



Dr. Vishwanath Karad

**MIT WORLD PEACE
UNIVERSITY** | PUNE

TECHNOLOGY, RESEARCH, SOCIAL INNOVATION & PARTNERSHIPS

A

MINI PROJECT REPORT

On

“Reader space”

SUBMITTED BY

ABDUL TAYYEB (1132190324)

DEEPAK KUMAR (1132190033)

RONAK GOHIL (1132190377)

IN PARTIAL FULFILLMENT OF MASTER OF COMPUTER

APPLICATIONS (MCA)

THROUGH

FACULTY OF SCIENCE

SCHOOL OF COMPUTER SCIENCE

2020-2021

TO DR. VISHWANATH KARAD MIT- World Peace University

CERTIFICATE

This is to certify that Mr. / Ms. / Mrs. Abdul Tayyeb

Of **MIT-WPU School of Computer Science** has successfully completed the Mini project work titled

“Reader space”

In partial fulfilment of requirement of the award of **MCA** prescribed by the **MIT World Peace University, Pune.**

This project is the record of authentic work carried out by him / her out during the academic year **2020-2021**

Dr. Anuradha Kanade
Internal Project Guide
Faculty of Science

Dr. Rajeshree khande
AHOS
School of Computer
Science

Dr. C. H. Patil
Head of
School Faculty
of Science

Dr. Shubhalaxmi Joshi
Associate
Dean Faculty
of Science

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Authorized signature with stamp

DECLARATION

I, Mr./Ms./Mrs. . Abdul tayyeb hereby declare that this project is the record of authentic work carried out by me during the academic year **2020-2021**. This project is **plagiarism-free** and has not been submitted to any other university or institute toward the award of any degree.

Signature of the student

(Abdul tayyeb)

PRN No: 1132190324

DECLARATION

I, Mr./Ms./Mrs. . Deepak Kumar hereby declare that this project is the record of authentic work carried out by me during the academic year **2020-2021**. This project is **plagiarism-free** and has not been submitted to any other university or institute toward the award of any degree.

Signature of the student

(Deepak Kumar)

PRN No: 1132190033

DECLARATION

I, Mr./Ms./Mrs. . **Ronak Gohil** hereby declare that this project is the record of authentic work carried out by me during the academic year **2020-2021**. This project is **plagiarism-free** and has not been submitted to any other university or institute towards the award of any degree.

Signature of the student

(Ronak Gohil)

PRN No: 1132190377

ACKNOWLEDGMENT

In the accomplishment of this project successfully, many people have best owned upon me their blessings and the heart pledged support, this time I am utilizing to thank all the people who have been concerned with project.

The success and final outcome of this project required a lot of guidance and assistance from many people and I am extremely privileged to have got this all along the completion of my project. All that I have done is only due to such supervision and assistance.

My sincere thanks also goes to **Dr. C.H. Patil** for supporting the Mini Project from the college in this pandemic situation.

I owe my deep gratitude to our Mini project guide **Dr. Anuradha Kanade** who took keen interest on our project work and guided us all along, till the completion of our project work by providing all the necessary information.

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Introduction

1.1 Problem Statement

- The world of literature is booming. Through the internet, millions of books are made available to readers.
- These evolutions in the literature confused the readers that which book is most relevant with their interests.
- That's why a common platform is necessary through which the readers can see thousands of books as well as a short description. Also, users can see the reviews given by other readers and can provide their own opinion to the books which they have read.

1.2 Proposed System

The proposed system is a globalized website that contains reviews of new books. It will also help the user to know the book details and review of the books given by the users who have already read the book.

1.3 Product Description

- Reader Space is an online book review website which facilitates the reader to browse the books and check the book detail such as title, description, author name, etc. Also, the user will be able to give the review of the book which the user has already read.
- The system also provides REST API for the developers containing data of book and user review etc. The proposed system is a globalized-website that contains reviews of new books.
- It will also help the user to know the book details and review of the books given by the users who have already read the book.

1.4 Scope of Work

Scope of this project is very broad in terms of other manually checking yourself. Few of them are :-

- The main purpose of this project is to provide a platform for the readers to help them find the perfect book for their next reading journey.
- The API from Goodreads makes it a more powerful platform to get to know about the user's opinion on the book by having data like average ratings and total ratings.
- This Project also provides a facility to user for giving there reviews and rating on a particular book.
- Along with the ratings from Goodreads the user will also be able to see the reviews of other users of the system.
- The system is fully responsive keeping into the mind of various device compatibility. It is a Web-based application so can be accessed by any browser.
- For the developer community, this system also provides a REST API available for everyone.
- Bulk insertion is also made possible through CSV file.

1.5 Operating Environment

Hardware Requirements :

- **Processor:** Intel Pentium and above
- **RAM:** 1GB and above
- **HDD:** 64GB and above

Software Requirements :

- **Web Browser :** Google Chrome, Mozilla Firefox
- **OS:** Windows, Linux, MacOS
- **Database:** PostgreSQL

Tools and Environment :

- **Front-End:** Html 5, SASS, Bootstrap 4, jQuery
- **Back End :** Python
- **Framework :** Flask
- **Library :** SQL Alchemy
- **Web Server :** Flask
- **Database Server :** Heroku_Postgres

1.6 Description of Technology Used

Python

- Python is a general-purpose interpreted, interactive, object-oriented, and high-level programming language. It was created by Guido van Rossum during 1985- 1990. Like Perl, Python source code is also available under the GNU General Public License (GPL). This tutorial gives enough understanding on Python programming language.

Flask

- Flask is a web application framework written in Python. It is developed by **Armin Ronacher**, who leads an international group of Python enthusiasts named Pocco. Flask is based on the Werkzeug WSGI toolkit and Jinja2 template engine.

SQLAlchemy

- SQLAlchemy is a popular SQL toolkit and Object Relational Mapper. It is written in Python and gives full power and flexibility of SQL to an application developer. It is an open source and cross-platform software released under MIT license. SQLAlchemy is famous for its object-relational mapper (ORM), using which classes can be mapped to the database, thereby allowing the object model and database schema to develop in a cleanly decoupled way from the beginning.

HTML

- Hypertext Markup Language (HTML) is the standard markup language for creating web pages and web applications. With Cascading Style Sheets (CSS) and JavaScript, it forms a triad of cornerstone technologies for the World Wide Web.
- Web browsers receive HTML documents from a web server or from local storage and render the documents into multimedia web pages. HTML describes the structure of a web page semantically and originally included cues for the appearance of the document.

SASS

- SASS (Syntactically Awesome Stylesheet) is a CSS pre-processor, which helps to reduce repetition with CSS and saves time. It is more stable and powerful CSS extension language that describes the style of a document cleanly and structurally.
- It was initially designed by Hampton Catlin and developed by Natalie Weizenbaum in 2006. Later, Weizenbaum and Chris Eppstein used its initial version to extend the Sass with SassScript.

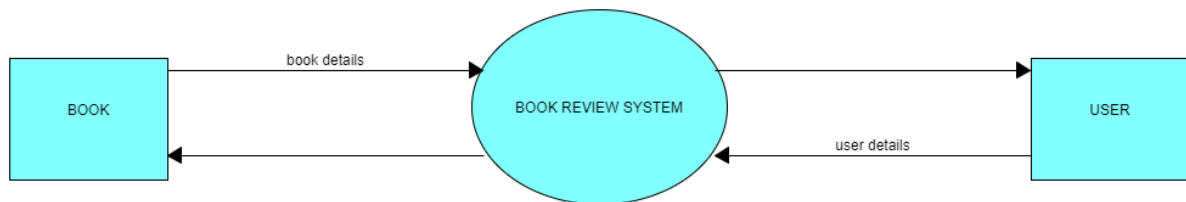
Postgres

- PostgreSQL is a powerful, open source object-relational database system. It has more than 15 years of active development phase and a proven architecture that has earned it a strong reputation for reliability, data integrity, and correctness.

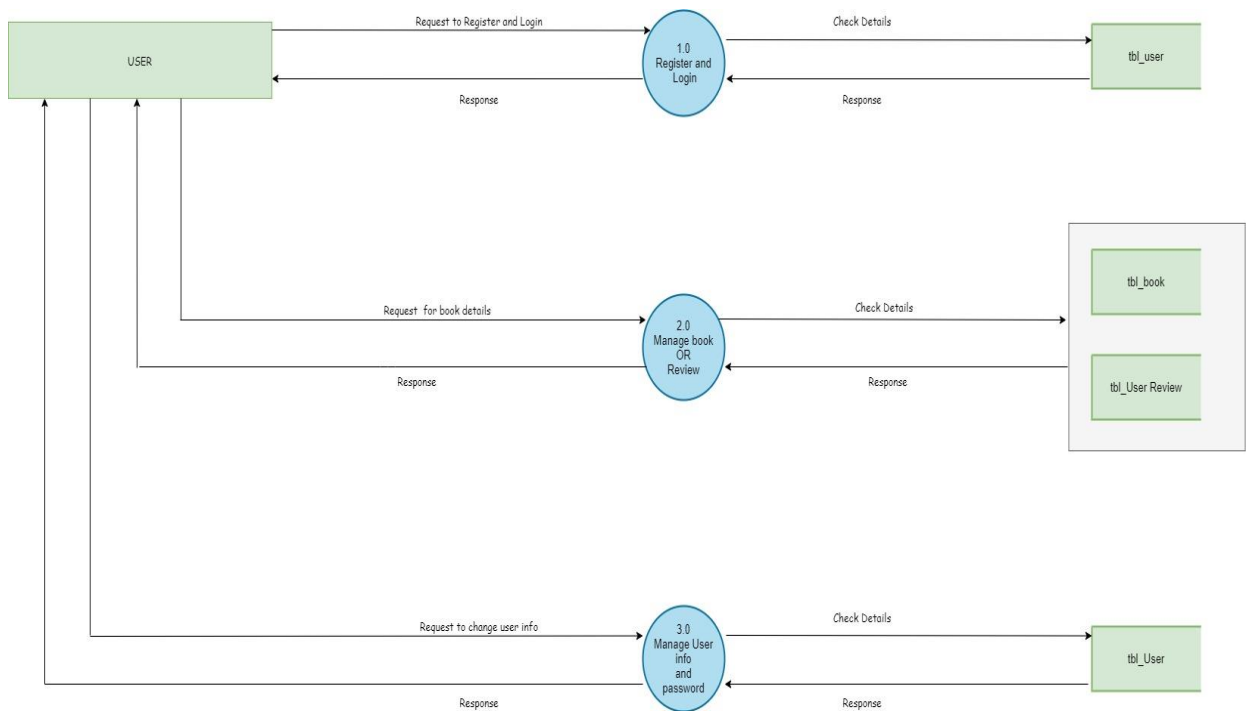
2. Analysis of the system

2.1 Data Flow Diagram (DFD)

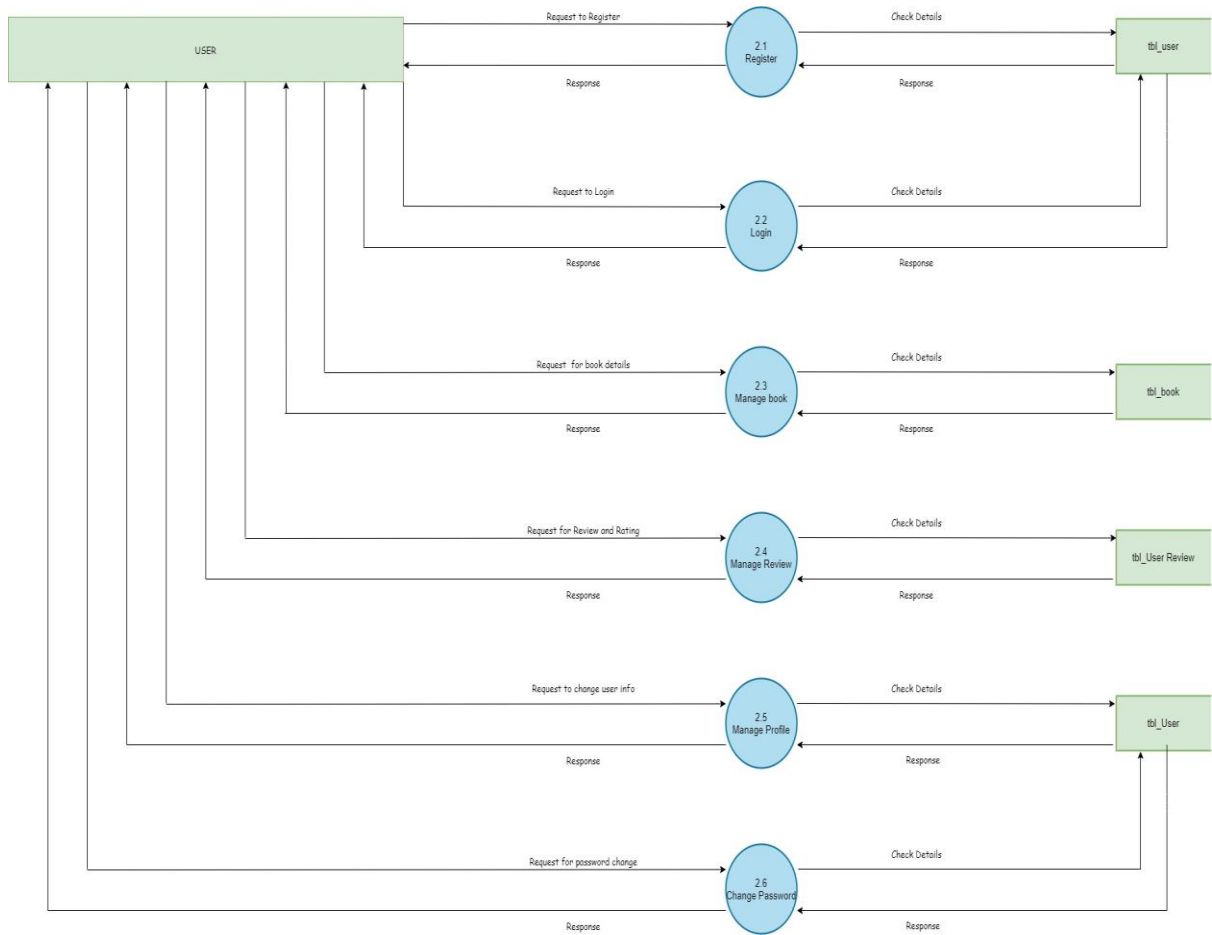
Context Level Data Flow Diagram (DFD)



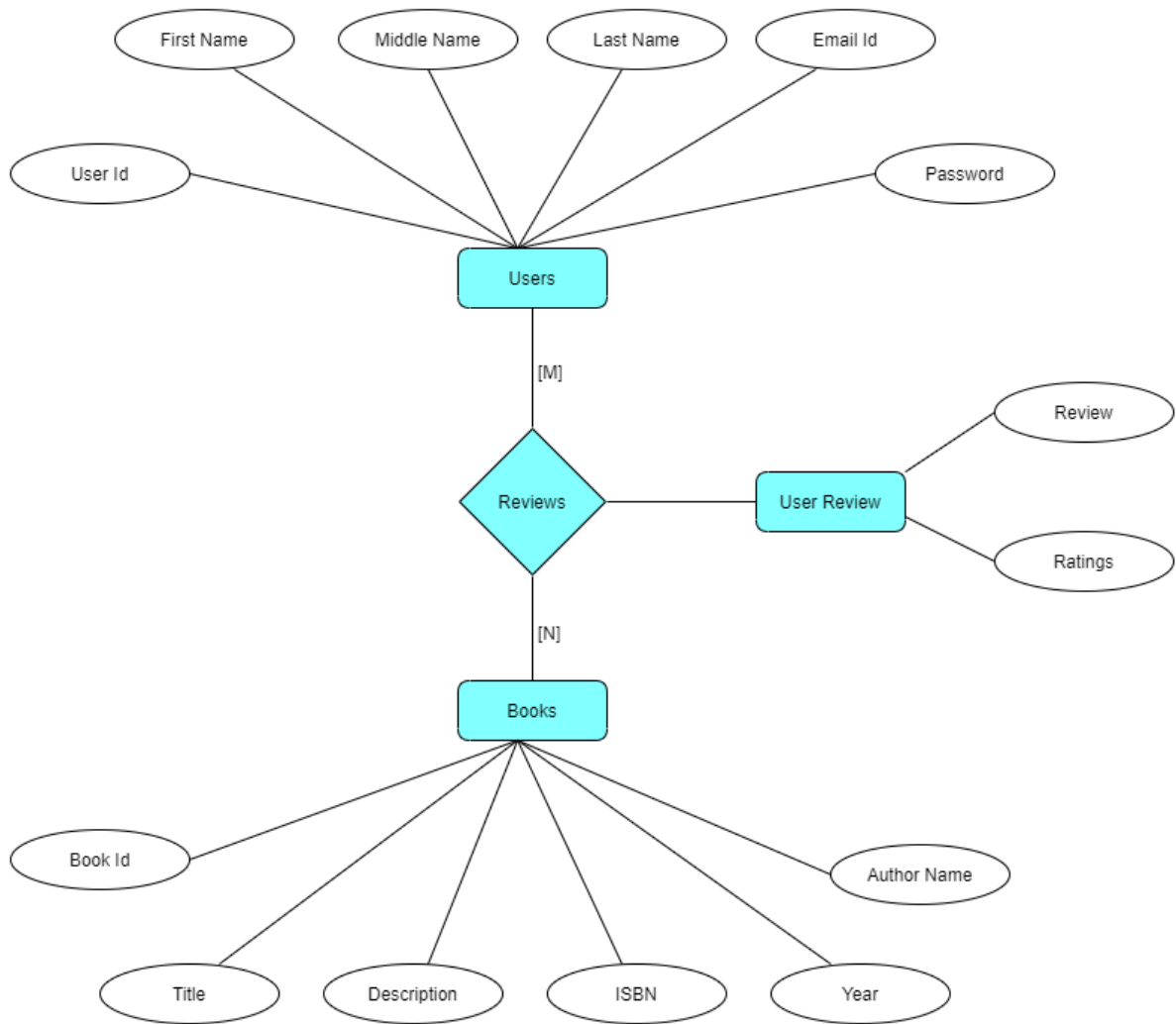
First Level Data Flow Diagram (DFD)



Second Level Data Flow Diagram (DFD)

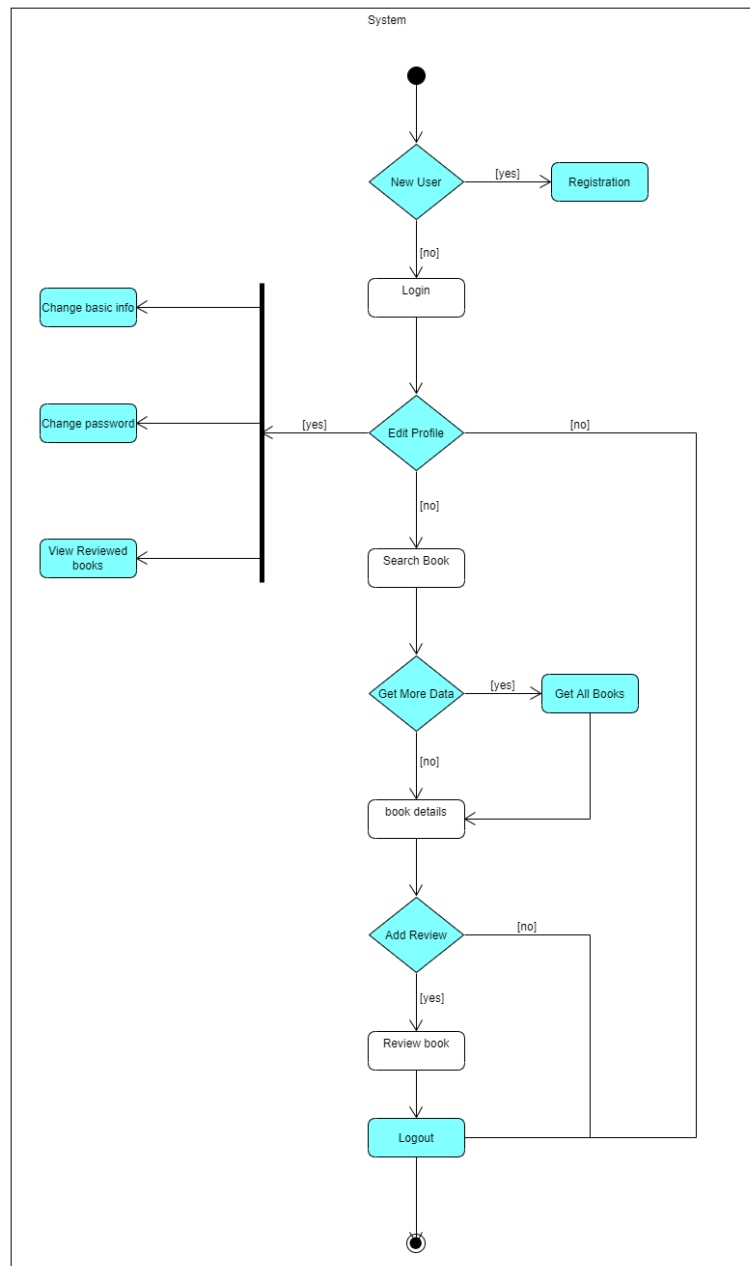


2.2 ER Diagram



Design

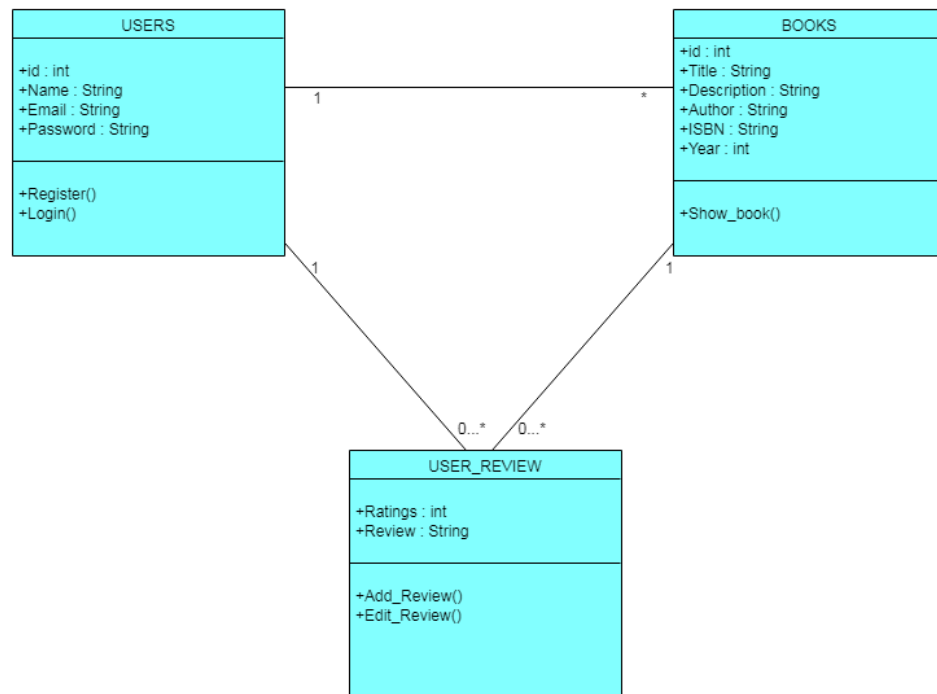
2.3 Activity Diagram



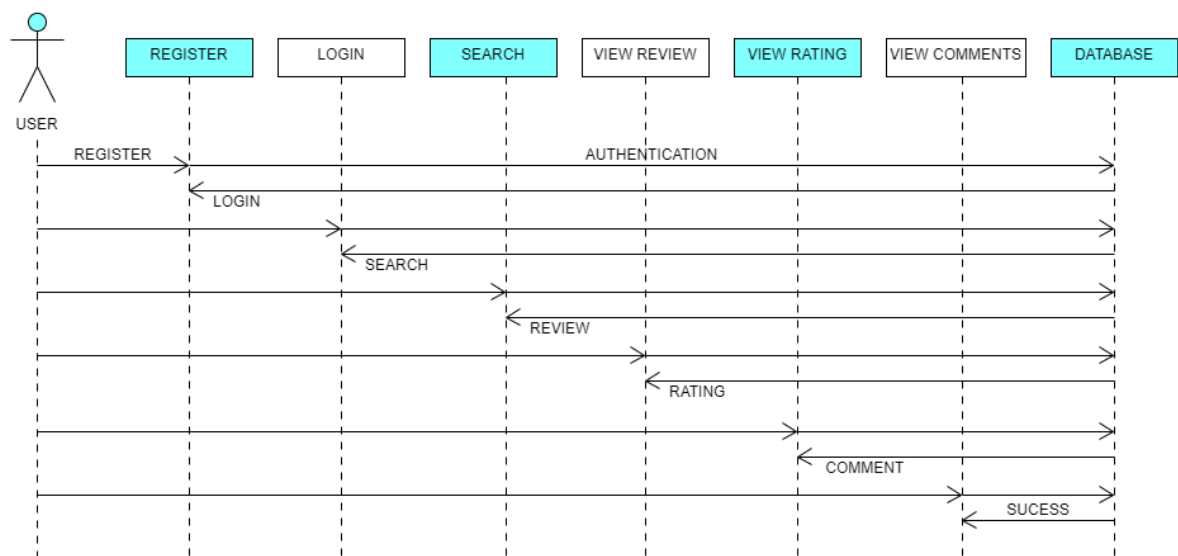
2.4 Use Case Diagram




2.5 Class Diagram



2.6 Sequence Diagram



Signup



Register

Your Name *

E-mail *


Password *

Confirm Password *

Create Account

[Already have an Account?](#) [Sign In](#)

Sign In



Sign In

E-mail

Password

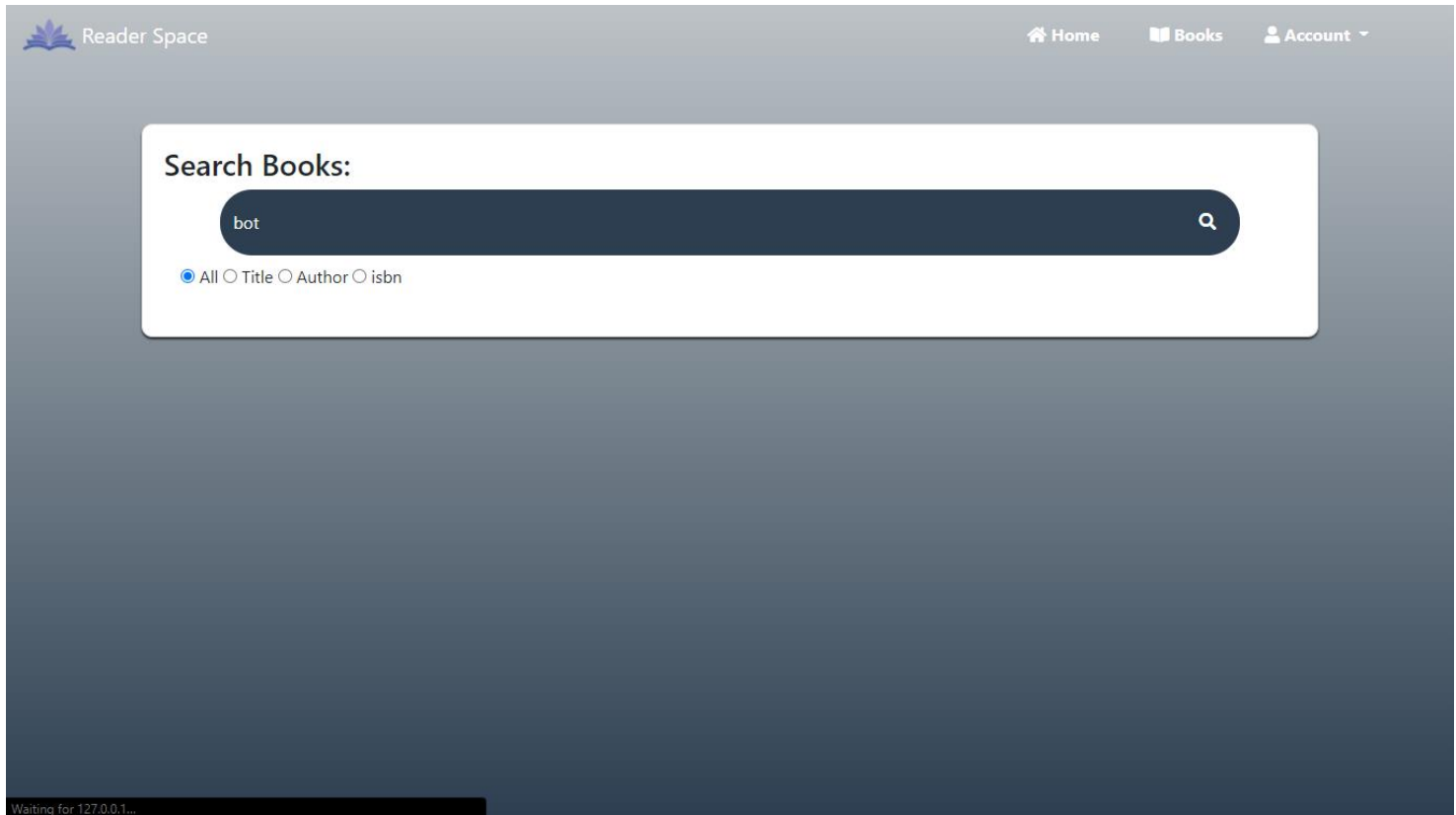
☐ Remember Me [forgot password?](#)

Sign In


New to Reader Space ?


Create your account

Home Page



Profile Page

 Reader Space






[Home](#) [Books](#) [Account](#) 

Abduttayyeb Lohawala
tayyeb5252@gmail.com

[Edit Profile](#) [Change Password](#)






Your Reviews

The Dark Is Rising
by Susan Cooper in year 1973



your ratings

Krondor: The Betrayal
by Raymond E. Feist in year 1998



your ratings

Edit Profile

The image shows a web application interface with a dark theme. At the top, there is a navigation bar with the 'Reader Space' logo and links for 'Home', 'Books', and 'Account'. The main content area displays a user profile for 'Abduttayyeb' with the email 'tayyeb5252@gmail.com'. An 'Edit Profile' button is visible. A modal window titled 'Edit Profile' is open, containing four input fields: 'Firstname*' (filled with 'Abduttayyeb'), 'Middlename' (placeholder 'Middle Name(optional)'), 'lastname*' (filled with 'Bohra'), and 'Email*' (filled with 'tayyeb5252@gmail.com'). An orange 'Update' button is at the bottom of the modal. The background shows book reviews, including 'The Dark Is' by Susan Cooper and 'Kronador: Th' by Raymond E. Feist, each with a three-star rating.

Reader Space

Home Books Account

Abduttayyeb
tayyeb5252@gmail.com

Edit Profile

Edit Profile ×

Firstname*
Abduttayyeb

Middlename
Middle Name(optional)

lastname*
Bohra

Email*
tayyeb5252@gmail.com

Update

Your Review


The Dark Is
by Susan Cooper
★ ★ ★

Kronador: Th
by Raymond E. Feist
★ ★ ★

your ratings

your ratings

Change Password

 Reader Space

[Home](#) [Books](#) [Account](#)

Abduttayyeb Bohra
tayyeb5252@gmail.com
[Edit Profile](#) [Change Password](#)

Your Reviews

The Dark Is
by Susan Cooper
★★★★★
your ratings

Krondor: Th
by Raymond E. Feist
★★★★★
your ratings

Change Password

Old Password*

.....

New Password*


.....

Confirm Password*

.....


Update

Search Result

 Reader Space

HomeBooksAccount

Search Books:


Search...

☒ All ☐ Title ☐ Author ☐ isbn

<u>I, Robot</u> <u>by Isaac Asimov in 1950</u>
Teen Idol by Meg Cabot in 2004
Princess in the Spotlight by Meg Cabot in 2001
Insatiable by Meg Cabot in 2010
Party Princess by Meg Cabot in 2006
See all results for "bot"


127.0.0.1:5000/bookdetail/0553803700

Book Page

 Reader Space

HomeBooksAccount






Search Books:


Search...

☒ All ☐ Title ☐ Author ☐ isbn

Krondor: The Betrayal

by Raymond E. Feist in year 1998









 (3.86) (13964) Total ratings

ratings from goodreads

The Dark Is Rising

by Susan Cooper in year 1973









 (4.07) (50313) Total ratings

ratings from goodreads

The Black Unicorn

by Terry Brooks in year 1987



 (3.78) (17414) Total ratings

ratings from goodreads

I, Robot

by Isaac Asimov in year 1950

Book Review

Krondor: The Betrayal

by Raymond E. Feist

★★★★★ (3.86)

Lorem ipsum dolor sit, amet consectetur adipisicing elit. Expedita consequuntur corrupti non. Maiores aut totam nemo voluptatibus, amet quam in laboriosam! Velit sunt optio non repellat iusto vel fugit, nam alias provident laboriosam, necessitatibus, quae et saepe quis quibusdam impedit asperiores dolorum nisi praesentium? Iusto quasi perspiciatis rerum nam quis facilis, nulla tempora aliquam quod consequuntur suscipit voluptatum sint eum incidunt omnis culpa laudantium saepe! Non iure cumque quos natus odio quis blanditiis, nihil voluptas officia repudiandae, dolor magni. Pariatur, molestiae quos impedit dignissimos, quae et aliquid delectus culpa ratione rem voluptates tempora autem doloribus accusamus sapiente consequuntur. Ipsam deserunt voluptates odit velit magnam minima iure nemo consequuntur quam, architecto vero sit quaerat reprehenderit adipisci cupiditate autem aperiam, ex harum? Hic omnis odit, consequatur velit ea debitis! Praesentium, fugit eius. Provident, consectetur quod explicabo sunt odit voluptate nam dolorem iusto nostrum, cupiditate architecto labore voluptatibus ratione assumenda, iure optio ex.

(13964) of users rated this book

ratings from goodreads

- Year: 1998
- ISBN: 0380795272

Your Ratings [edit](#)

★★★★★

Your Review:

Always loved the books written by Raymond another master piece loved it.

Community Review

Ronak Gohil

★★★★★

The book was very unrealistic and didn't matched my expectations!

Krondor: The Betrayal

by Raymond E. Feist

★★★★★ (3.86)

Lorem ipsum dolor sit, amet consectetur adipiscing elit. Expedita consequuntur corrupti non. Maiores aut totam nemo voluptatibus, amet quam in laboriosam! Velit sunt optio non repellat iusto vel fugit, nam alias provident laboriosam, necessitatibus, quae et saepe quis quibusdam impedit asperiores dolorum nisi praesentium? Iusto quasi perspiciatis rerum nam quis facilis, nulla tempora aliquam quod consequuntur suscipit voluptatum sint eum incidunt omnis culpa laudantium saepe! Non iure cumque quos natus odio quis blanditiis, nihil voluptas officia repudiandae, dolor magni. Pariatur, molestiae quos impedit dignissimos, quae et aliquid delectus culpa ratione rem voluptates tempora autem doloribus accusamus sapiente consequuntur. Ipsam deserunt voluptates odit velit magnam minima iure nemo consequuntur quam, architecto vero sit quaerat reprehenderit adipisci cupiditate autem aperiam, ex harum? Hic omnis odit, consequatur velit ea debitis! Praesentium, fugit eius. Provident, consectetur quod explicabo sunt odit voluptate nam dolorem iusto nostrum, cupiditate architecto labore voluptatibus ratione assumenda, iure optio ex.

(13964) of users rated this book

ratings from goodreads

- Year: 1998
- ISBN: 0380795272

Please Review this book

★★★★★

Enter Comments

Always loved the books written by Raymond another master piece loved it.

Submit

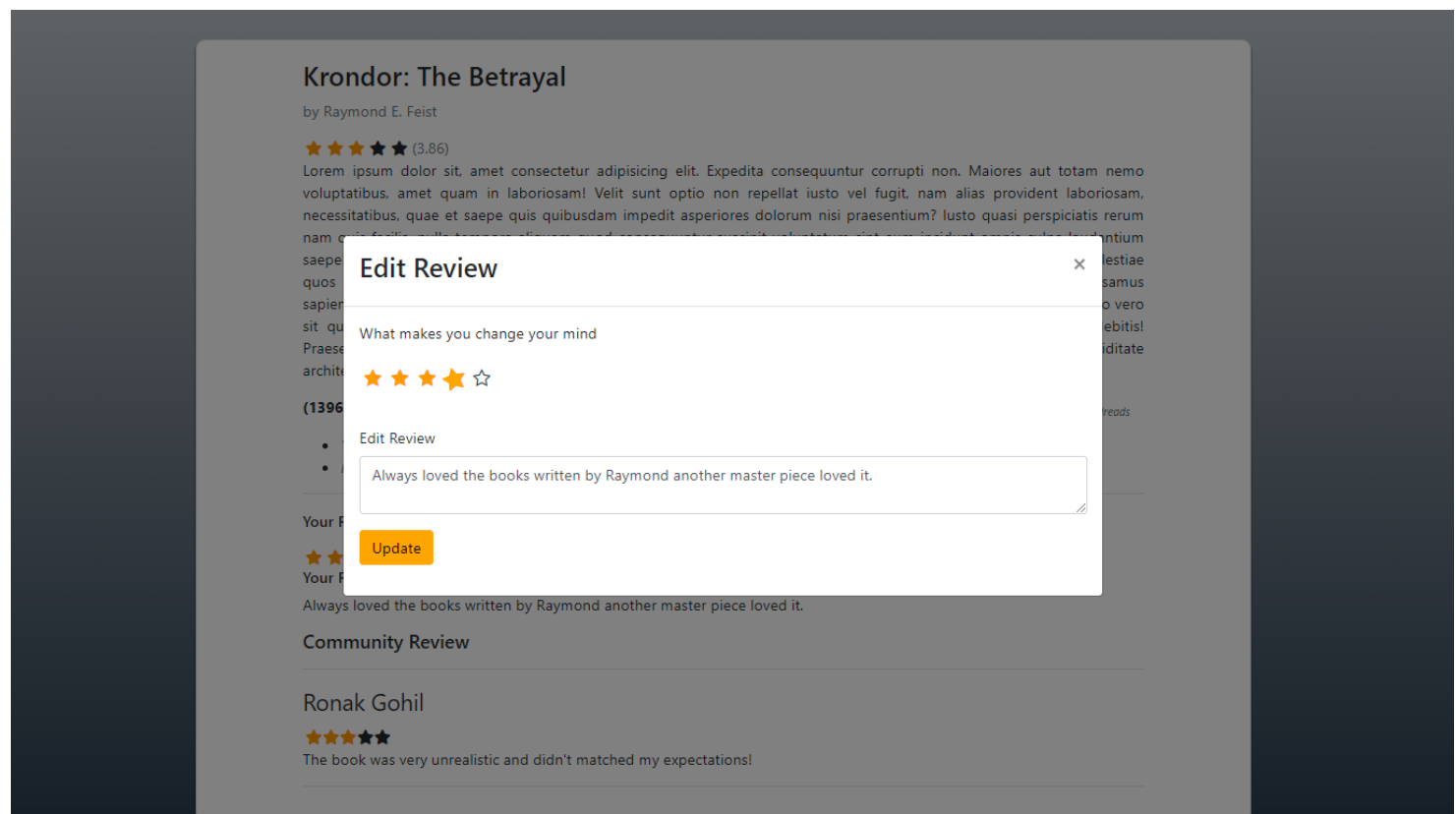
Community Review

Ronak Gohil

★★★★★

The book was very unrealistic and didn't matched my expectations!

Edit Review



API DATA

```
{
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  "average_score": "3.5",
  "isbn": "0380795272",
  "rating_count": "2",
  "review_count": "2",
  "reviews": [
    {
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      "review": "Always loved the books written by Raymond another master piece loved it.",
      "username": "Abduttayeb Bohra"
    },
    {
      "ratings": "3",
      "review": "The book was very unrealistic and didn't matched my expectations!",
      "username": "Abduttayeb Bohra"
    }
  ],
  "title": "Krondor: The Betrayal",
  "year": "1998"
}
```

Press **F11** to exit full screen

2.7 table specification

TABLE 1: Book

Field name	Field type	Description
Id	Integer	(Primary key)
Title	Character varying(50)	Not null
Description	Text	Not null
Isbn	Character varying(20)	Not null
Year	Integer	Not null
Authorname	Character varying(50)	Not null

TABLE 2: Userreview

Field name	Field type	Description
User_id	Integer	Null
Book_id	Integer	Null
Rating	Integer)	Not null
review	text	Null

TABLE 3: User

Field name	Field type	Description
Id	Integer	(Primary key)
Firstname	Character varying(20)	Not null
Middlename	Character varying(20)	Null
Lastname	Character varying(20)	Not null
Email	Character varying(120)	Not null
Password	Character varying(24)	Not null

2.8 Test Procedures and Implementation

Testing is a process of executing a program with the intent of finding an error or bugs. Testing is a crucial element of software quality assurance and presents ultimate review of specification, design and coding. System Testing is an important phase. Testing represents an interesting anomaly for the software. Thus, a series of testing are performed for the proposed system before the system is ready for user acceptance testing.

Testing is a set of activities that can be planned in advance and conducted systematically testing requires that the developer discard preconceived notions of the correctness of the software just developed and overcome a conflict of interest that occurs when errors are encountered. Testing is a process of technical investigation, performed on behalf of stakeholder. Testing can be stated as the process of validating and verifying of a software program/application/product.

Testing Objectives :

- Testing is a process of executing a program with the intent of finding an error.
- A good test case is one that has a probability of finding an as yet undiscovered error.
- A successful test is one that uncovers an undiscovered error.

Testing Principles :

- All tests should be traceable to end user requirements.
- Tests should be planned long before testing begins.
- Testing should begin on a small scale and progress towards testing in large.
- Exhaustive testing is not possible.
- To be most effective testing should be conducted by a independent third party.

Test configuration includes test plan and test cases and test tools. Tests are conducted and all the results are evaluated. That is test results are compared with expected results. When erroneous data are uncovered, an error is implied and debugging commences.

The primary objective for test case design is to derive a set of tests that has the highest livelihood for uncovering defects in software. To accomplish this objective two different categories of test case design techniques are used. They are

- White box testing.
- Black box testing.

White-box testing :

- White box testing focus on the program control structure. Test cases are derived to ensure that all statements in the program have been executed at least once during testing and that all logical conditions have been executed.

Block-box testing :

- Black box testing is designed to validate functional requirements without regard to the internal workings of a program. Black box testing mainly focuses on the information domain of the software, deriving test cases by partitioning input and output in a manner that provides thorough test coverage. Incorrect and missing functions, interface errors, errors in data structures, error in functional logic are the errors falling in this category

2.9 Test Cases:

Test Case ID	Objective	Description	Expected Output
1.	Register Page	If not, all fields are filled except middle name field.	* All fields are compulsory
2.	Register Page	If email is already registered	User already exist
3.	Register Page	If new password and confirm password doesn't match.	Password mismatch
4.	Register Page	If valid data given by the user	Redirect login page with message "Account created please login to continue"
5.	Login Page	If invalid credentials given by the user	Invalid email or password
6.	Login Page	If valid Credentials	Redirect to home page
7.	Home Page	Search bar is not filled.	This field is required
8.	Edit Profile	If email is already exist	Email is taken
9.	Edit Profile	If valid data is provided.	Information updated
10.	Change Password	If old password doesn't match	Wrong Password
11.	Change Password	If new password and confirm password doesn't match	Password mismatch
12.	Change Password	If valid Password	Password changed successfully
13.	Book Details	If already reviewed	Show review
14.	Book Details	If not reviewed	Show review form

3. Drawbacks and Limitations

Due to the time constraints and new technology following limitations are encountered by our team, which are as follows:

- GUI for adding and managing the books is not provided because of time constraints and security considerations.
- Due to time constraints we were not able to find the description for the 5000 books initially stored in database
- Along with description image for the books is also not provided because of time constraints and huge records

4. Future Enhancement

The future considerations of reader space project are as following:

- Adding Admin panel with user roles.
- Adding forget password feature through sending temporary link to provided email.
- Adding a feature for adding user as a friend for building a community.
- Adding feature for users to request for adding books to the system.
- More API support for developer's community. (i.e. Authentication API etc.)

5. Conclusions

- **Reader space** provides facility to conduct all book detail review and rating. It saves time as it allows number of user to appear for book at a time and display book detail as gets over. online book review website which facilitates the reader to browse the books and check the book detail such as title, description, author name, etc. Also, the user will be able to give the review of the book which the user has already read. Also, the user will be able to give the review of the book which the user has already read.

6. Bibliography

- docs.python.org/
- <https://flask.palletsprojects.com/en/1.1.x/>
- <https://www.sqlalchemy.org/>
- <https://www.w3schools.com/>
- <https://www.geekforgeeks.com/>
- <https://www.youtube.com/>