

## Design Phase & Testing Phase Document :Book bank system.

### DOCUMENTATION OF USE CASE DIAGRAM

The actors in use case diagram are Admin, student, seller.

- The use cases are Registration, login, view books, post books, authenticate seller, authenticate student, Order books, search books, view ,cancel and return orders, submit and view feedback.
- The actors use the use case are denoted by the arrow
- The login use case checks the username and password for student, admin, seller
- The Registration use case is used by the student and seller for submitting details.
- The Authenticate seller use case is used by the admin for checking the membership of the seller.
- The Authenticate student use case is used by the admin for checking the membership of the student.
- The view books use case is used for getting the details of books based on id from database and then book details can be updated or deleted.
- The search books use case is used for getting the details of books based on id from database.
- The Post books use case is used by the seller for submitting details of books.
- Order books use case is used to order respective books and can also orders can be viewed, cancelled, returned, this updates number of purchasers.
- Submit feedback use case is used to submit the feedback and view feedback use case is used to view the feedback.

### DOCUMENTATION OF CLASS DIAGRAM

- **Student**-The student has attributes such as email id , password, first name, last name, address, phone no, country and operations are registration, login, order, search, feedback and logout. The student login and fill the details that are required

after logging in the student can search books and order then which proceeds to payment and also can submit feedback about book.

- **The Database**-The database has attributed such as name and operation is store. The purpose is to store the data.

- **Book**- The book has attributes such as author, name, price, edition and id and operations are display and purchase. The student login and fill the details that are required after logging in the student can search books then all books will be displayed and can also be ordered.

- **Admin**- Admin login and authenticate student and seller.

- **Seller** – The student has attributes such as email id ,password, Name, address and operations are registration, login, post books ,delete and update. The seller login and fill the details that are required after logging in the seller can post books and view them and also find number of purchasers and feedback of that purchasers and also can update and delete books.

- **Payment** – Payment has attributes such as Pay id, amount, Book id, date and operations as create ,cancel and return. The student login and fill the details that are required after logging in the student can order books which proceeds to payment that creates transaction. Based on students decision transaction can be cancelled and also returned.

## **DOCUMENTATION OF SEQUENCE DIAGRAM.**

- The student login and give his details and database store the details and search books and database displays books ,submits feedback which is stored in database and also orders books.

- The Admin Authenticates student and seller based on details submitted.

- The seller login and give his details and database store the details and post books which stores in database and request to view number of purchasers and feedback of selected book and database displays them and can also update details and delete books from database.

## **DOCUMENTATION OF COLLABORATION DIAGRAM**

- The student, admin, seller and database functions are show in sequence number.
- The seller and student first login the book bank system and submit details the admin verifies the details and then student orders and search for books. Seller will post and view purchasers and feedback of books.

## **DOCUMENTATION OF STATE CHART DIAGRAM**

- The states of the book bank system are denoted in the state chart diagram
- Login state represent authentication for login the book bank system.
- In this state, it checks whether the applicant has provided all the details that is required.
- In this diagram the initial state register can be of two ways one for seller and other for student.
- The seller registers ,login, post books , update or delete books and logout or login, select book , view purchasers ,feedback and logout which is final state.
- The student registers ,login, select book, submit feedback and logout or return book and logout or order book ,cancel order or proceed payment and logout which is final state.

## **DOCUMENTATION OF ACTIVITY DIAGRAM**

- The activities in the book bank system are registration, login, authenticate, post books, get books, view books.
- In registration student and seller enter details and if details are valid then they successfully registers.
- In the login activity student and seller give username and password and then login into the book bank system.
- In the authenticate activity admin authenticates seller and student and allows membership.

- In view books activity the seller view books by id and then view purchasers and feedback of book and also update and delete that book.
- In post books activity the seller will post book details which will be added to database.
- In Get books activity student search books by id and order books which may lead to payment, cancellation and return order and also submit feedback for book.

### **DOCUMENTATION OF COMPONENT DIAGRAM**

- The components in the book bank system are admin, student, seller.
- Student, seller, admin are dependent on book bank system are shown by the dotted arrow.

### **DOCUMENTATION OF DEPLOYMENT DIAGRAM**

- The device node is book bank system and execution environment node are student, seller, admin.