get the details of the worker who's in charge of your batch so you can call and instruct.

Priority:TBD
Response Sequence: During Check-out process.

5.4 Customization

Create your own wash-bucket with predefined details :: Pick-up day
:: Regular Wash Details
:: Garment details
:: Drop-by day
:: Set weekly, monthly routine.

Priority:High
Response Sequence:Under allotted section on Dashboard.

5.5 User Access right Control.

Limited access to the system and few privileges.
Examples::Free 2-hour delivery, Free 10 clothes per months after 4 wash, etc.

Priority:TBD
Response Sequence:Based on updated user account details

5.6 Custom Discount rate.

User can here apply coupons and offer codes to avail discounts and privileges.

Priority:TBD
Response Sequence:Before payment procedure, during checkout.

5.7 Rack Management.

Manage your rack or your wash-bucket details like Type of wash, type of detergent, type of ironing, bleaching, Drying technique(flat dry or tumble dry or shade dry or sun dry), fabric conditioners, and many more products.

Priority:TBD
Response Sequence: Before moving to check out section, under rack management on dashboard.

5.8 Drop and Pick Clothes.

Choose a day for pick up and also the delivery date will be informed once batch is out from workshop.

Priority:TBD
Response Sequence:

5.9 End-to-End tracking.

Each phase is tracked and information uploaded to users account where customer can see the track record.

PHASES::Order Placement
::Drop clothes
::Workshop
::Inspection
::Pick up for Delivery
::Scheduled delivery

Priority:TBD
Response Sequence:Under tracking section on dashboard.

6. Other Nonfunctional Requirements

6.1 Performance Requirements

User of this application must have an active internet connection through which they could retrieve or give required information.

6.2 Safety Requirements

User of this application must not share their login credentials with anyone.

6.3 Security Requirements

Application requires to connect to internet and access to use memory of the device. Moreover this application does not require high speed internet and consumes very less data

6.4 Business Rules

There are 2 general users of the application, one is laundry service provider and the others who wish to avail the services of the provider. Service provider can extend their work by taking their orders via this application and their customers can get their work done while sitting at home and avail different offers provided by the service provider.

7. Other benefits supposed to come after installing the technical support:

The package was designed in such a way that future modifications can be done easily.
The following conclusion can be deduced from the development of the project.
Automation of the entire system improves the efficiency.

1. It provides a friendly graphical user interface which proves to be better when compared to the existing system.
2. It provides a friendly graphical user interface which proves to be better when compared to the existing system.
3. It gives appropriate access to the authorized users depending on their permissions.
4. It effectively overcomes the delay in communications.
5. Updating of information becomes so easier.
6. System security, data security and reliability are the striking features.
7. The System has adequate scope for modification in future if it is necessary.