



Lend Indeed

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MAD-314

Table of Contents

1. Introduction.....	2
2. Project Description.....	3
2.1. Planned Sprint Timeline.....	3
3. Requirements	4
3.1. Functional Requirements.....	4
3.2. Non-functional Requirements.....	5
4. UI Mock-Ups	10
5. User Stories.....	14
6. Product Backlog.....	16
7.Planned Sprints.....	18
8. Use Case Diagram.....	19
9. Fully Dressed Use Case.....	21
10. Activity Diagram.....	22
11. Sequence Diagram.....	23
12. Class Diagram.....	24

Introduction

1. Introduction

The purpose of this project is to create an Android Mobile Application which will help the students (who will be the user of our application) to borrow the items such as Books, Computers, laptops, etc. Students and Admin will be the primary users of our application.

Admin and Students both have their own login access and both have their own different dashboards and features. The purpose of this documentation is to define the overall project specification as well as the general direction of the prototype development. In this case, the targeted readers of the document are the stakeholders, who are interested in the utilization of the application as well as the developers that will be creating the application.

PROJECT DESCRIPTION

2. Project Description

The Lend System Application is built to let the student find the items and borrow it according to their desire. The application is being developed on Android Studio using java language. Xml files are also used just to design for application. For connectivity, we will use firebase to store the information and data into it.

Throughout the application development, we will use Scrum Agile and also use Github. We will divide into four sprints and the time period of each sprint will be two weeks. After two weeks, we will present the progress to our coordinator and get feedback from them.

2.1 Planned Sprint Timeline

Sprints	Start Date	End Date
1	05-05-2020	24-05-2020
2	25-05-2020	07-06-2020
3	08-06-2020	28-06-2020
4	29-06-2020	14-07-2020

REQUIREMENTS

3. Requirements

3.1. Functional Requirements:

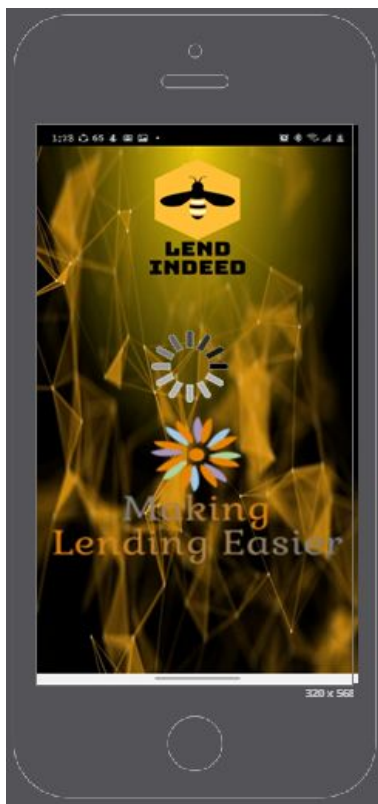
ID	Description	Comments
F01	The application will have a Splash screen.	To show the logo.
F02	The application will have a Login screen and Sign-up page for both admins as well as for users.	To access the account for application and password must be greater than 8.
F03	The application will have a page where users can see their information like student id, total no of items, no of borrowed items, favorite.	To display information for students.
F04	The application will have a page to recover their password in case of forgetting the password.	To secure the account for users and admin.
F05	The user will get the notification like when will the items again be available if the item will be borrowed by someone but not see the name of the borrowed person.	To get updated with an application.
F06	The student will also search for a particular item by filters like date, type, and request admin for a particular item.	A list of items will be displayed and filter out items.
F07	The application will have a page where the admin can manage all the data like a list of items and borrowed items and a list of students etc.	Allow them to manage and save data in files.
F08	The application will show the deadline of borrowed items in the student profile as well as administration data record.	Allow returning items before deadlines.

3.2 Non-functional Requirements:

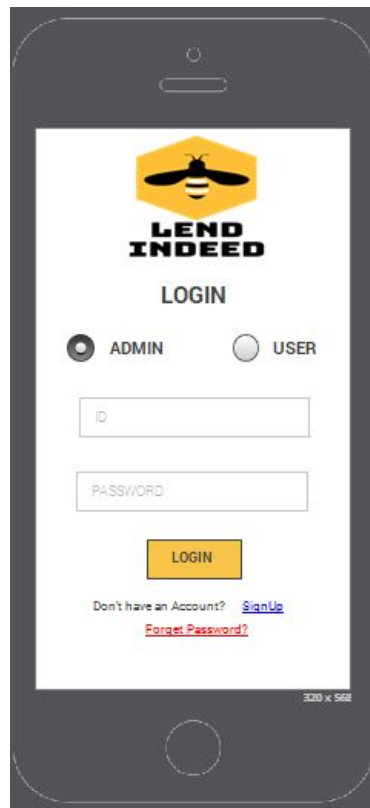
ID	Description	Comment
NFR-01	The user and admin confirm the email address to protect data from unauthorized users.	Other Operating System not covered
NFR-02	The users will have their own Android Operating System.	Other operating must will not work
NFR-03	Internet connection is must before accessing application.	To avoid unnecessary charges
NFR-04	The system will be able to logout automatically when the user or admin is no longer using an app.	For security
NFR-05	The system will be accessible by all the registered members.	Accessibility

MOCKUPS

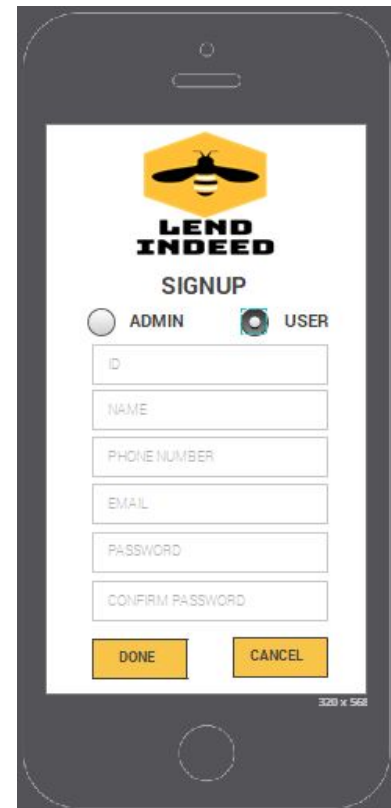
4. Mockups



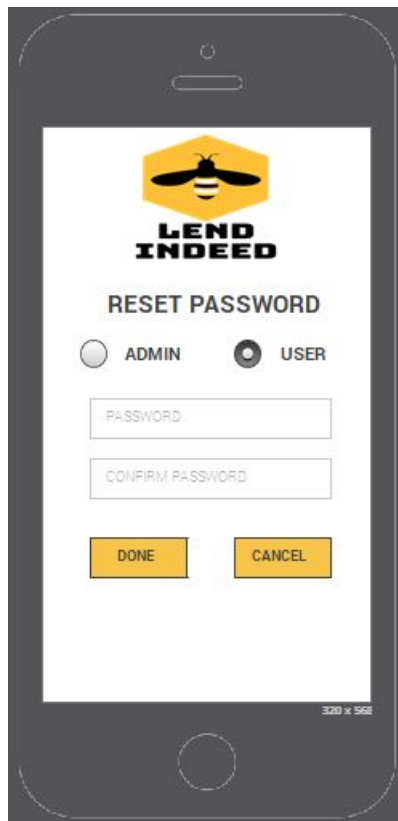
SPLASH PAGE



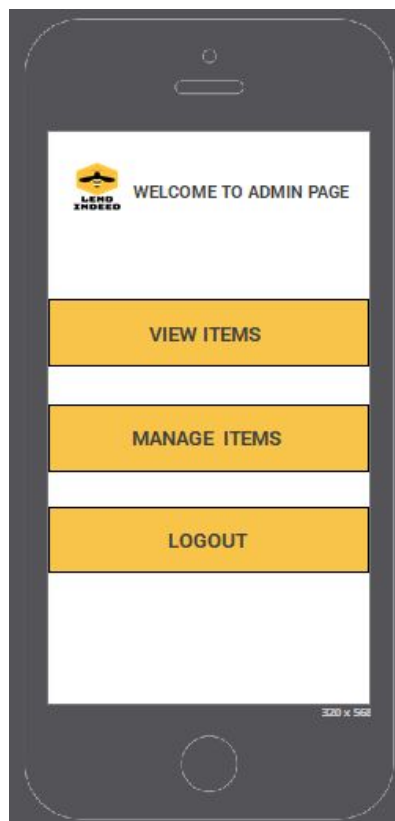
LOGIN PAGE



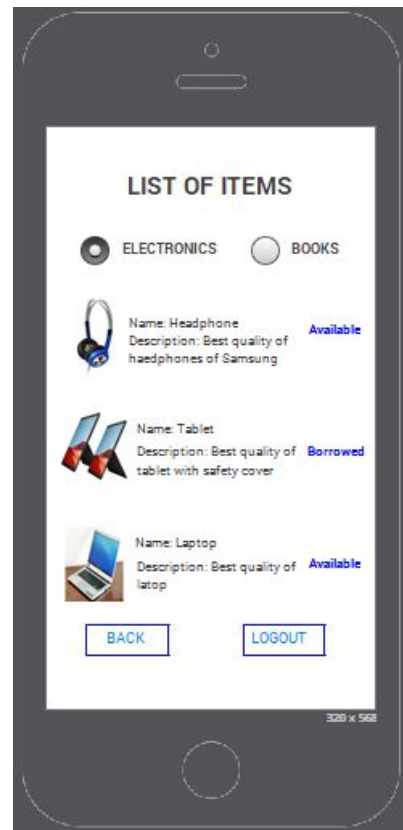
SIGNUP PAGE



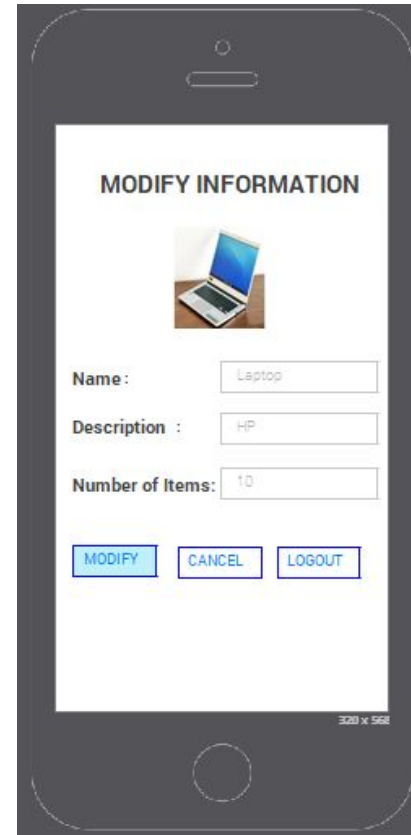
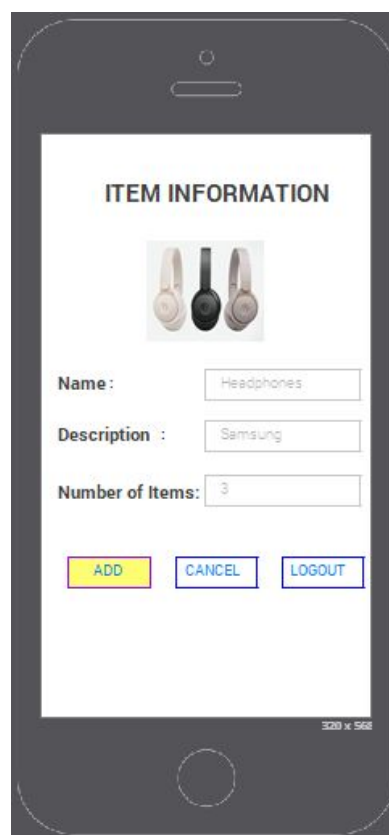
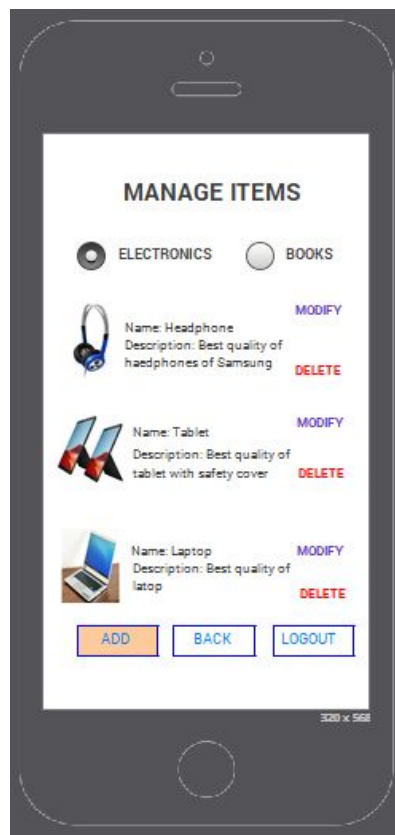
RESET PASSWORD PAGE



ADMIN PAGE



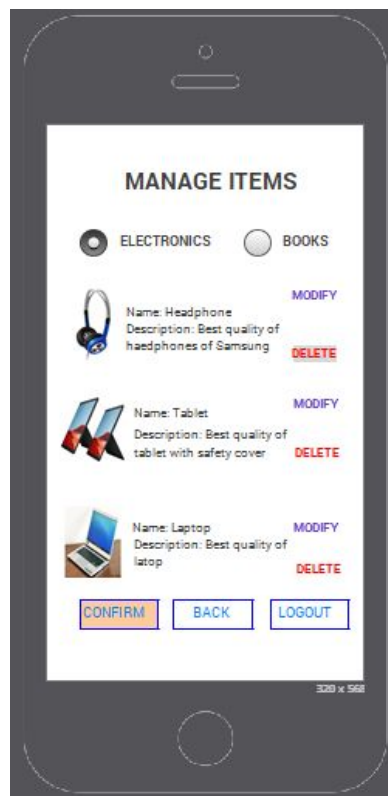
ADMIN CAN VIEW ITEMS



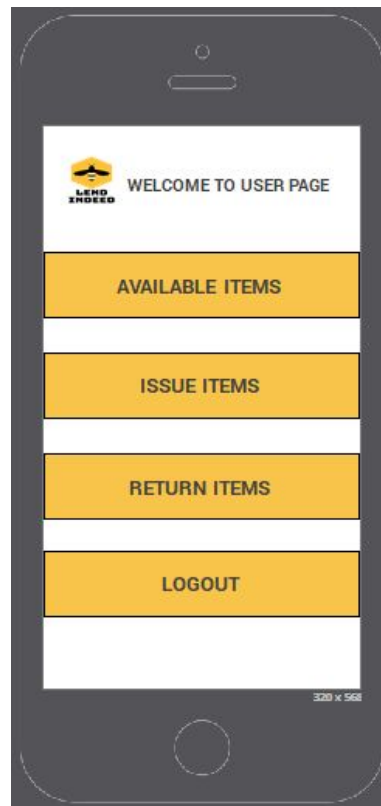
ADMIN CAN MANAGE ITEMS

ADMIN CAN ADD ITEMS

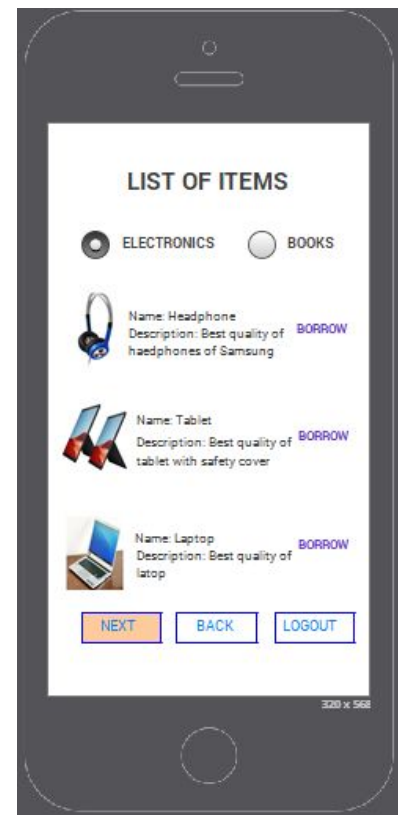
ADMIN CAN MODIFY ITEM



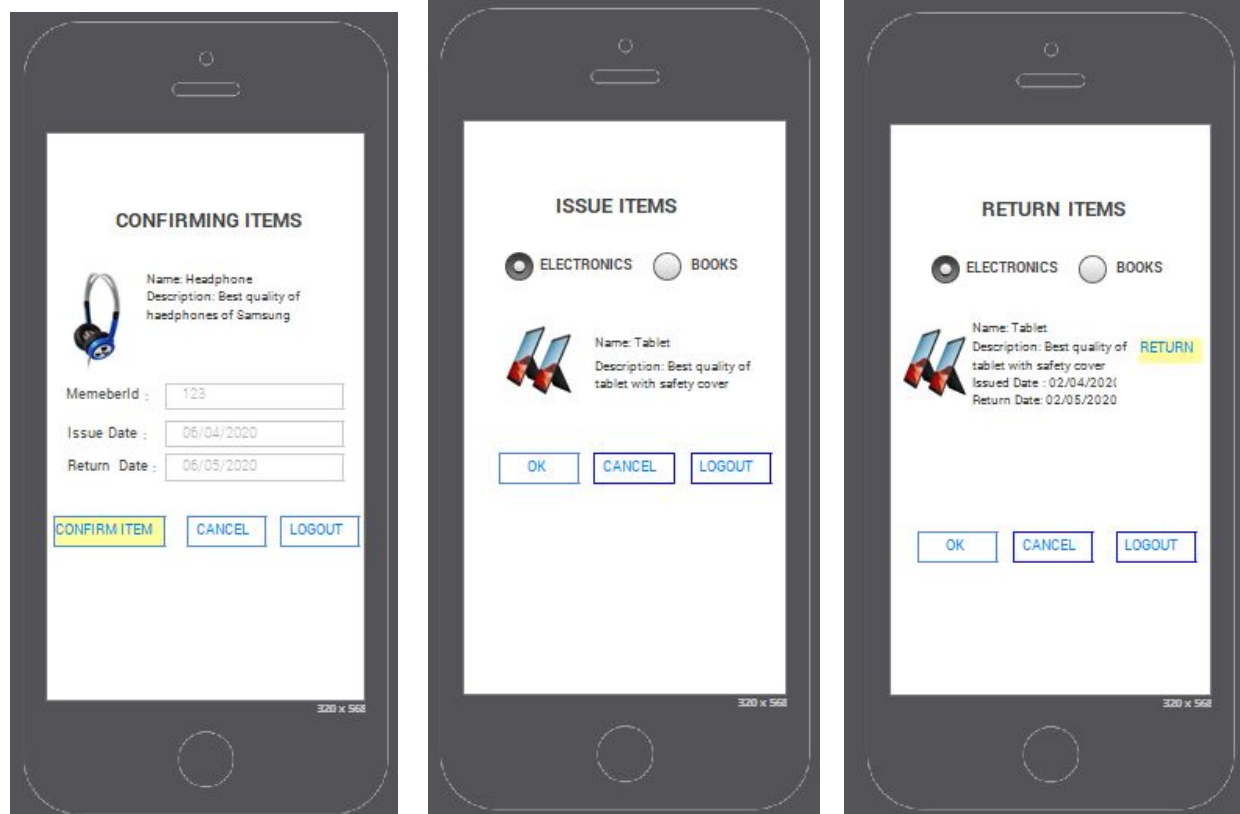
ADMIN CAN DELETE ITEM
ITEMS



USER PAGE



USER CAN SEE AVAILABLE
ITEMS



USER CONFIRMING ITEMS USER CAN SEE ISSUED ITEM USER CAN RETURN ITEMS

USER STORIES

5. User Stories

User Story	US-01
Name	As an admin, I want to register so that I can authenticate myself and create an account for the application.
User Story Point	13
Priority	Highest

User Story	US-02
Name	As an Admin, I want to add some new items so that new items will show in my application every time.
User Story Point	5
Priority	Highest

User Story	US-03
Name	As a user, I want to sign up so that I can create an account for this application.
User Story Point	5
Priority	Medium

User Story	US-04
Name	As a user, I want to login so that I can access the application.
User Story Point	5
Priority	Highest

User Story	US-05
Name	As an Admin, I want to get notification when new users sign-up so that I can manage their profile.
User Story Point	3
Priority	Highest

User Story	US-06
Name	As a user, I want to see all the lists of available items so that I can choose items according to my preference.
User Story Point	13
Priority	Medium

User Story	US-07
Name	As an admin, after sign up of users I want a page where I can verify trustworthy users so that I can secure my account.
User Story Point	13

Priority	Highest
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User Story	US-08
Name	As an admin, I want to modify some items so that items can be up to date every time.
User Story Point	5
Priority	Medium

User Story	US-09
Name	As a user, I want a logout page so that I can logout from the application and secure my account.
User Story Point	5
Priority	Low

User Story	US-10
Name	As a user, I want to request the administration to lend particular selected items so that I can borrow items.
User Story Point	5
Priority	Medium

User Story	US-11
Name	As an admin, I want to be able to send notifications to users to give confirmation of selected lent items so that I can manage all the records of users.
User Story Point	13
Priority	Highest

User Story	US-12
Name	As a user, I want to see my profile of selected items so that I can return lend items before the due date.
User Story Point	3
Priority	Low

User Story	US-13
Name	As an Admin, i want to delete some items from the list so that unwanted items will be removed from record.
User Story Point	5
Priority	Medium

PRODUCT BACKLOG

6. Product Backlog

User Story	Name	User Story Point	Priority
US-01	As an admin, I want to register so that I can authenticate myself and create an account for the application.	13	Highest
US-02	As an Admin, I want to add some new items so that new items will show up in my application every time.	5	Highest
US-03	As a user, I want to sign up so that i can create an account for this application.	5	Medium
US-04	As a user, I want to login so that I can access this application.	5	Highest
US-05	As an Admin, I want to get notification when new users sign-up so that I can manage their profile.	3	Highest
US-06	As a user, I want to see all the lists of available items so that I can choose items according to my preference.	13	Medium

US-07	As an admin, after sign up of users I want a page where I can verify trustworthy users so that I can secure my account.	13	Highest
US-08	As an admin, I want to modify some items so that items can be up to date every time.	5	Medium
US-09	As a user, I want a logout page so that I can logout from the application and secure my account.	5	Low
US-10	As a user, I want to request the administration to lend particular selected items so that I can borrow items.	5	Medium

US-11	As an admin, I want to be able to send notifications to users to give confirmation of selected lent items so that I can manage all the records of users.	13	Highest
US-12	As a user, I want to see my profile of selected items so that I can return lend items before the due date.	3	Low
US-13	As an Admin, i want to delete some items from the list so that unwanted items will be removed from the record.	5	Medium

Total User Story points		91	
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PLANNED SPRINT

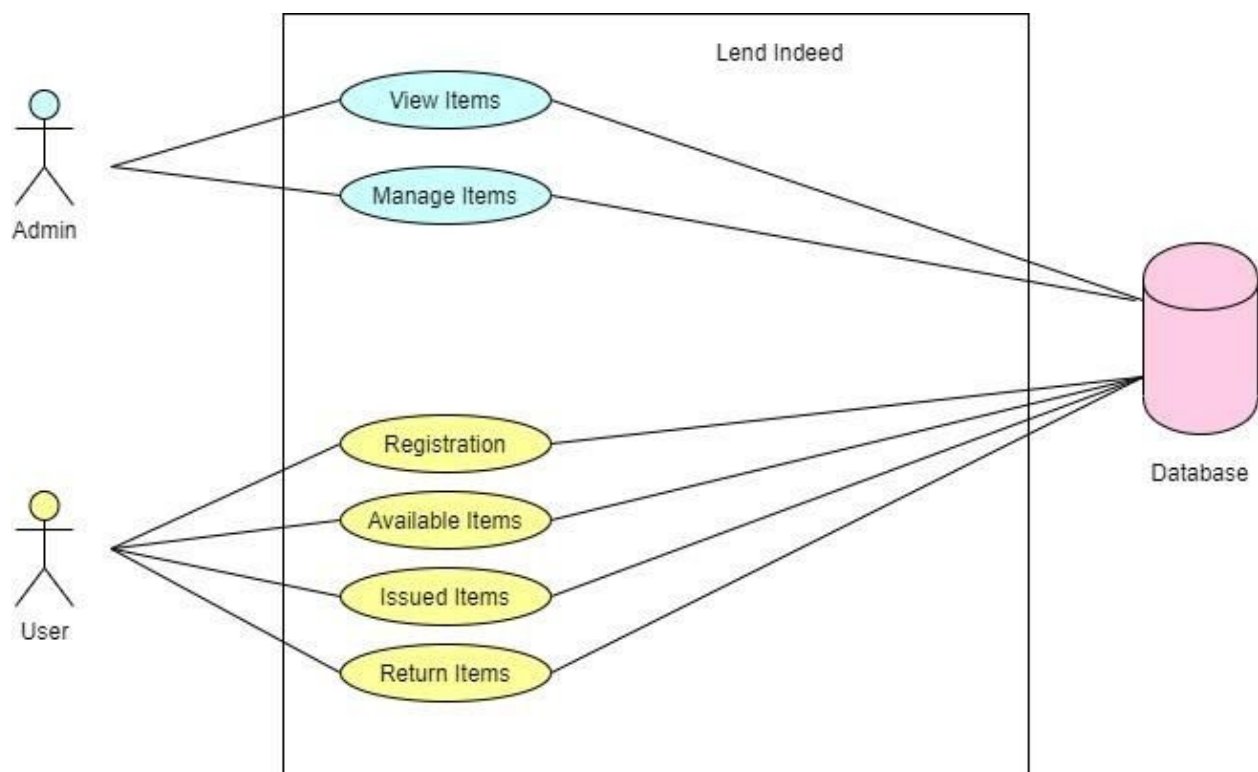
7. Planned Sprint

Sprint	User Stories	USP	Priority
Sprint 1	US-03:-As a user, I want to sign up so that I can create an account for this application.	5	Medium
	US-01:-As an admin, I want to register so that I can authenticate myself and create an account for the application.	13	Highest
	US-04:-As a user, I want a login page so that I can access this application.	5	Highest
Sprint 2	US-02:-As an admin, I want to add some new items so that new items will show in my application every time.	5	Highest
	US-05:-As an admin, I want to get notification when new users sign-up so that I can manage their profile.	3	Highest
	US-06:-As a user, I want to see all the list of available items so that I can choose items according to my preferences.	13	Medium
Sprint 3	US-07:-As an admin, after sign up of a user I want a page where I can verify trustworthy users so that I can secure my account.	13	Highest
	US-08:-As an admin, I want to modify some items so that items can be up to date every time.	5	Medium
	US-09:-As a user, I want a logout page so that I can logout from the application and secure my account.	5	Low
Sprint 4	US-10:- As a user, I want to request the administration to lend particular selected items so that I can borrow items.	5	Medium
	US-11:- As an admin, I want to be able to send notifications to users to give	13	Highest

	confirmation of selected lent items so that I can manage all the records of users.		
	US-12:- As a user, I want to see my profile of selected items so that I can return lend items before the due date.	3	Low
	US-13:- As an Admin, i want to delete some items from the list so that unwanted items will be removed from record.	5	Medium
	Total User Story Points	91	

USE CASE DIAGRAM

8. Use Case Diagram



FULLY DRESSED USE CASE

9. Fully Dressed Use Case

Use Case Name: User Registration

- Description: Describe the scenario where the user registers with the application by providing all the necessary details in order to borrow items.
- Actor: New User
- Pre-condition: User is not logged in.
- Extensions:
 - Username is already in use
 - Users are required to select another user name and password.
 - The two passwords are different
 - Member is requested to retype twice his/her password.
- Trigger: User selects the “Register User” link.
- Guarantee: Users become registered users.
- Main success scenario:
 - Users type a user name of his or her choice.
 - User type a password
 - User retype the password

Use Case Name: Delete Items

- Description: This use case describes the scenario where admin delete items in the app.
- Actor: Admin

- **Preconditions:** Item was previously saved to the system and admin needs to permanently delete.
- **Post-Conditions:** Item is no longer available anywhere in the system.
- **Extends:** None
- **Alternative Path** - The admin does not confirm Deletion

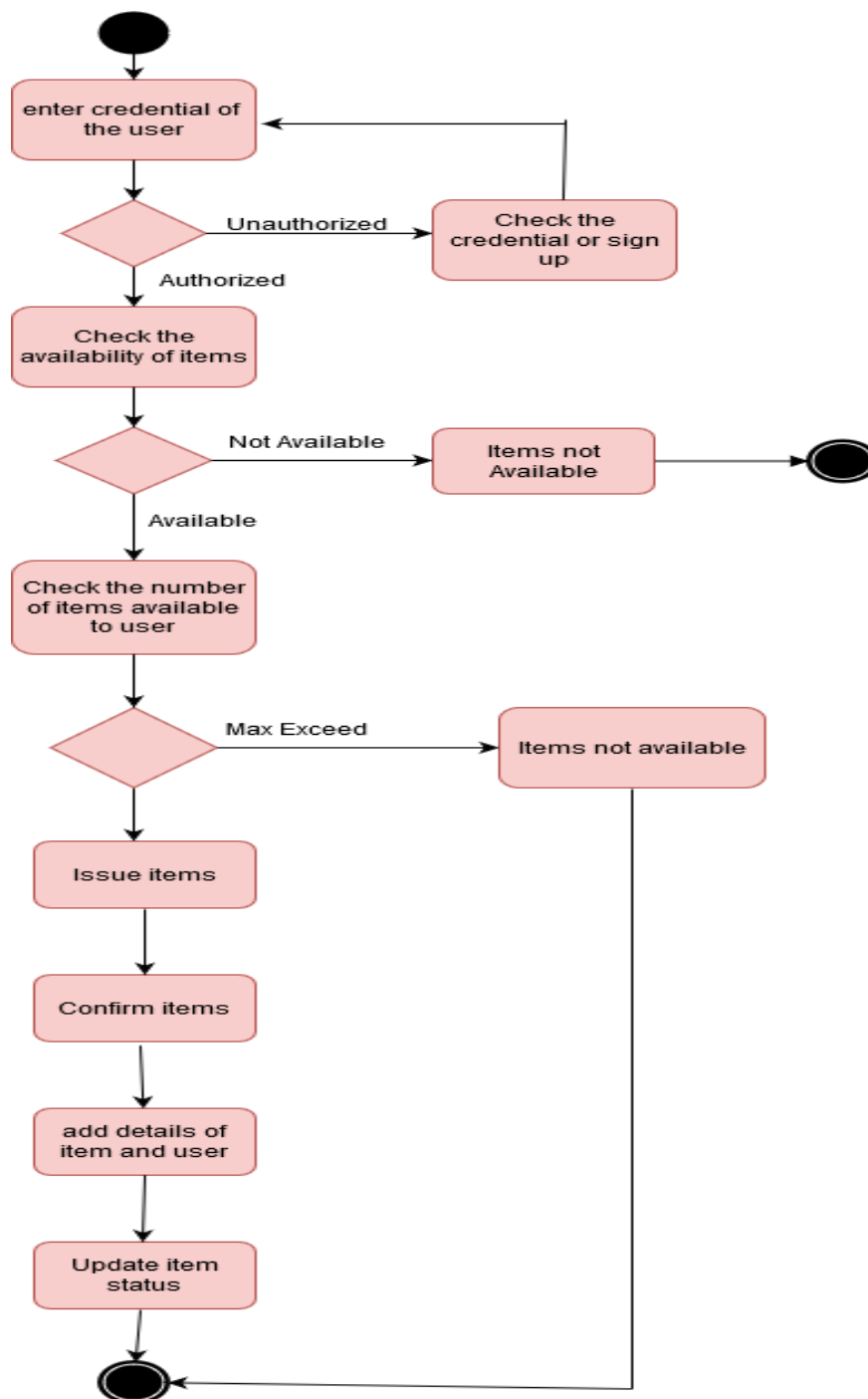
Use Case Name: Add Items

- **Description:** This use case describes the scenario where the admin adds an item in the app.
- **Actor:** Admin
- **Preconditions:** Item was not present in the system and admin needs to add.
- **Post-Conditions:** Item is available in the system.
- **Extends:** None
- **Alternative Path** - The admin does not confirm Addition.



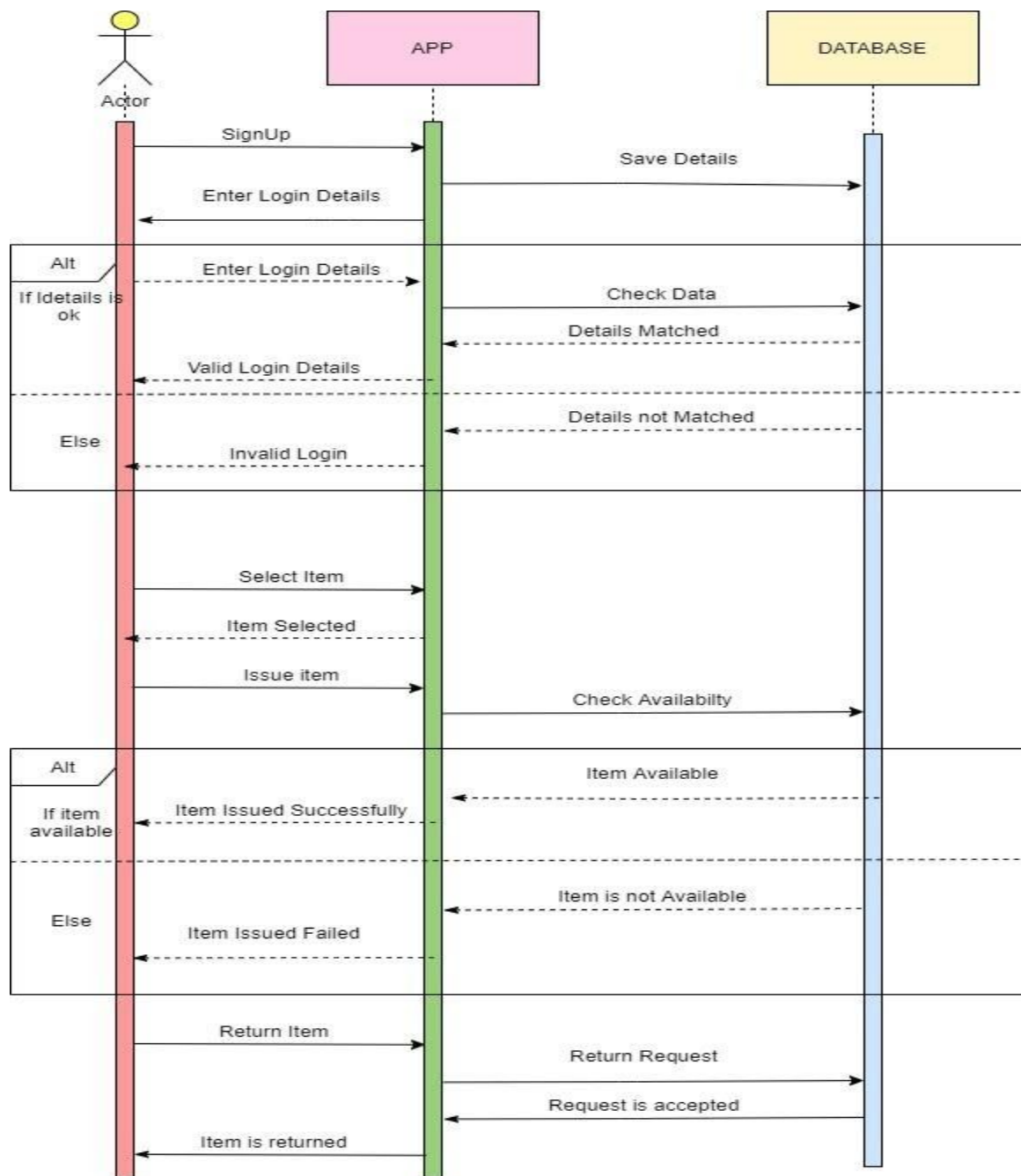
ACTIVITY DIAGRAM

10. Activity Diagram



SEQUENCE DIAGRAM

11. Sequence Diagram



CLASS DIAGRAM

12. Class Diagram

