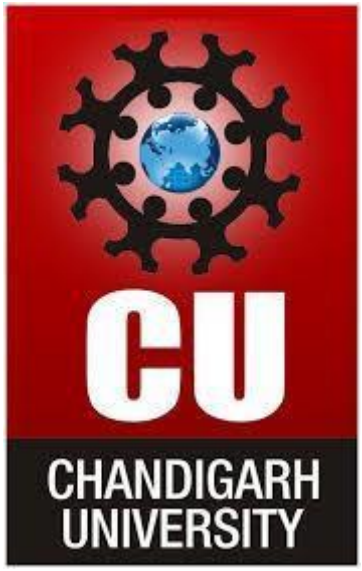
A REPORT OF SIX WEEKS INDUSTRIAL TRAINING
at

ATC PRIVATE LIMITED

SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE AWARD
OF THE DEGREE OF

BACHELOR OF ENGINEERING
(Computer Science and Engineering)



MAY-JUNE, 2019

SUBMITTED BY:
RAHUL CHANDRA
17BCS1811

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING CHANDIGARH UNIVERSITY GHARUAN, MOHALI

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CERTIFICATE

This is to certify that the project entitled, submitted by RAHUL CHANDRA in partial fulfillment of the requirements for the award of be SIX WEEKS INDUSTRIAL TRAINING in BE-CSE at the ATC is an authentic work carried out by her under my supervision and guidance.

CERTIFIED BY – PUSHPINDER GUPTA

CHANDIGARH UNIVERSITY, GHARUAN, MOHALI

CANDIDATE'S DECLARATION

I RAHUL CHANDRA hereby declare that I have undertaken six weeks industrial training at ATC during a period from 13-05- 2019 to 05-07-2019 in partial fulfillment of requirements for the award of degree of B.E (COMPUTER SCIENCE AND ENGINEERING) at CHANDIGARH UNIVERSITY GHARUAN, MOHALI. The work which is being presented in the training report submitted to Department of Computer Science and Engineering at CHANDIGARH UNIVERSITY GHARUAN, MOHALI is an authentic record of training work.

Signature of the Student

The six weeks industrial training Viva–Voce Examination of_____ has been held on _____ and accepted.

Signature of Internal Examiner Signature of External Examiner

ABSTRACT

The large amount of time wastage in standing in line has led to the development of this website. This project proposes the use of framework to develop website. This report provides a detailed summary of the project as part of fulfillment of the semester's Writing Project, Computer Science Department, Chandigarh University. The report includes a description of the topic, system architecture, and provides a detailed description of the work done till point. Included in the report are the detailed descriptions of the work done: snapshots of the implementations, various approaches, and tools used so far. The report also includes the project schedule and deliverables.

ACKNOWLEDGEMENT

First and foremost, praises and thanks to the God, the Almighty, for His showers of blessings throughout my research work to complete the research successfully.

I would like to express my deep and sincere gratitude to my training supervisor, PUSHPINDER GUPTA, Vice President, ATC INDIA, for giving me the opportunity to do project and providing invaluable guidance throughout this research. His dynamism, vision, sincerity and motivation have deeply inspired me. He has taught me the methodology to carry out the research and to present the research works as clearly as possible. It was a great privilege and honor to work and study under his guidance. I am extremely grateful for what she has offered me. I would also like to thank her for her friendship, empathy, and great sense of humor.

I am extremely grateful to my parents for their love, prayers, caring and sacrifices for educating and preparing me for my future.

RAHUL CHANDRA (17BCS1811)

ABOUT CHANDIGARH UNIVERSITY

Chandigarh University (CU) is a leading Indian Institution offering Its students a unique amalgamation of professional and academic excellence. Ranked Asia's best and fastest among growing universities, CU has coupled the experience of top leaders and renowned industry academicians and fosters a worldly approach.

Wide spectrum of programs paired with flexibility, experiential learning and interdisciplinary orientation emancipate our students to explore their interests and pursue fulfilling careers. At CU we are grooming students to be socially sensitive through intellectually challenging and contemporary diverse culture.

Vision

"To be globally recognized as a Centre of Excellence for Research, Innovation, Entrepreneurship and disseminating knowledge by providing inspirational learning to produce professional leaders for serving the society"

Mission

• Providing world class infrastructure, renowned academicians and an ideal environment for Research, Innovation, Consultancy and Entrepreneurship.
• Creating Curriculum to match international standards along with comprehensive training and inculcation of Human and Ethical values to meet the needs of industry and civil society.
• Creating a scientific, Transparent and Impartial Examination/Evaluation system to ensure an ideal certification.
• Establishing strategic relationship with leading National & International corporate and universities for academic as well as research collaborations.
• Undertaking ISR activities for women empowerment, upliftment of rural/deprived sections of the society and socially relevant research.

Quality Policy

• All round quality is assured through professional management of the University.
• Academic quality is assured through regular up gradation of curriculum, teaching learning model and experiential learning with Industry participation, based on continuous critical self-appraisal.
• Traits of Critical Analysis, Creative Thinking & Communication Skills are inculcated among students for producing well-groomed professional leaders, possessing multifaceted personality, respect for professional & social ethics, national values, and the spirit of human emancipation.

DEFINITIONS, ACRONYMS AND ABBREVIATIONS

• DFD(DATA FLOW DIAGRAM)

A data-flow diagram (DFD) is a way of representing a flow of a data of a process or a system (usually an information system). The DFD also provides information about the outputs and inputs of each entity and the process itself.

• ER DIAGRAM(ENTITY RELATIONSHIP DIAGRAM)

Entity Relationship Diagram, also known as ERD, ER Diagram or ER model, is a type of structural diagram for use in database design. An ERD contains different symbols and connectors that visualize two important information: The major entities within the system scope, and the inter-relationships among these entities.

• UML DIAGRAMS(UNIFIED MODELLING LANGUAGE)

A UML diagram is a diagram based on the UML(Unified Modeling Language) with the purpose of visually representing a system along with its main actors, roles, actions, artifacts or classes, in order to better understand, alter, maintain, or document information about the system.

• OS(OPERATING SYSTEM)

An operating system (OS) is system software that manages computer hardware and software resources and provides common services for computer programs.

• GUI(GRAPHICAL USER INTERFACE)

The graphical user interface is a form of user interface that allows users to interact with electronic devices through graphical icons and visual indicators such as secondary notation, instead of text-based user interfaces, typed command labels or text navigation.

CHAPTER 1 INTRODUCTION

1.1 ABOUT SYSTEM

An web application through which thr bakery owners can sell their bakery items. The customer can reach to the bakery which is near to him/her. This is a time saving webapp. This will save much time by not standing in shop for food. Customer just have to order food when they are about to get free.

1.2 TECHNOLOGY USED

JSP:

Architecturally, JSP may be viewed as a high-level abstraction of Java servlets. JSPs are translated into servlets at runtime, therefore JSP is a Servlet; each JSP servlet is cached and re-used until the original JSP is modified.[2] JSP can be used independently or as the view component of a server-side model–view–controller design, normally with JavaBeans as the model and Java servlets (or a framework such as Apache Struts) as the controller. This is a type of Model 2 architecture.[3] JSP allows Java code and certain predefined actions to be interleaved with static web markup content, such as HTML, with the resulting page being compiled and executed on the server to deliver a document. The compiled pages, as well as any dependent Java libraries, contain Java bytecode rather than machine code. Like any other Java program, they must be executed within a Java virtual machine (JVM) that interacts with the server's host operating system to provide an abstract, platform-neutral environment. JSPs are usually used to deliver HTML and XML documents, but through the use of OutputStream, they can deliver other types of data as well.[4] The Web container creates JSP implicit objects like request, response, session, application, config, page, pageContext, out and exception. JSP Engine creates these objects during translation phase.

HTML:

HTML (HyperText Markup Language) is the most basic building block of the Web. It defines the meaning and structure of web content. Other technologies besides HTML are generally used to describe a web page's appearance/presentation (CSS) or functionality/behavior (JavaScript).

CSS

Cascading Style Sheets is a style sheet language used for describing the presentation of a document written in a markup language like HTML. CSS is a cornerstone technology of the World Wide Web, alongside HTML and JavaScript.

JAVASCRIPT

JavaScript, often abbreviated as JS, is a high-level, interpreted programming language that conforms to the ECMAScript specification. JavaScript has curly-bracket syntax, dynamic typing, prototype-based object-orientation, and first-class functions.

MYSQL

MySQL is an open-source relational database management system. Its name is a combination of "My", the name of co-founder Michael Widenius's daughter, and "SQL", the abbreviation for Structured Query Language.

1.3 SRS

1. INTRODUCTION

1.1 PURPOSE

This specification design document will detail the design of website for the selecting the most prefered language.

A website to sell and buy bakery items.

This website saves much time of the person by not standing in the queue for food.

Online shopping provides customers to get a option to buy all the different types of varities.

1.2 DOCUMENT CONVENTION

While writing this design document it was inherited that all requirements have the same priority.

First an overview of the system is presented and then all features and functions are analyzed in detail.

1.3 INTENDED AUDIENCE AND READING SUGGESTION

Development: In order to be sure that our team is developing the right project that fulfil requirements provided in this document. In order to have an exact list of the features and functions that are required to respond according to requirements and provided diagrams .Our team will get familiar with the idea of the project and suggest other features that would make it even more functional.

Users: In order to know exactly what they have to expect from the system right inputs and outputs and response in error situations.

Testers understand how flask and html is supposed to work properly and identify bugs and error easier.

This document could be studied by the program developers, so they have the chance to identify and alter possible points which need improvement. Also, they can fully understand the nature of the program and implement new features. It is recommended to comprehensive study of the document for the full understanding of the program and to avoid errors.

1.4 PROJECT SCOPE

It is an online website. It is build using HTML, CSS, JAVASCRIPT, BOOTSTRAP, JSP – Flask, Mysql. It allows some amount of traffic currently. It supports local hosting feature also. Next chapters will allow a lot of traffic very easily.

2. OVERALL DESCRIPTION

It is a python based website so fundamental features related with python libraries such as flask and database properties determine the software requirements of that project.

2.1 PRODUCT PERSPECTIVE

The belongs to website category. These are the minimum requirements that are needed to run and built .

OS: Linux, Mac, Windows XP
RAM: 512MB
Pycharm IDE
Disc Space: 50MB

2.2 PRODUCT FEATURE

It provides several options for the user.

Simple website
Full support for all image formats
Shop owner usertype option
Customer usertype option Show item option
Cart option
Unlimited buying option Order option
Account information editing features Secure Payment option
Add or remove items

2.3 USER CLASSES AND CHARACTERISTICS

Users that intend to buy or sell products. These users could be of any age, with no special knowledge. Knowing how to use a website is an essential.
User can also maintain their account information
Programmers- Software Developers –Open Source project participants of any age that could understand the program's source code and expand or improve it. Must have knowledge of the programming language that the software is written in, in order to be able to understand exactly what it does and how it does it. Also some experience on programming will most certainly help on extending or improving the project.

2.4 DESIGN AND IMPLEMENTATION CONSTANT

This website is designed in HTML, CSS, JAVASCRIPT, BOOTSTRAP, Python, Mysql and using flask library which makes it simple and user friendly. It uses mysql to store the data into database. Everytime user have to login themselves, firstly they have to signup first.

3. SYSTEM FEATURES

3.1 FUNCTIONAL REQUIREMENTS

Login/Signup: This feature will help user to proceed forward into the website.
Add items: This feature helps bakery owner users to add bakery item in their list.
Order: This feature helps bakery owner user to track the orders made by the users.
Show items: This feature help user to get show all the different items present on that website.
Cart: This feature shows which items they have selected to buy.

4. EXTERNAL INTERFACE REQUIREMENTS

4.1 USER INTERFACE

The system must provide a user interface for all types of users that is available through all Web browsers.

4.2 HARDWARE INTERFACE

There are no hardware interfaces to this website. The only interfaces are through a computer system. does not require additional material to run. The only peripheral equipment is the keyboard and the mouse.

4.3 SOFTWARE INTERFACE

OS: Linux, Mac, Windows, Android
Web Browser: such as chrome, Firefox, Internet explorer.
Pycharm: IDE for the development.
Python: Python is an interpreted, object-oriented, high-level programming language with dynamic semantics. Its high-level built in data structures, combined with dynamic typing and dynamic binding, make it very attractive for Rapid Application Development, as well as for use as a scripting or glue language to connect existing components together. Python's simple, easy to learn syntax emphasizes readability and therefore reduces the cost of program maintenance.

5. NON-FUNCTIONAL REQUIREMENTS

5.1 PERFORMANCE REQUIREMENTS

It requires a small amount of disk space. It is characterized by fast loading and executing times. It‘s not a heavy program and it can works while other programs are running.

5.2 SAFETY REQUIREMENTS

There are no specific safety requirements as cannot make user’s computer malfunction in any way. The only safety requirement is to upload your contact safely.

5.3 PORTABILITY

1. The system must be able to run on Windows systems.
2. The system must be able to run on Macintosh systems.
3. The system must be able to run on Unix systems.
4. The code should be readable, well commented, and maintainable.
5. The system must be written in Python.

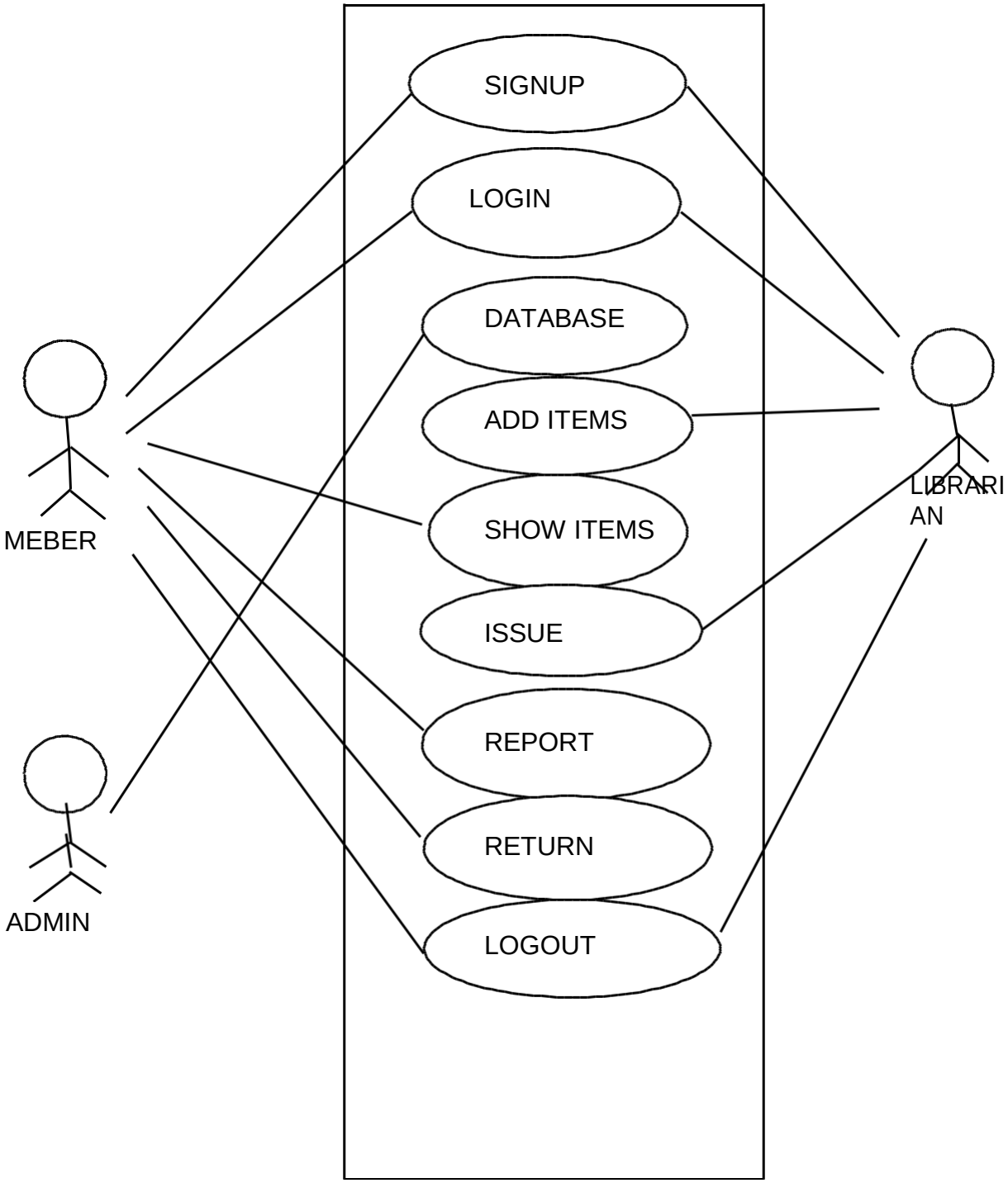
5.4 MAINTAINABILITY

Maintainability is very important for this system because another group will be maintaining it. Therefore, it is very important that all programmers comment their code anytime something is unclear. Python makes indentation important, therefore the code is guaranteed to be more readable.

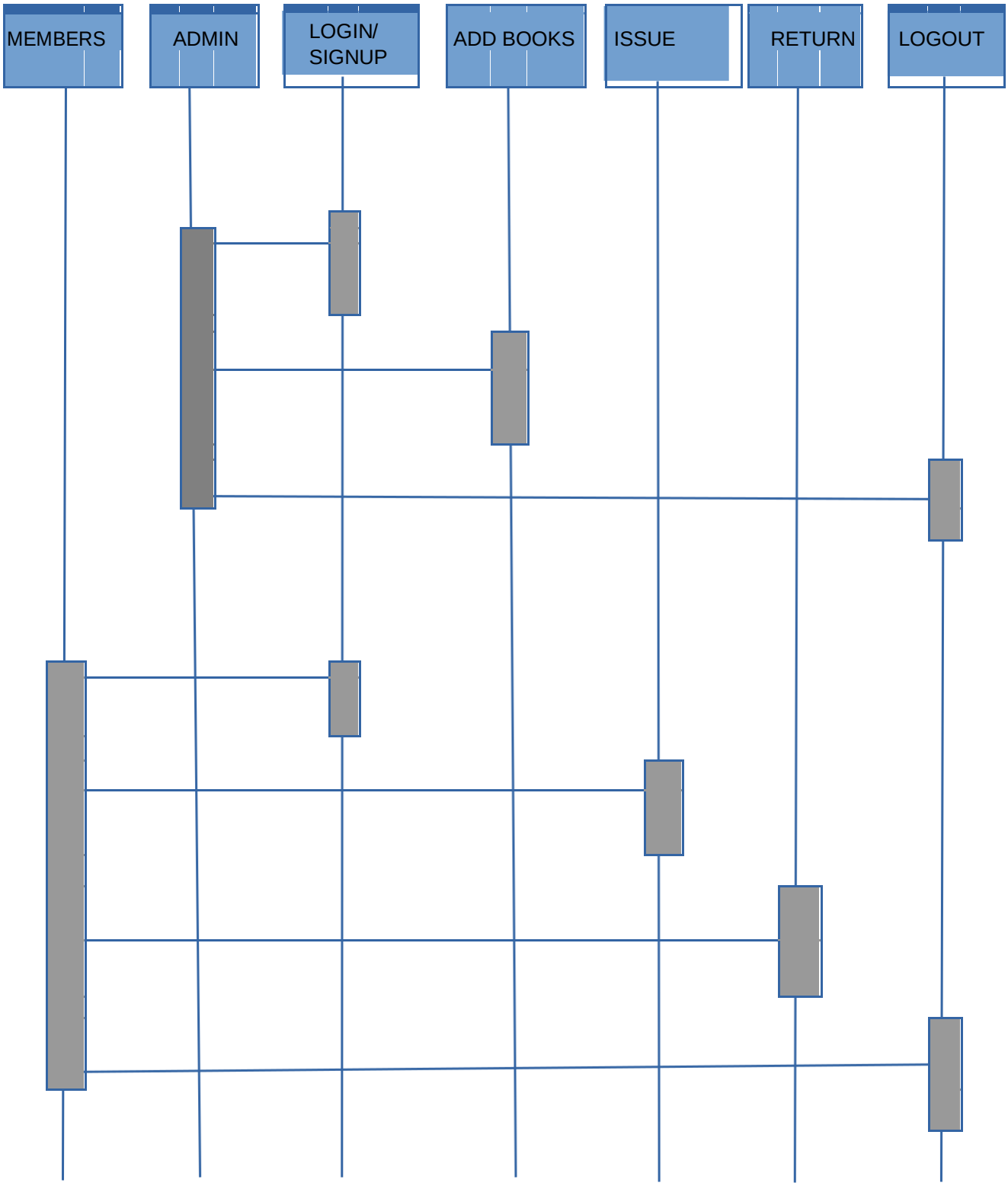
At the beginning of each function there shall be PyDoc comments explaining what the function does and what input and output is expected.

1.4 UML DIAGRAMS

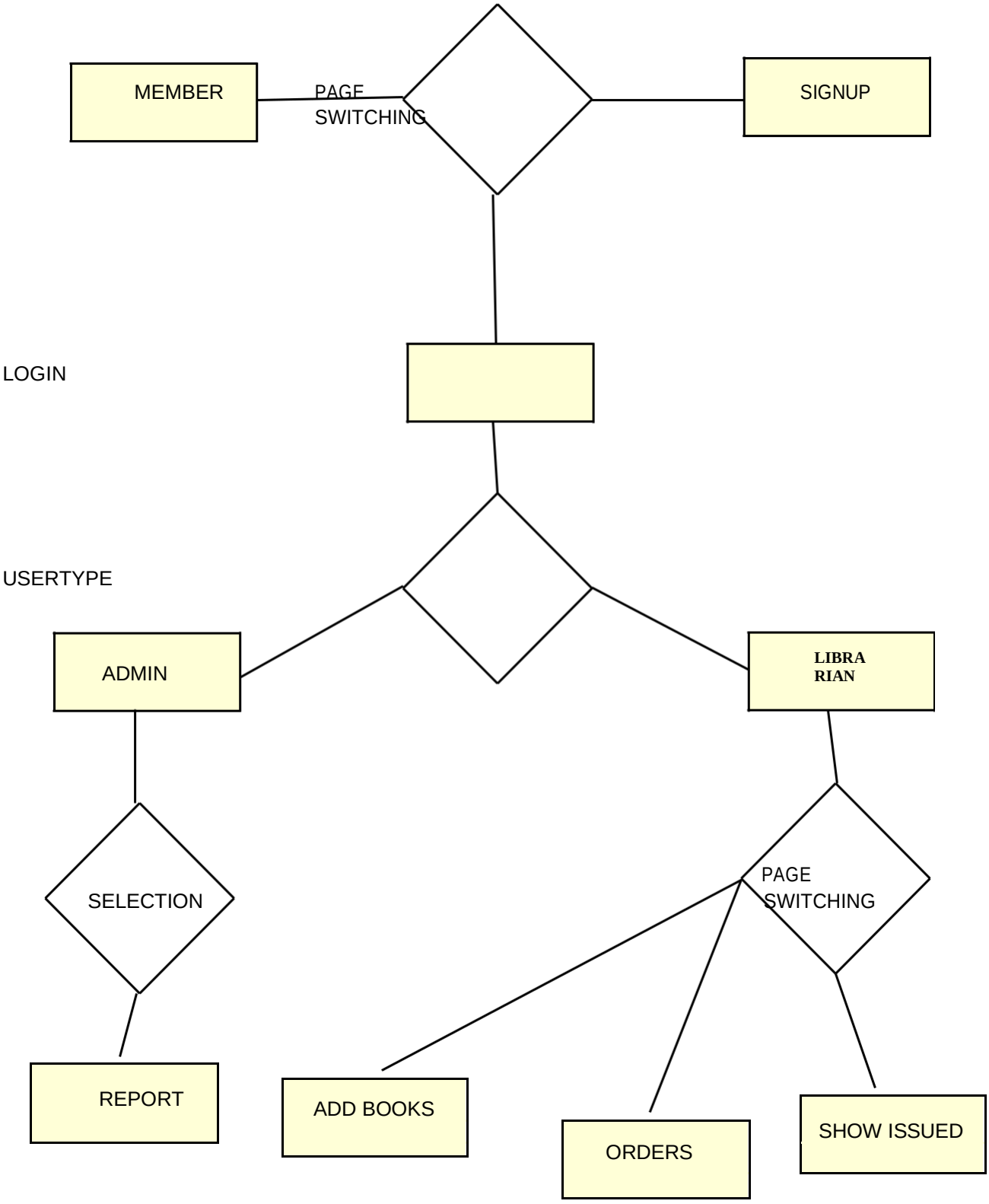
1.4.1 USE CASE DIAGRAM



1.4.2 SEQUENCE DIAGRAM

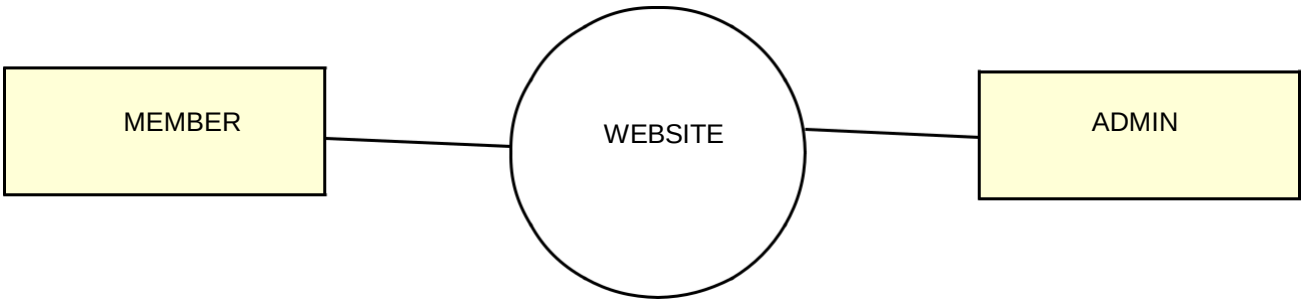


1.4.3 ENTITY RELATIONSHIP DIAGRAM

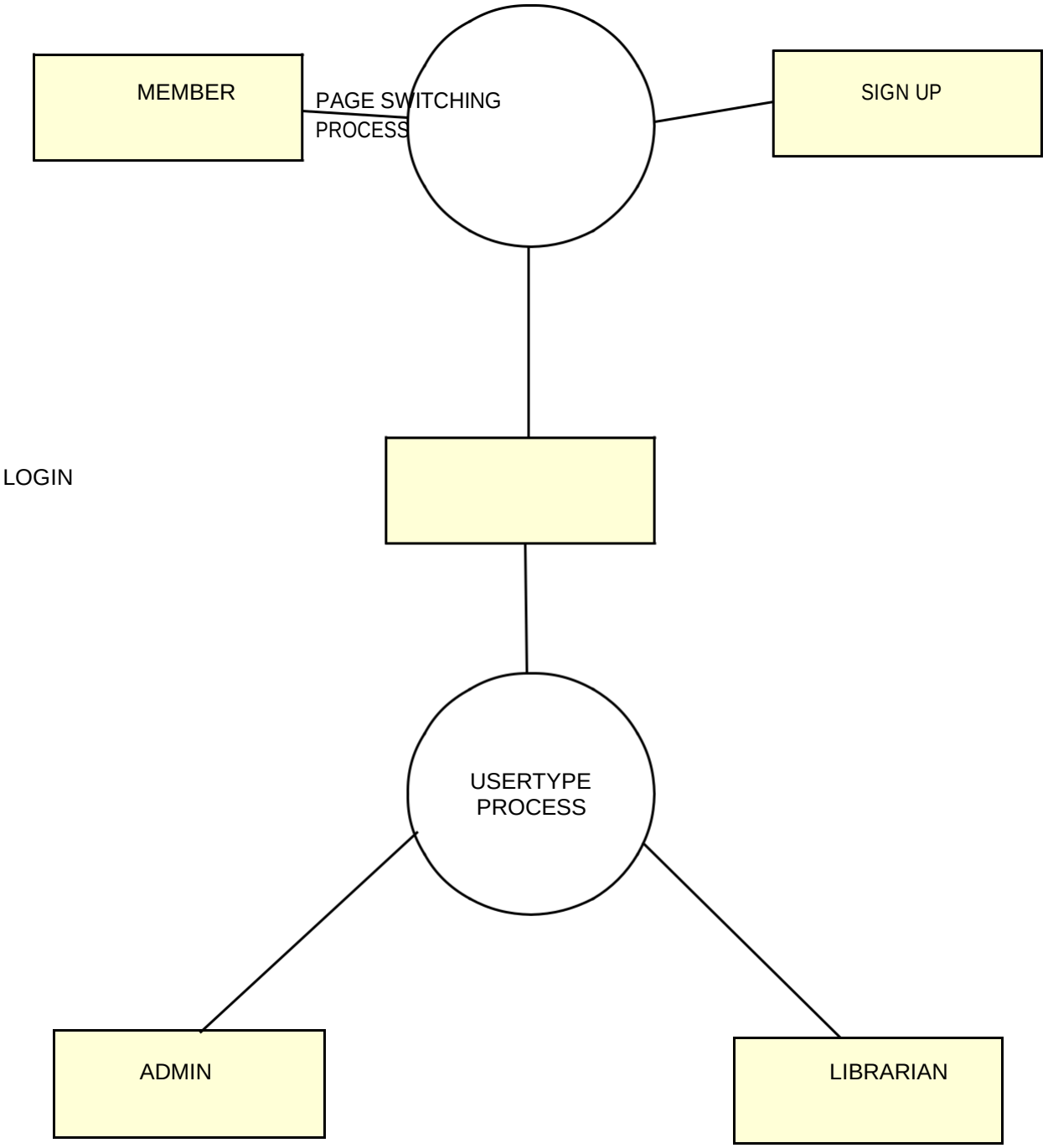


1.4.4 DATA FLOW DIAGRAM

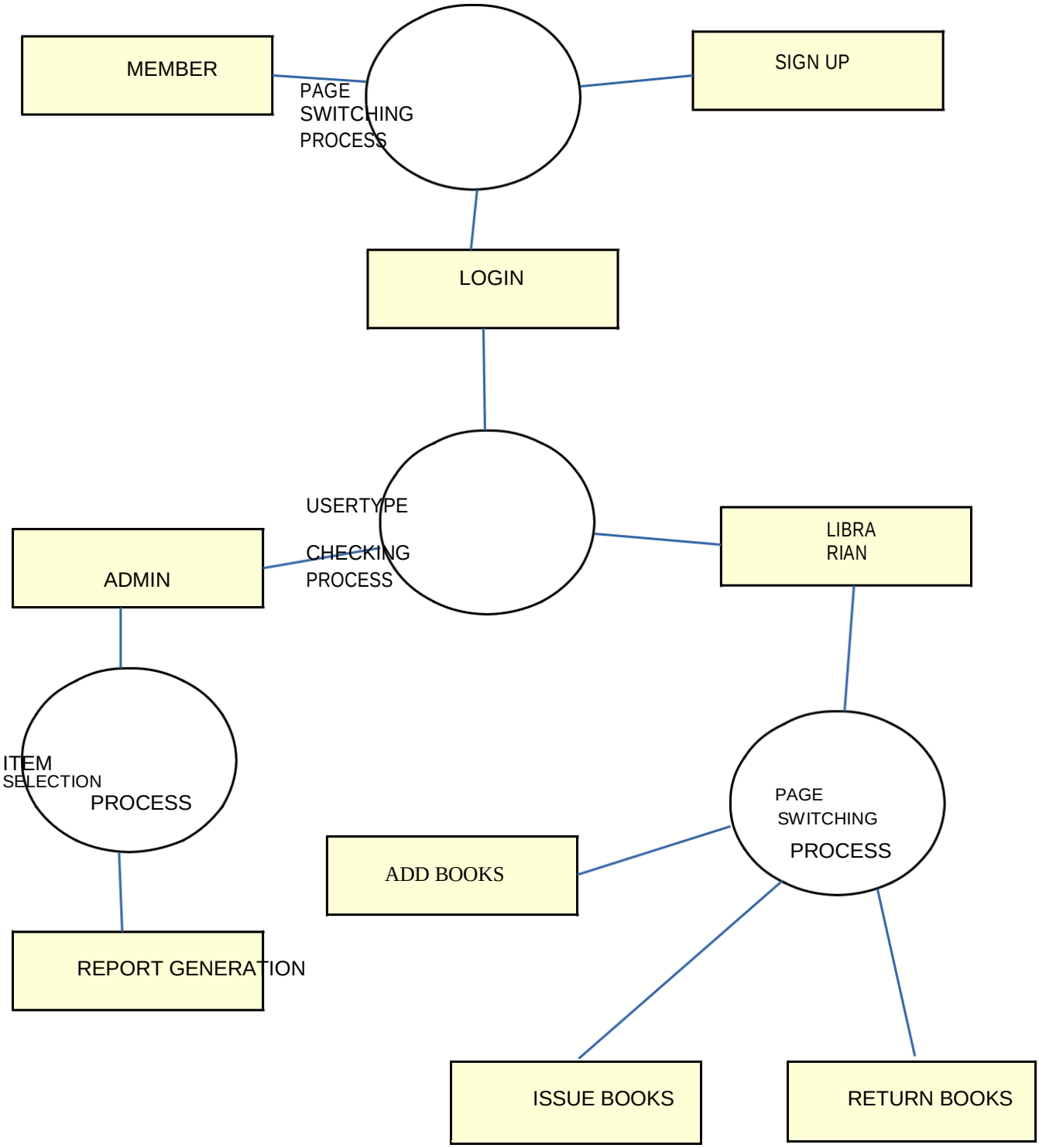
1.4.4.1 ZERO LEVEL DIAGRAM



1.4.4.2 ONE LEVEL DIAGRAM



1.4.4.3 TWO LEVEL DIAGRAM



PROJECT INFORMATION:

Project Goals:

1. To create a Library Management Portal(**Booktique)** which will be going to solve the problem for the Librarian to issue the book and return the book.
2. It will also help the company to find how many of them are thrive to learn and read about the employee.
3. It will also give them the statistical report according to the different parameters in the bar chart, line chart and box chart.
4. It will reduce the manual work by the long term thinking of how to reduce the stress from the user.

The Booktique

Project Abstract:

About Project:

ATC Booktique: This project will be going to prove as a permanent solution for the LMS of ATC, through which the member (permanent/contractual), librarian and admin could work parallel without interruption of each other. It will also reduce the burden from both the Administrative Side and Member Side for issuing the book.
After of it the user will be able to generate some kind of the visualized report on the basis of different constraints like according to book demand(on the basis of author, publisher year, publisher name and others.)

Situation Before Booktique:

Till now, the Librarian work was totally dependent on the Excel sheets and he/she had to manually maintain the data of the book issued/returned/added and also needed to take care of who are the members or not. Through this the Librarian are not aware of the more important task.

Proposed Timeline and Objective:

This is a tentative list of objective or overview, I am planning to achieve in the given time frame. There could be situations in which project may get delayed or get early completion. I had already planned to handle such situation with the help of a **buffer week** in which I will be going to do the documentation and testing part both so that whole project is in a good format all through.

Week 1
Community Bonding Period
(13 May-18 May)

- In this period I was first introduced with the team of ATC and got to meet my mentors and learnt about how Corporate works.
- Got to know about the requirement specification for the Project **Booktique.**
- After of it I had tried to find more information through meetings and sessions with my mentors Amit Sir and Shubham Sir.

Week 2
First Milestone
(19 May-25 May)

- Created a dummy prototype with Java Swing and Palette, to find how Java works on the client side without any integration of Server.
- Learnt about the JSP configuration through Eclipse IDE and was also introduced with MySql and Javascript Basics.
- Learnt how to do the configuration of Tomcat Server Version 9.0 with Eclipse, to run the project on Google Chrome, Firefox, Microsoft Edge.
- Created a Basic SRS Report and Database Table Report, which will be used to make the columns for the **Booktique**.

Week 3
Second Milestone
(26 May-2 June)

- Created 2 **modules** (Login Page and Home Page) in JSP.
- Created the database in MySQL through Command Line Client.
- With the help of mentors we were be able to set the basic layout of Project to find how it will be going to work.
- With session we had created the frameworks for the MySQL Database **Lib** and find the different requirements before entering the data on it.

2 June-4 June
Phase 1 Evaluation

Week 4
Third Milestone
(4 June –11 June)

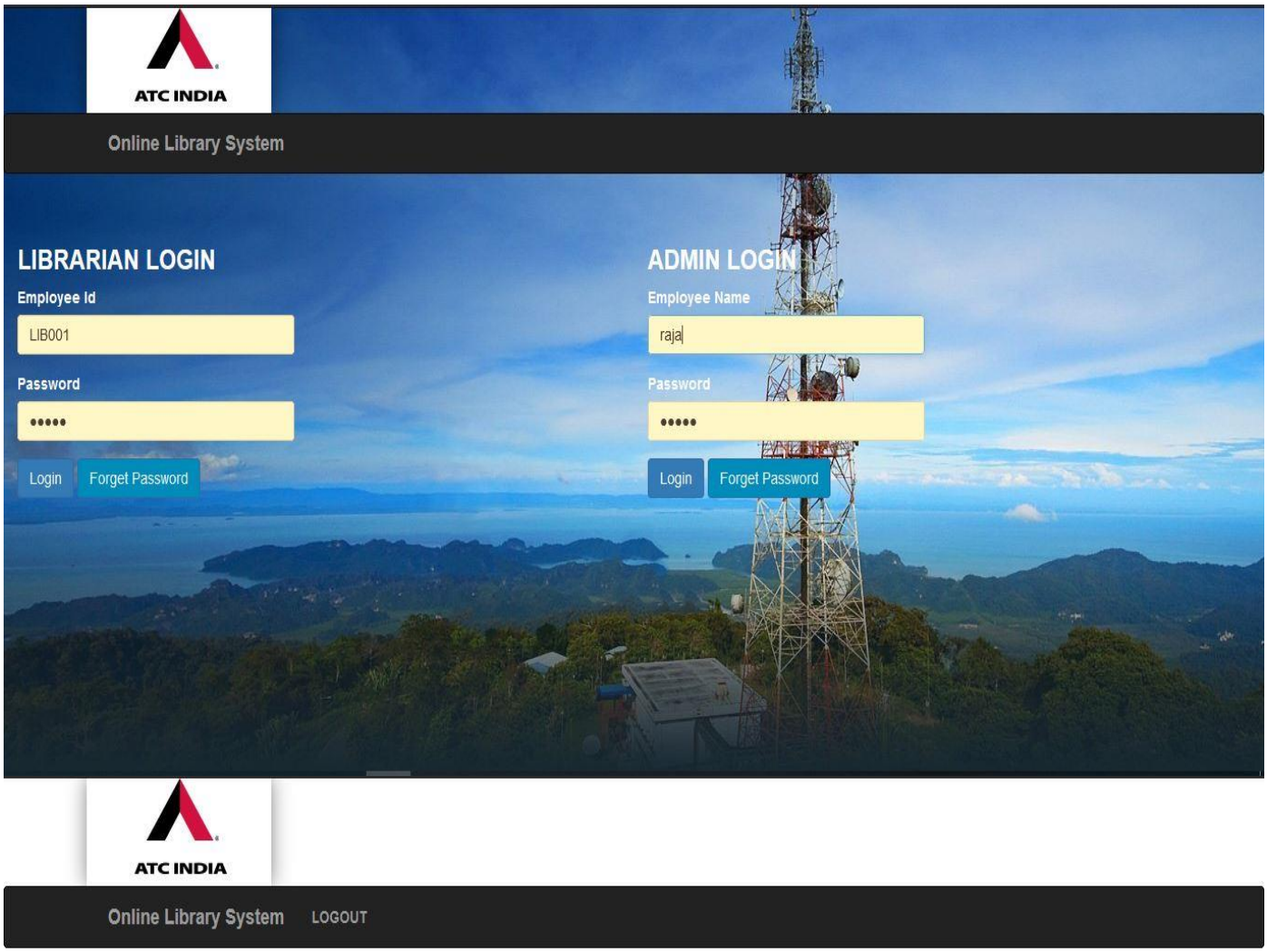
- On the basis of First Evaluation, I had changed and added some more columns to the database according to the SRS for better data processing and entering.
- Add some animation features like Modal Box(Pop Up Box), Edit and Delete Records on the Add Book, Add Librarian, Add Member page, so that it will looks nice and good.
- Completed the 3 out of 4 modules like Book, Lib, Mem and added all the configuration to it with the help and support from the Mentors /

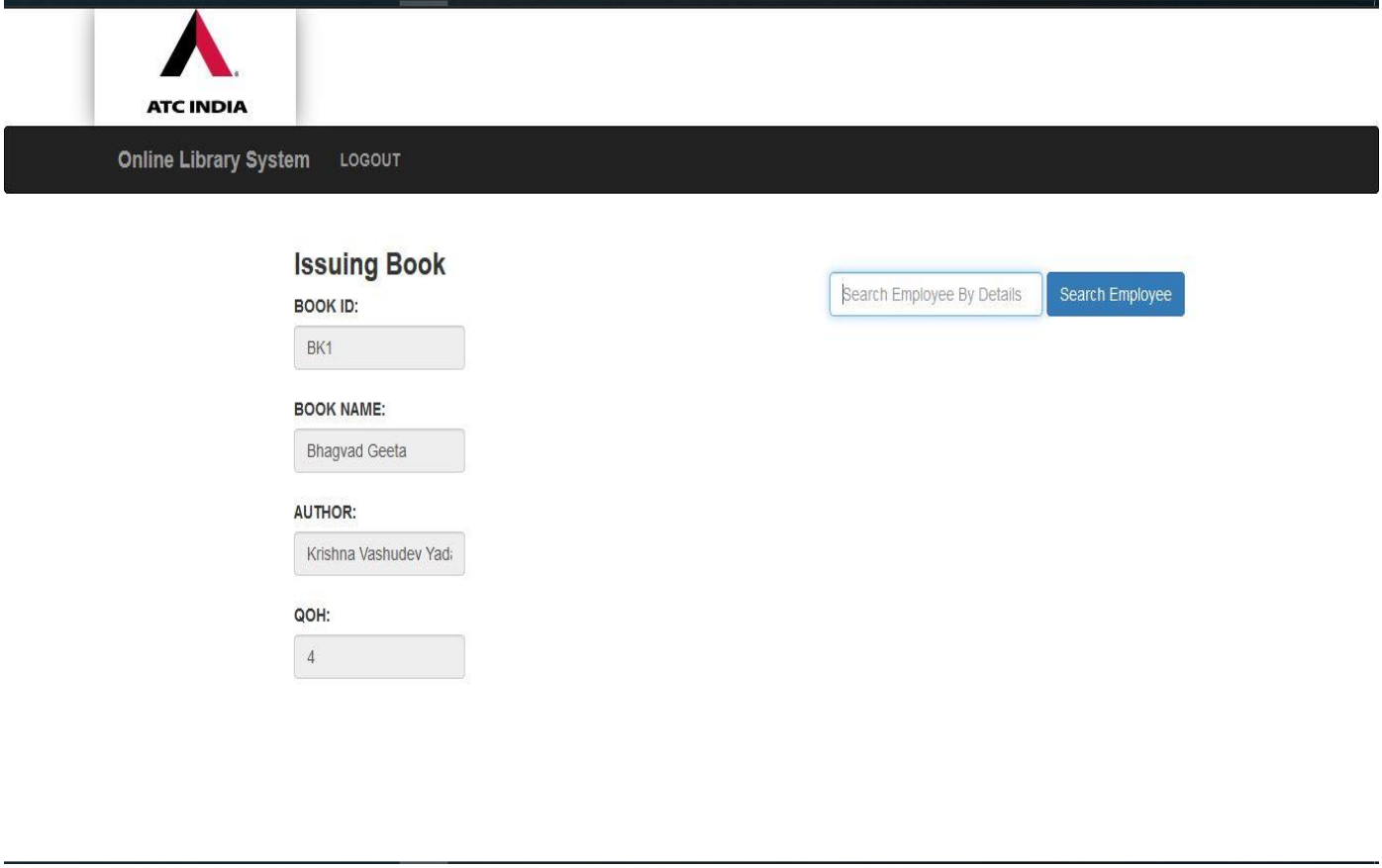
Week 5
Fourth Milestone
(12 June- 12 July)

- Add the features to download Static Report File(CSV file) through a button in the C: directory automatically of the PC/Laptop which will help them to easily work on the data without any hassle.
- Looking forward to change the Book Table both in MySQL and JSP to reduce data redundancy and making easier for the Librarian to update the quantity for the same book of same author but with different ISBN no and Publishing Year, it will help us to easily reduce the data redundancy.

12 July
Phase 2 Evaluation Completed/Project Submission Completed

SCREENSHOTS:





Search By Book Details | Issue Book

DOWNLOAD AS CSV

RETURNED BOOK DETAILS PANEL

TRANS NO	BOOKS NO	MEMBER ID	TRANSACTION DATE	EXPECTED RETURN DATE	RETURN BOOK
1	BK4	ATCMEM1	2019-07-06 12:13:55.0	2019-7-20	Successful Transaction
9	BK2	ATCMEM1	2019-07-09 15:34:12.0	2019-7-24	Successful Transaction

```
MySQL 5.5 Command Line Client
Enter password: *****
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 1
Server version: 5.5.16 MySQL Community Server (GPL)

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owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> use lib;
Database changed
mysql> show tables;
+---------------+
| Tables_in_lib |
+---------------+
| admin         |
| books         |
| librarian     |
| mem           |
| trans         |
+---------------+
5 rows in set (0.19 sec)

mysql> select * from books;
+----+--------+--------------------+----------------------+-----------------------------+------------------+----------+----------------+---------+-----+--------+-----------+----------+----
----------------+
| id | bookno | bookname           | author               | publisher                   | publication_year | language | bcategoryid    | isbn_no | qoh | issued | bookprice | bdeleted | add
ed_date         |
+----+--------+--------------------+----------------------+-----------------------------+------------------+----------+----------------+---------+-----+--------+-----------+----------+----
----------------+
|  1 | BK1    | Bhagvad Geeta      | Krishna Vashudev Yadav | Geet Press Gorakhpur House |             1990 | Hindi    | Religous       | null    |   4 |      1 |      1500 | n        | 201
9-07-09 10:41:59 |
|  2 | BK2    | Guliver Travels    | Marvels              | Infinity Wars               |             2019 | English  | Science/Fiction | null    |   2 |      3 |       100 | n        | 201
9-07-09 15:34:12 |
|  3 | BK3    | Anna Karenina      | Leo Tolstoy          | Jaico Publishing Houses     |             2019 | English  | Coding         | null    |   2 |      3 |      1000 | n        | 201
9-07-09 15:33:17 |
|  4 | BK4    | Madame Bovary Yadav | Gustave Flaubert Singh | Westland Publications House |             2019 | English  | Health         | null    | 100 |      1 |       200 | n        | 201
9-07-09 10:42:24 |
|  5 | BK5    | War and Peace      | Leo Tolstoy          | Rupa Publications           |             2019 | English  | Motivational   | 2       |   5 |      0 |       250 | y        | 201
9-07-05 16:18:51 |
+----+--------+--------------------+----------------------+-----------------------------+------------------+----------+----------------+---------+-----+--------+-----------+----------+----
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5 rows in set (0.03 sec)
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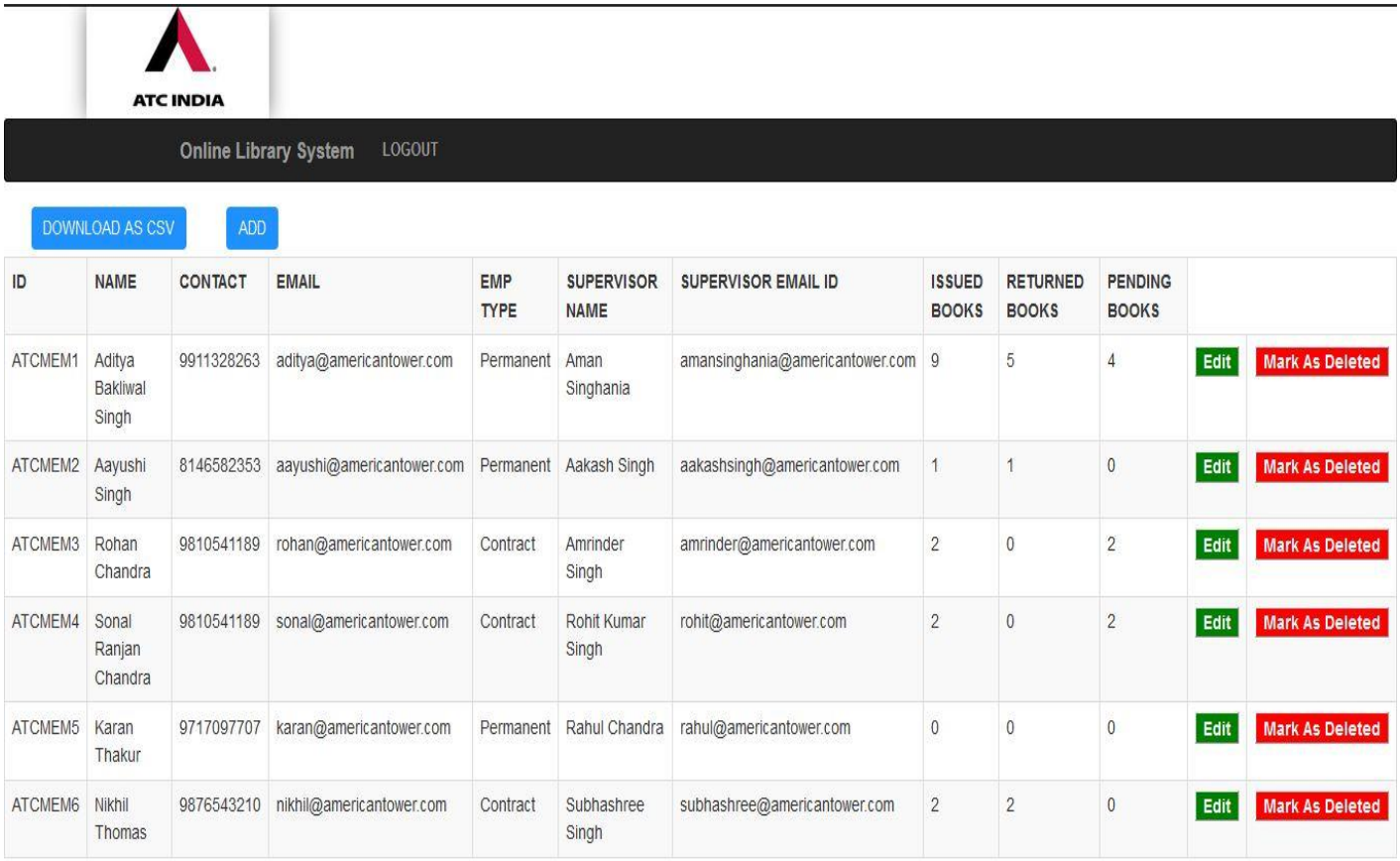

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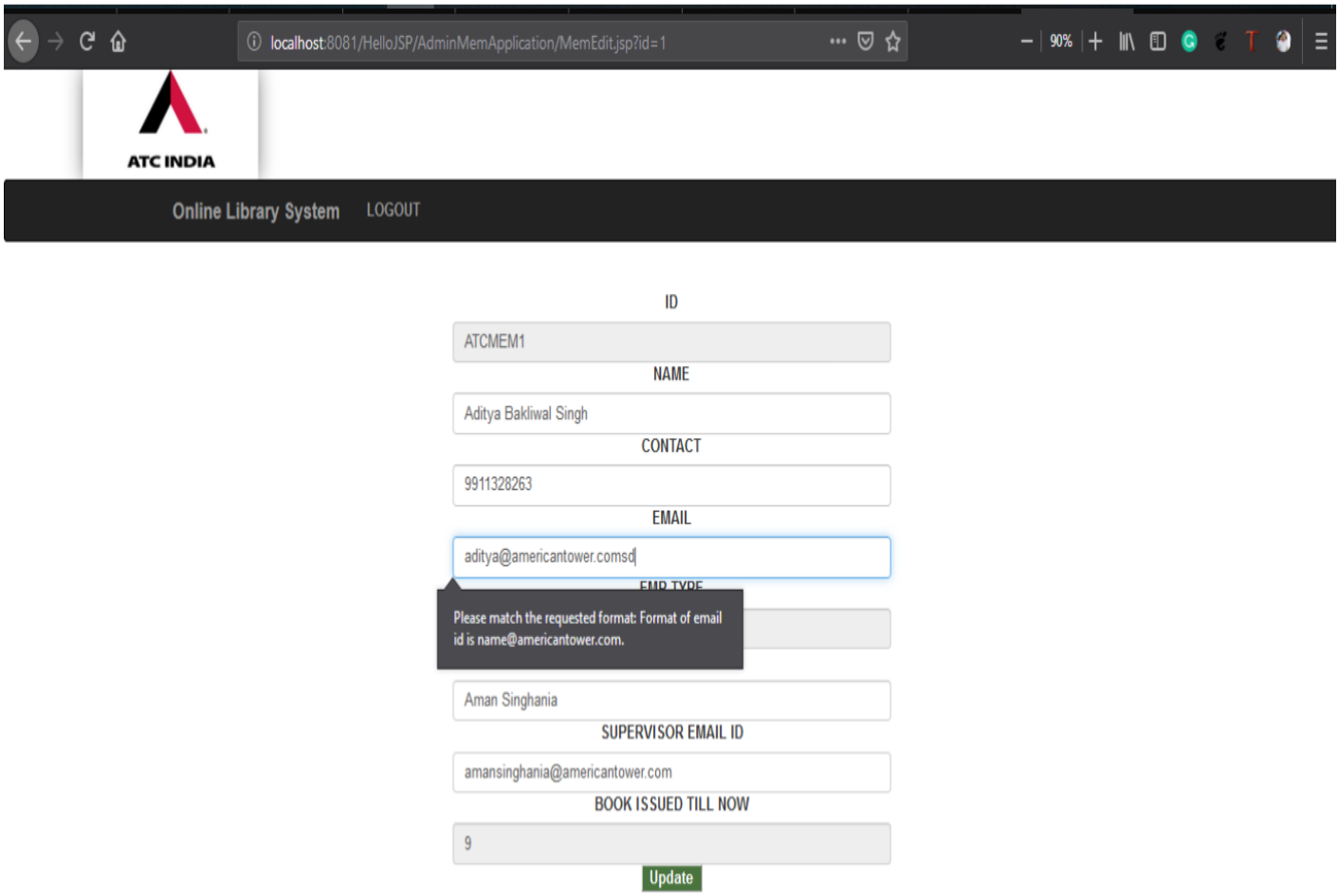
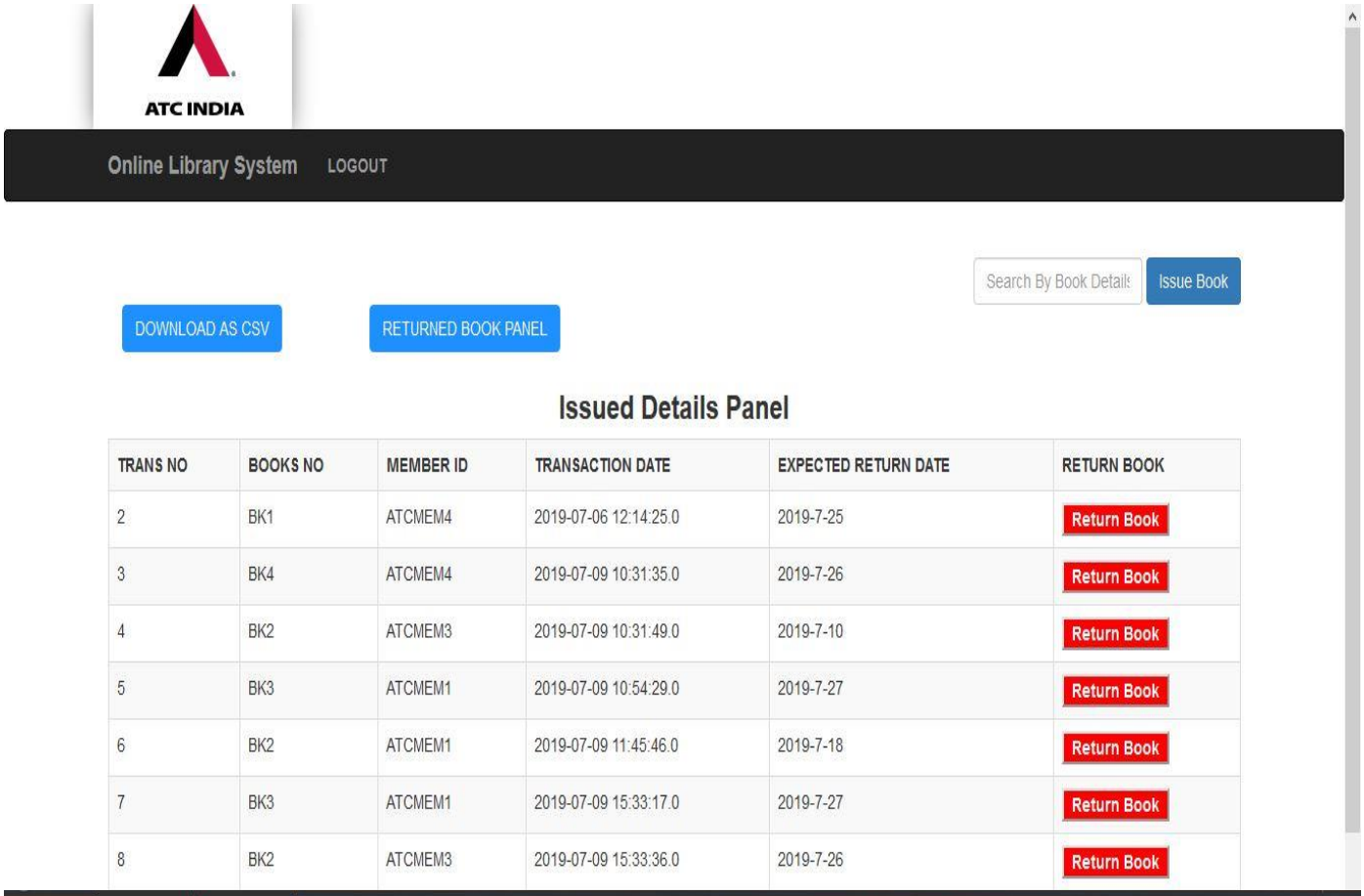
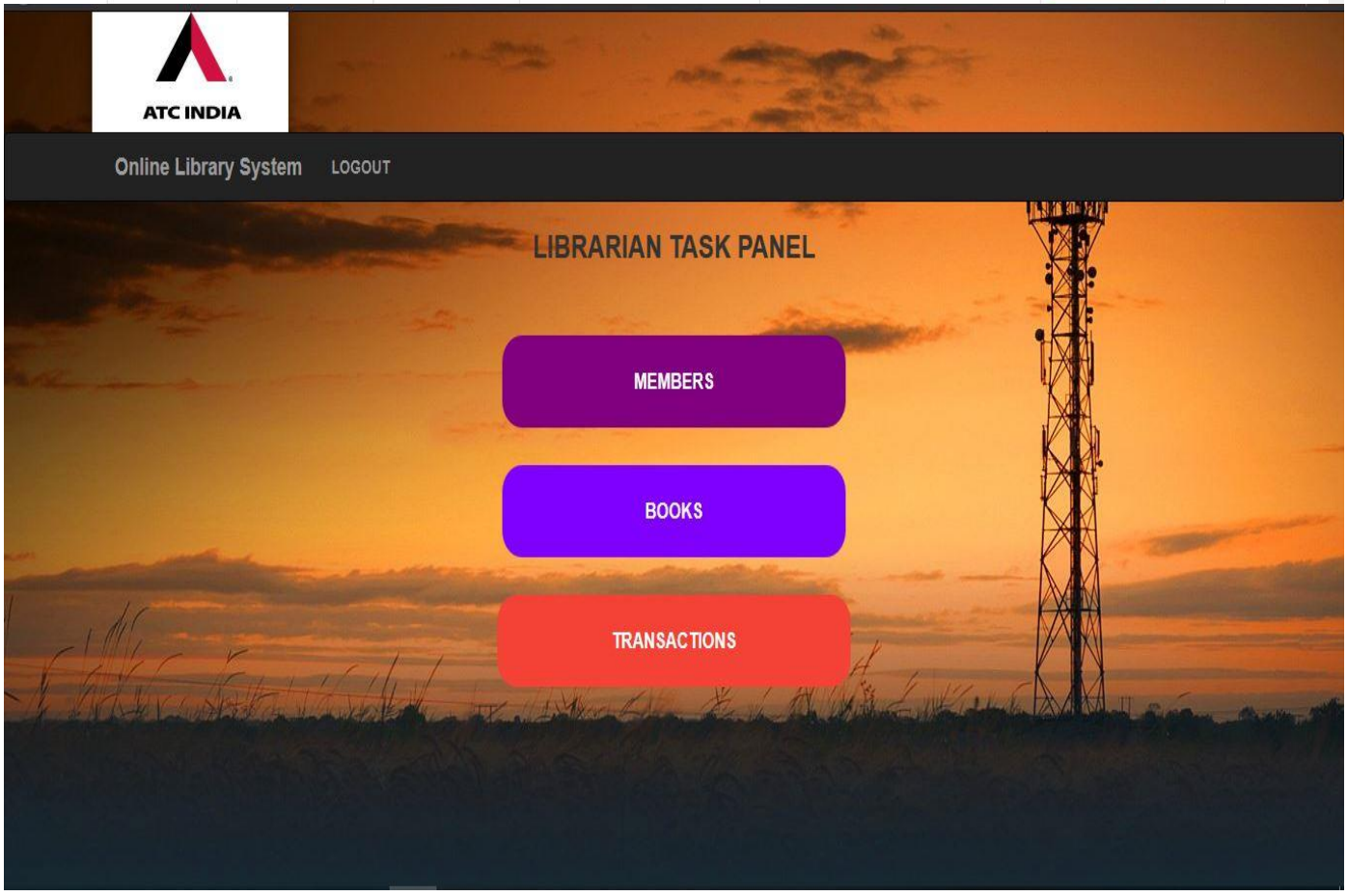
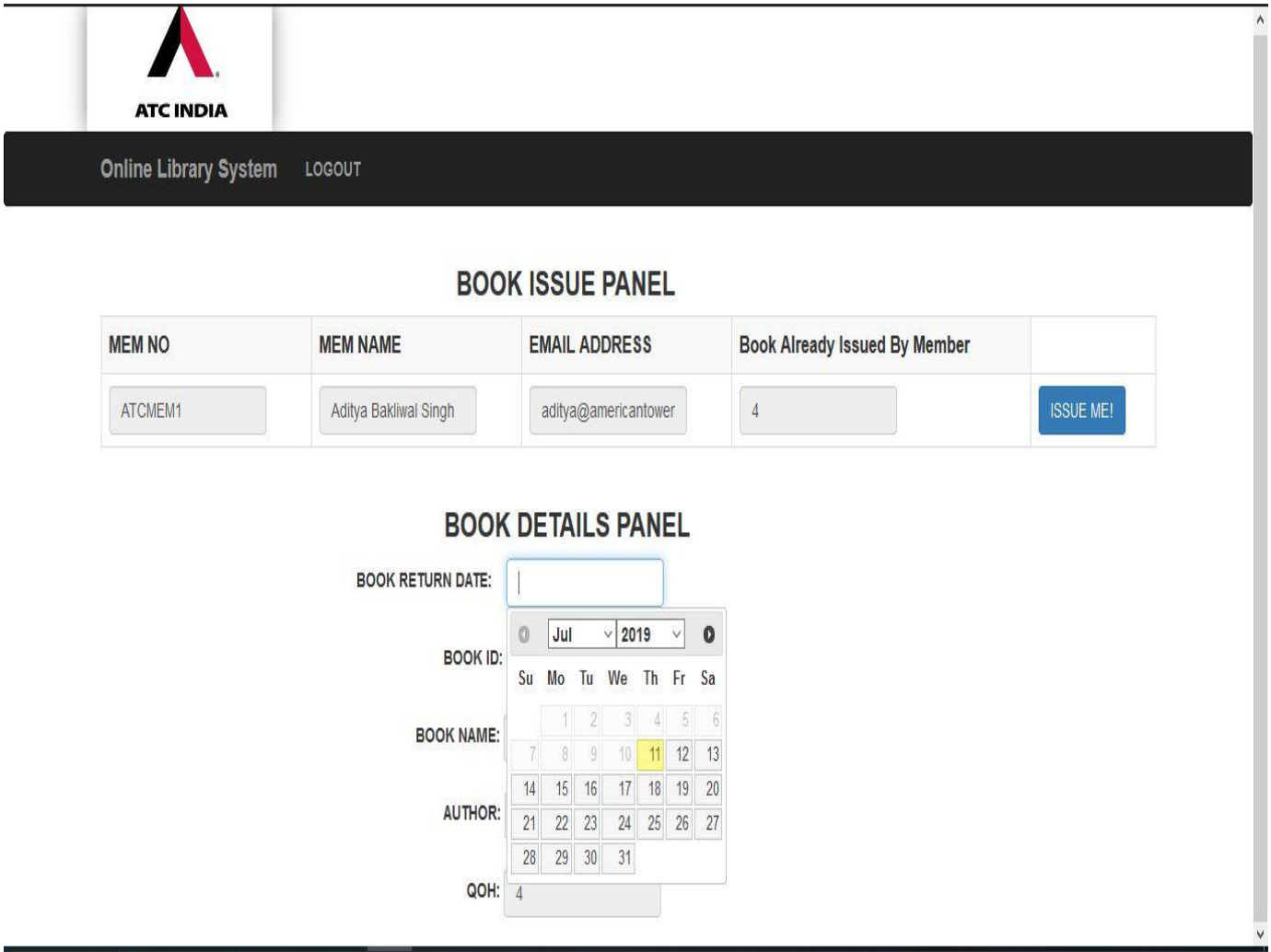
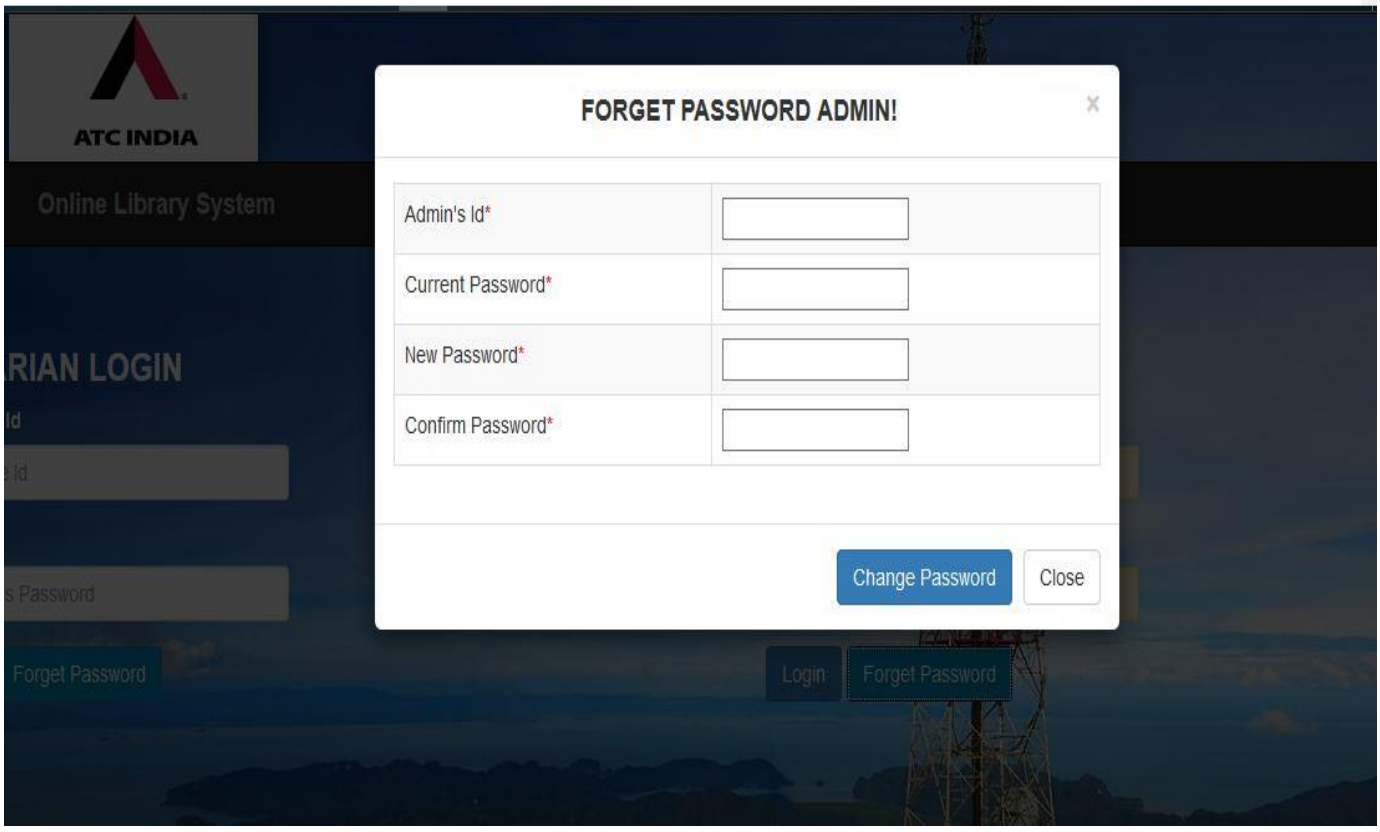
ATCMEM2	Aayushi Singh	8146582353	aayushi@americantower.com	Permanent	Aakash Singh	aakashsingh@americantower.com	1	1	0	Edit	Mark As Deleted
ATCMEM3	Rohan Chandra	9810541189	rohan@americantower.com	Contract	Amrinder Singh	amrinder@americantower.com	2	0	2	Edit	Mark As Deleted
ATCMEM4	Sonal Ranjan Chandra	9810541189	sonal@americantower.com	Contract	Rohit Kumar Singh	rohit@americantower.com	2	0	2	Edit	Mark As Deleted
ATCMEM5	Karan Thakur	9717097707	karan@americantower.com	Permanent	Rahul Chandra	rahul@americantower.com	0	0	0	Edit	Mark As Deleted
ATCMEM6	Nikhil Thomas	9876543210	nikhil@americantower.com	Contract	Subhashree Singh	subhashree@americantower.com	2	2	0	Edit	Mark As Deleted




ATC INDIA
Online Library System
LOGOUT
Search By Book Details
Issue Book
DOWNLOAD AS CSV
RETURNED BOOK PANEL
Issued Details Panel
TRANS NO
BOOKS NO
MEMBER ID
TRANSACTION DATE
EXPECTED RETURN DATE
RETURN BOOK
2 BK1 ATCMEM4 2019-07-06 12:14:25.0 2019-7-25 Return Book
3 BK4 ATCMEM4 2019-07-09 10:31:35.0 2019-7-26 Return Book
4 BK2 ATCMEM3 2019-07-09 10:31:49.0 2019-7-10 Return Book
5 BK3 ATCMEM1 2019-07-09 10:54:29.0 2019-7-27 Return Book
6 BK2 ATCMEM1 2019-07-09 11:45:46.0 2019-7-18 Return Book
7 BK3 ATCMEM1 2019-07-09 15:33:17.0 2019-7-27 Return Book
8 BK2 ATCMEM3 2019-07-09 15:33:36.0 2019-7-26 Return Book


ATC INDIA
Online Library System
LOGOUT
LIBRARIAN TASK PANEL
MEMBERS
BOOKS
TRANSACTIONS


ATC INDIA
Online Library System
LOGOUT
BOOK ISSUE PANEL
MEM NO
MEM NAME
EMAIL ADDRESS
Book Already Issued By Member
ATCMEM1
Aditya Bakliwal Singh
aditya@americantower
4
ISSUE ME!
BOOK DETAILS PANEL
BOOK RETURN DATE:
BOOK ID:
BOOK NAME:
AUTHOR:
QOH:
4
Jul
2019
Su Mo Tu We Th Fr Sa
1 2 3 4 5 6
7 8 9 10 11 12 13
14 15 16 17 18 19 20
21 22 23 24 25 26 27
28 29 30 31


ATC INDIA
Online Library System
RIAN LOGIN
Forget Password
Login
Forget Password
FORGET PASSWORD ADMIN!
Admin's Id*
Current Password*
New Password*
Confirm Password*
Change Password
Close

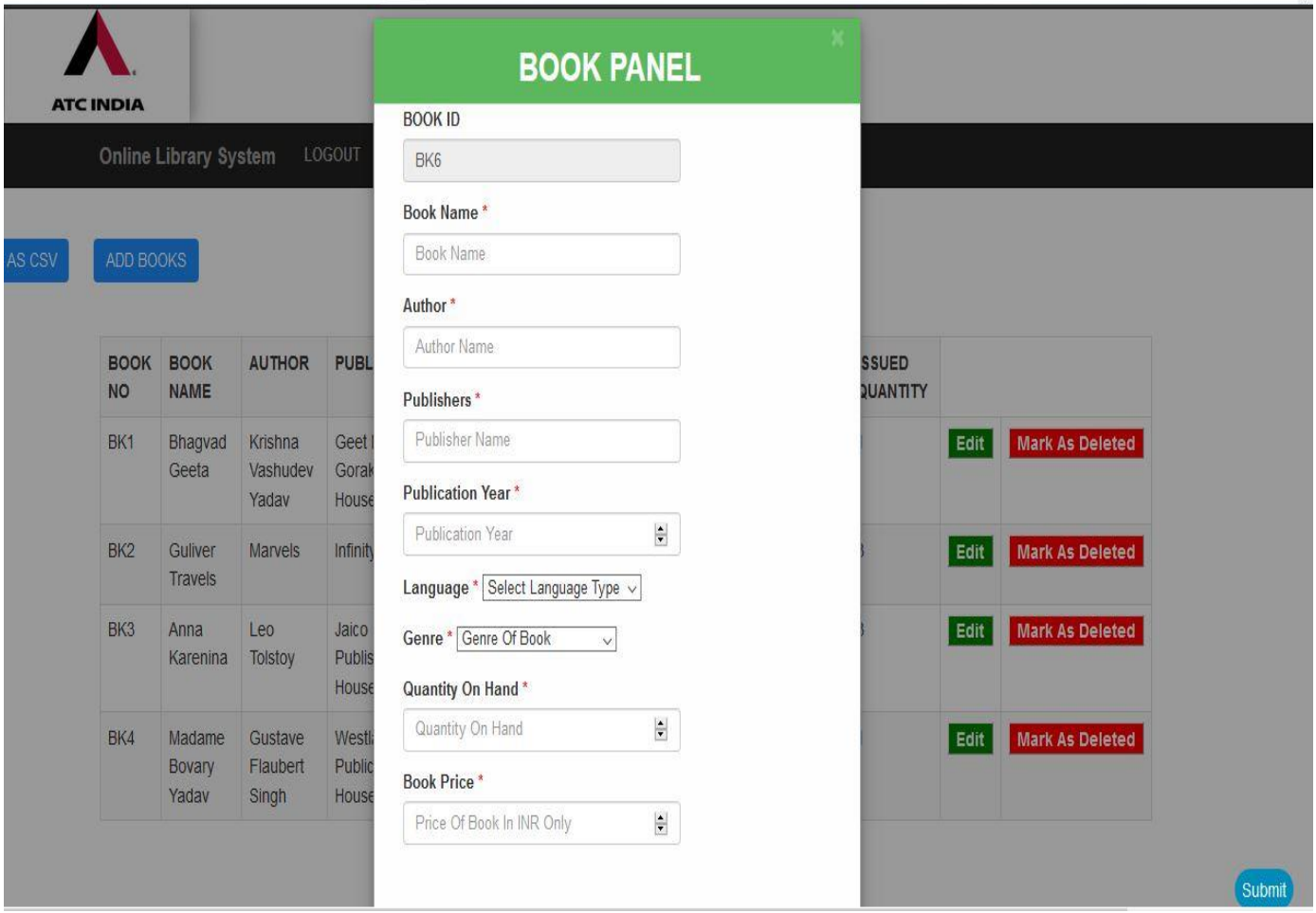
ATC INDIA

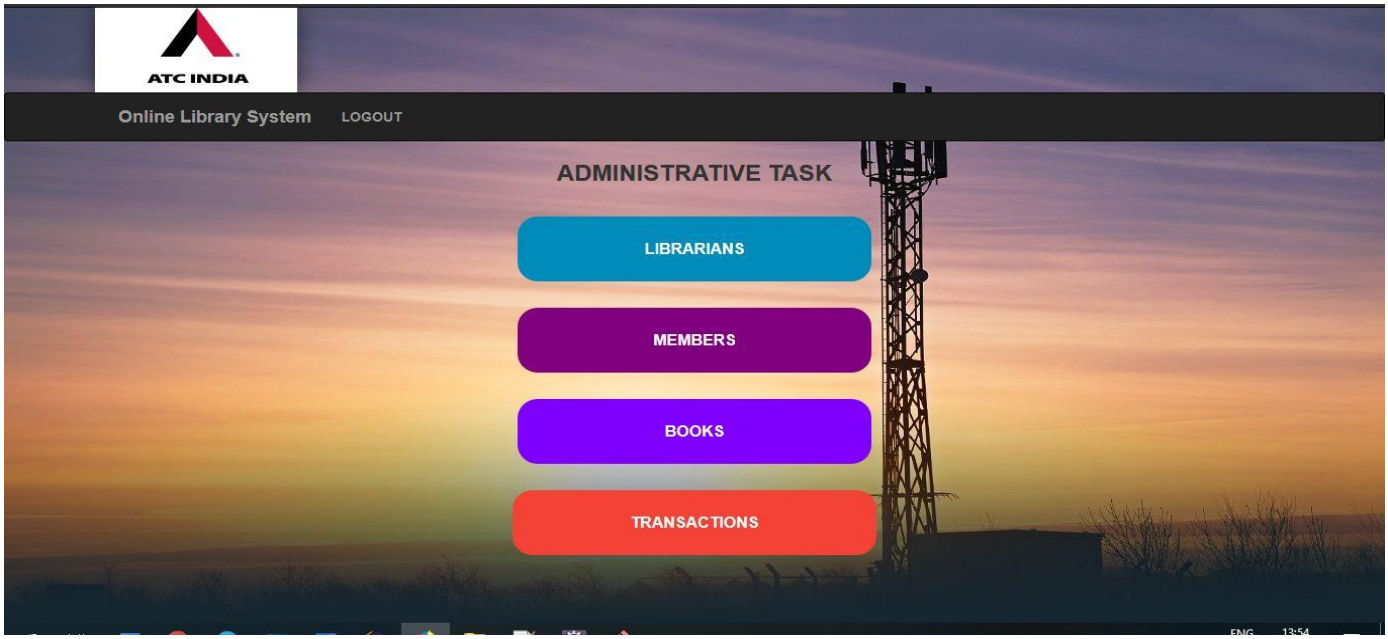
Online Library System LOGOUT

DOWNLOAD AS CSV ADD BOOKS

BOOK SECTION

BOOK NO	BOOK NAME	AUTHOR	PUBLISHER	PUBLICATION YEAR	LANGUAGE	GENRE	QUANTITY ON HAND	ISSUED QUANTITY		
BK1	Bhagvad Geeta	Krishna Vashudev Yadav	Geet Press Gorakhpur House	1990	Hindi	Religous	4	1	Edit	Mark As Deleted
BK2	Guliver Travels	Marvels	Infinity Wars	2019	English	Science/Fiction	2	3	Edit	Mark As Deleted
BK3	Anna Karenina	Leo Tolstoy	Jaico Publishing Houses	2019	English	Coding	2	3	Edit	Mark As Deleted
BK4	Madame Bovary Yadav	Gustave Flaubert Singh	Westland Publications House	2019	English	Health	100	1	Edit	Mark As Deleted




ATC INDIA
Online Library System
LOGOUT
ADMINISTRATIVE TASK
LIBRARIANS
MEMBERS
BOOKS
TRANSACTIONS

CHAPTER 4 FUTURE SCOPE

4.1 FUTURE SCOPE

The future prospect as follows:

1. Improvisation in code so that the web app can handle more traffic easily.
2. Making web app more attractive.
3. Fix bugs

References:

1. W3 School For Basic HTML and CSS.
2. JavaTPoint for the JSP and MySql based integeration and problems.
3. Q&A regarding the project and bugs fixes.
4. Youtbe for finding the integeration of different visualisation through JSON in JSP.