***Project Name: online Library***

***Software Requirements Specification***

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***Prepared for OOAD Project***

* **Clickup:**

[**https://app.clickup.com/37203376/v/b/li/163235562?pr=55204935**](file:///D:\%09https:\app.clickup.com\37203376\v\b\li\163235562%3fpr=55204935)

* **Github:**

[https://github.com/osamasheikh006/Library-Management-System](file:///D:\%09https:\github.com\osamasheikh006\Library-Management-System)

* **Domin Link:**

[http://osamasheikh-001-site1.etempurl.com/](file:///D:\%09%09%09%09http:\osamasheikh-001-site1.etempurl.com\)

# Revision History

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| **Date** | **Description** | **Author** | **Comments** |
| 4-1-2022 | Version 1 | HSM OSAMA | <First Revision> |
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# Document Approval

The following Software Requirements Specification has been accepted and approved by the following:

|  |  |  |  |
| --- | --- | --- | --- |
| **Signature** | **Printed Name** | **Title** | **Date** |
|  | HSM OSAMA | ONLINE LIBRARY | 4-1-2022 |
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# 1. Introduction

## *A library is a collection of materials, books or media that are easily accessible for use and not just for display purposes. It is responsible for housing updated information in order to meet the user's needs on a daily basis. A library provides physical (hard copies documents).In this user can easliy enter through the id and send request to take book.*

## Purpose*.*

The motivation is to provide complete solutions for customers as well as administrators through a single platform using the internet as a sole medium for empowering the customers to purchase online products.

## 1.2 Scope

* The scope of Online Library Management System includes:
* Create distinct product users based on their roles and permissions.
* Authenticate users at their login.
* Provide the list of books the users can borrow.
* Facility to reserve books that are available.
* A status page for all users to view books reserved by them.
* Facility to cancel the reservation for a book made earlier.
* A status page for all users to view books borrowed by them, their individual due dates and their individual penalties if any.
* An interface to view and edit the own profile.
* Provide method for adjusting account settings such as passwords.
* Mechanism to reset the password in case user forgets it.
* Providing interface to add or delete books to staffs.

1.3 Definitions, Acronyms, and Abbreviations

## Acronyms:

An acronym, technically, must spell out another word. This is a good point of reference to help you distinguish between abbreviations and acronyms. Another good way to differentiate them is that acronyms don't just shorten words, they often simplify a long organization name, scientific term or idea.

**Abbreviations:**

Abbreviations and acronyms are often interchanged, yet the two are quite distinct. The main point of reference is that abbreviations are merely a series of letters while acronyms form new words.

Each one allows writers to make large blocks of text easier to read. Beware that both abbreviations and acronyms are typically considered informal and should be carefully considered before including them in more formal writings

## 1.4 References

[*http://osamasheikh-001-site1.etempurl.com/.*](http://osamasheikh-001-site1.etempurl.com/)

## 1.5 Overview

*Library is at the disposal of users that facilitate access of information by just push of a button. Information sources is digitised, compressed and stored in textual/numeric, audio, vedio,graphic form. Time saving device for user community Computer assisted search Geographically distributed creating the concept of world as a global village Alerts users based on their subject interests..*

# 2. General Description

*The Library/Information Centre has to overcome the inhibitions and look ahead for the betterment of information services to the user community by successfully adopting the digital technology-the need of the hour & keep pace with world. It seems that the days may not far when the whole world would have digital libraries interconnecting all libraries to meet the academic and research needs within the short time.*

## 2.1 Product Perspective

* Increase logic
* Improve reading Skill
* Easy to take book
* Time wasting degress

## 2.2 Product Functions

* Admin panal
* User panal
* User reserve book
* Admin aprove book
* Fine
* Stock limit book

## 2.3 User Characteristics

* Catalog books for inclusion in the online catalog
* Acquisitions used to track and monitor purchases of materials both physical and electronic
* Serials used to track and monitor subscriptions of magazines, journals, etc., this one also tracks each “piece” as it is received - some allow cataloging at this time, other go to cataloging
* Interlibrary Loan, the process of getting materials for library patrons from other libraries. It is a “two way” deal, each library that borrows, also loans
* Circulation, the process of checking materials in and out of the library for patrons. It also keeps track of due dates, fines if levied by the library, and serves as a listing of patrons who have access to the library.

## 2.4 General Constraints

Use in database key are the following:

* *NOT NULL Constraint*
* *DEFAULT Constrain*
* *PRIMARY Key*
* *FOREIGN Key*

## 2.5 Assumptions and Dependencies

.

# 3. Specific Requirements

## 3.1 External Interface Requirements

### 3.1.1 User InterfacesGraphical user interface, application Description automatically generated

![Graphical user interface, application

Description automatically generated]()![Graphical user interface, text, application

Description automatically generated]()

### 3.1.2 Hardware Interfaces

Various interfaces for the product could be:

1. Monitor

2. Keypad

3. Mouse

4. A connection to the library database

Various interfaces for the product could be:

1. Monitor

2. Keypad

3. Mouse

4. A connection to the library database

* Mouse
* Keyboard
* Moniter

### 3.1.3 Software Interfaces

*• MS-Sql Database*

*• Asp.Net Mvc Entity Framework*

*• .Net C#*

### 3.1.4 Communications Interfaces

## *The communications standards that will be used is GUI (Graphical user interface). This interface m ust be highly intuitive or interactive because there will not be an assistance for the user who is opera ting the system.The interface is designed to be very user-friendly so anyone with a very little knowledge of the computers can also operate the system.Also, the password should be private, this can be by using asterisks at the password panel*

## *.* 3.2 Functional Requirements

### *The main function of Library is to determine the sufficient amount and type of input products, products in process and finished products, facilitating production and operations and minimizing costs by keeping them at an optimal level.*

### 3.2.1 <Functional Requirement or Feature #1>

3.2.1.1 Introduction

3.2.1.2 Inputs

3.2.1.3 Processing

3.2.1.5 Error Handling

…

## 3.3 Use Cases

Diagram

Description automatically generated

…

## 

## 3.4 Classes / Objects

A screenshot of a computer

Description automatically generated with medium confidence

…

## 3.5 Non-Functional Requirements

Non-functional requirements may exist for the following attributes. Often these requirements must be achieved at a system-wide level rather than at a unit level. State the requirements in the following sections in measurable terms (e.g., 95% of transaction shall be processed in less than a second, system downtime may not exceed 1 minute per day, > 30 day MTBF value, etc).

### 3.5.1 Performance

### 3.5.2 Reliability

### 3.5.3 Availability

### 3.5.4 Security

### 3.5.5 Maintainability

### 3.5.6 Portability

## 3.6 Inverse Requirements

State any \*useful\* inverse requirements.

## 4.1 Sequence Diagrams

Diagram

Description automatically generated

## 4.3 Data Flow Diagrams (DFD)

Diagram

Description automatically generated

## 4.2 State-Transition Diagrams (STD)

A picture containing diagram

Description automatically generated

# 5. Change Management Process

Identify and describe the process that will be used to update the SRS, as needed, when project scope or requirements change. Who can submit changes and by what means, and how will these changes be approved.

# A. Appendices

Appendices may be used to provide additional (and hopefully helpful) information. If present, the SRS should explicitly state whether the information contained within an appendix is to be considered as a part of the SRS’s overall set of requirements.

*Example Appendices could include (initial) conceptual documents for the software project, marketing materials, minutes of meetings with the customer(s), etc.*

## A.1 Appendix 1

## A.2 Appendix 2