UNIVERSITY OF GREENWICH

COMP1682 – Final Year Project

Project Proposal

DEVELOPING ELECTRONIC LIBRARY

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DEVELOPING ELECTRONIC LIBRARY
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Project Proposal
COMP1682

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1. Overview

Barack Obama once said, "Reading is important. If you know how to read then the whole world opens up to you.". Indeed, books have served as a repository for important knowledge since the beginning of time for subsequent generations to study and use. The book also includes human qualities that are both material and spiritual, as well as incidents from people's lives and their opinions. Each book introduces readers to a distinct subject and area to provide them with more chances to increase their knowledge. It is not an overstatement to argue that human civilization is becoming more and more advanced as a result of books and reading books (Waxler, 2017).

We do occasionally desire to read any book, nonetheless. When we scatter it about, we have trouble finding it. Additionally, it's hard to bring numerous books with us when we go out. It will be difficult to read just one of them because of this. Electronic libraries are being developed to address this issue. These days, we can't live without our smartphones or laptops. Consequently, we can read any book wherever. When traveling, enjoying coffee, or going out, it is quite convenient.

Keywords: e book, e library, read book online.

2. Aim

An electronic library with the name Tesla is an application developed to help people read books anywhere, any type of book, any genre.

This e-library software has many functions. Below is a diagram of the software's functions:
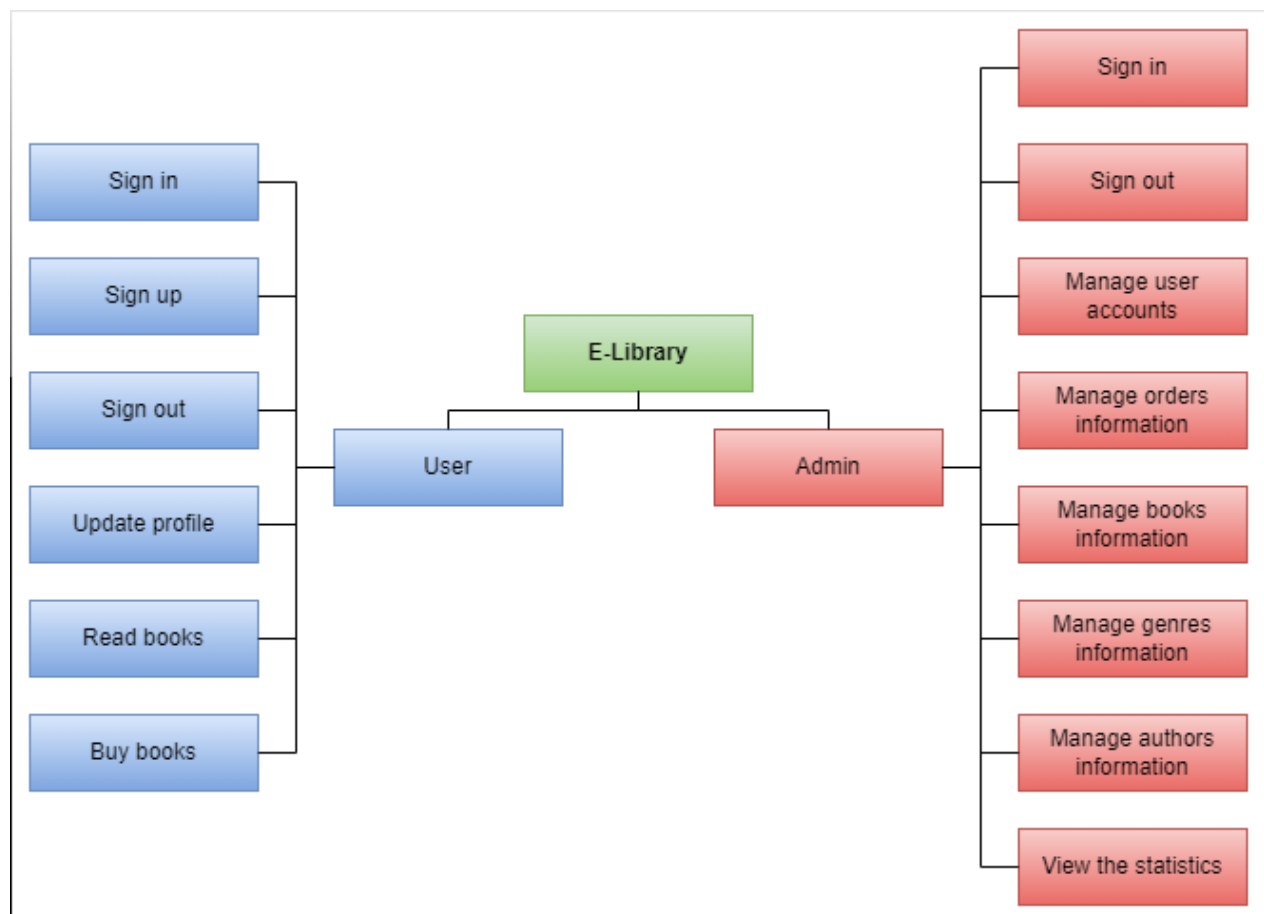

Figure 1. The diagram of the software's functions

Below is a table describing the functions of the software:

Table 1. The table describing the functions of the software

Role	Function	Description
User and admin	Sign in	Users and administrators can use registered accounts to log in to the system.
	Sign out	Users and administrators can log out of their accounts after logging out of the system.
User	Sign up	Users can register an account to log in to the system.
	Update Profile	Users can update their personal information.
	Read books	Users can read any book in the system.
	Buy books	Users can buy any book in the system.
Admin	Manage user accounts	Administrators can manage the accounts that the user had registered.
	Manage orders information	Administrators can manage orders that users had ordered.
	Manage books information	Administrators can manage books (add, edit, delete).
	Manage genres information	Administrators can manage genres (add, edit, delete).
	Manage authors information	Administrators can manage authors (add, edit, delete).
	View the statistics	Administrators can view relevant statistics (number of books ordered, number of accounts registered, ...).

3. Objectives

3.1. Analysis of the software requirement

Activities: Based on requirements to analyze the intended functions of the system (including functional and non-functional requirements). System database analysis.

Deliverables: The section for the report. 500- 1000 words.

3.2. Develop front-end based on the requirement

Activities: Visual design of the software's auxiliary components. Create the UI for users. Create the UI for admin. Create and pick useful interfaces. Test the interfaces (including the user and admin interface).

Deliverables: The section for the report. Max 2000 words.

3.3. Develop back-end

Activities: Link on interface pages. Design each interaction event. Test links and events. Create and connect the database. Test the database connection.

Deliverables: The section for the report. Max 2000 words.

3.4. Test the whole system

Activities: Test the whole system. Fix any issues (if any).

Deliverables: The section for the report. 500 - 1000 words.

3.5. Closing project

Activities: Write a proposal project. Demo the software. Write a final report.

Deliverables: The section for the report. 3000 - 5000 words.

4. Legal, Social, Ethical, and Professional issues

This program doesn't include any ethical, social, or legal problems. User personal information kept in the database will not be leaked or sold to any person or organization while being controlled by a highly secure database. The graphics and logos used in this program are free from immoral or unethical activity and do not promote such things. Users will find it straightforward, natural, and colorful to use thanks to the interface's design.

5. Framework or Any Methodology used

The <u>Waterfall SDLC model</u> moves step by step through the phases of analysis, projecting, realization, testing, implementation, and support to show the development process as a flow. The SDLC paradigm involves stage-by-stage execution. With a waterfall, strict documentation is implied. Each step of this SDLC model includes specific features that are required of it (Kama, 2020).
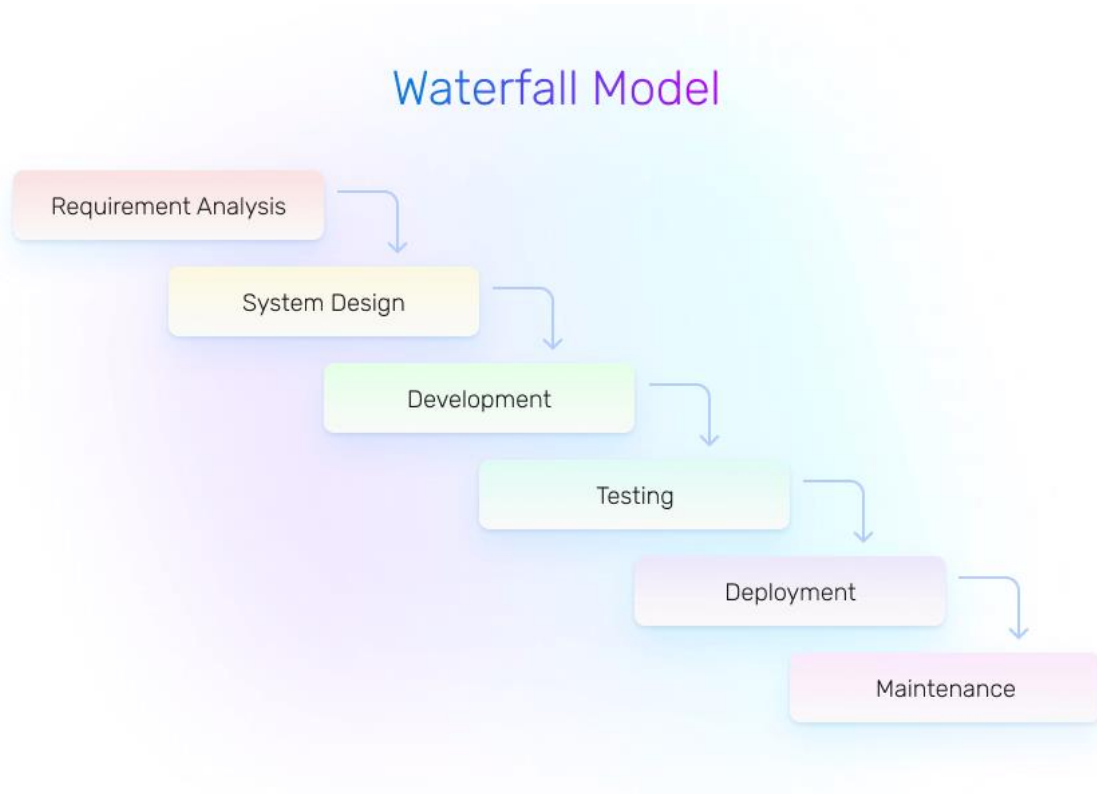
Figure 2. Waterfall SDLC model[1]

According to the image above, the process is shown to consist of several phases, each of which has a set of tasks that may be completed by different people. The output from each phase acts as the input for the phase that follows it (Agarwal, 2007).

The waterfall model is used in software development because it makes it easier to manage the activities and phases more systematically, preventing phase mistakes.

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[1] : https://existek.com/blog/sdlc-models/

6. Planning

TITLE	START	FINISH	DURATION
DEVELOPING ELECTRONIC LIBRARY	**2022-09-01**	**2023-04-29**	**241 days**
Analysis of the software requirement	**2022-09-01**	**2022-09-07**	**7 days**
Analysis of software functions	2022-09-01	2022-09-03	3 days
Database analysis	2022-09-05	2022-09-07	3 days
Develop front-end based on the requirement	**2022-09-08**	**2022-12-19**	**103 days**
Learn about ReactJS language and framework	2022-09-08	2022-10-08	31 days
Design user interface	2022-10-10	2022-11-10	32 days
Test user interface	2022-11-11	2022-11-14	4 days
Design admin interface	2022-11-15	2022-12-15	31 days
Test admin interface	2022-12-16	2022-12-19	4 days
Develop back-end	**2022-12-20**	**2023-02-18**	**61 days**
Link on interface pages	2022-12-20	2022-12-24	5 days
Design each interaction event	2022-12-26	2023-01-05	11 days
Test links and events	2023-01-06	2023-01-10	5 days
Create and connect database	2023-01-11	2023-02-11	32 days
Test the database connection	2023-02-13	2023-02-18	6 days
Test the whole system	**2023-02-20**	**2023-03-06**	**15 days**
Test the whole system	2023-02-20	2023-02-24	5 days
Fix any issues (if any)	2023-02-25	2023-03-06	10 days
Closing project	**2022-09-01**	**2023-03-29**	**210 days**
Write a proposal project	2022-09-01	2022-11-29	90 days
Write final report	2022-12-01	2023-03-28	118 days
Demo the software	2023-03-29	2023-03-29	1 days

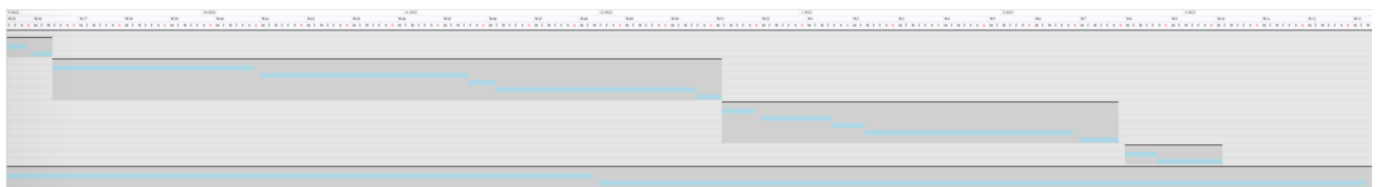*Figure 3. Gantt chart part 1*

Figure 4. Gantt chart part 2

7. References

Agarwal, B. B., 2007. *Software Engineering.* 1st ed. USA: Firewall Media.

Kama, B. a. M., 2020. *Software Requirement Change Effort Estimation.* 1st ed. G1, Dream Apartment, Degree College Rd, Belghoria, West Bengal 700056, India: Exceller Books.

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