

Object Oriented Analysis & Design

Assignment: Deliverable 1

Group Members :

Muhammad Hassan	BSEF19A006
Muhammad Arif	BSEF19A027

Vision

Introduction:

There is a lot of hustle and bustle among people regarding their home interior design. They avoid multiple visits to different interior design companies and buying furnishing products. We provide all these problem solutions virtually where customers can design their home interior choosingly and get their required furniture and other things at their doorstep with all sets.

Positioning:

There is a huge gap in the market regarding online interior design services. This product will take on a huge market by its extended functionality like tracking and viewing design using a camera and joining multi-national furniture components.

StakeHolder Description:

Furniture companies like Canwood, La Galleria decore and Wood Masters and other companies can be the main stake which will be financing the product to increase its scope of brand. Other stakeholders are the web and application management team and the user of the application for which we are providing the facility.

High Level Goal:

We are providing non-crashing, fast, robust layout and process of the application to resolve issues like slow down of application upon load. We are using instance servers for storing the customers data and processing.

User Level Goal:

The following user goals will be fulfilled:

- **Furniture Companies:**
Upload new design, handle bookings and sales, update stock
- **System Administration:**
memberShips of customers, technical issues management, user issues management, logs
- **Architecture Engineer:**
Create Categories of design, Create every Category's furniture architecture.

Product Overview:

System will reside in furniture selling companies(secondary). If mobile terminals are used, they will be in close proximity to furniture companies. It will provide features and services to users and interact with other systems i.e. stock market.

Supplementary Specification and Major Requirements:

Performance:

- The efficient algorithm
- Less use of third party apps
- Our own resources

Supportability:

- Cross Platform Development
- Support at different merchants
- Pacific supportive domains

Usability :

- Graphic Designing
- UI/UX
- Images of content
- Content Writing

Reliability:

- Security
- Error handling
- Server Optimization
- Location specific domain and subdomains
- Mail server optimization
- Good end points

Feature List:

- House, Offices and room Categories (Floor Plans)
- Furniture Categories
- Canvas availability for design
- Architecture engineer availability for automated designs
- Subscriptions
- Promotion Mails
- Discounts
- Online Payment Facility
- Cash on delivery facility
- Return HAndles
- Insurance

Glossary

Customer User : it is the common user who wants to create designs to check which furniture and decorative items suit best for his room, office or House.

Furniture Brand : Furniture Brand covers all the furniture brands who want to promote their items on our platform.

Domain Rules

- **Following OOA**
 - Identifying
 - Organizing objects by creating diagrams
 - Defining behaviour of objects
 - How objects interact
- **Following OOD**
 - Creating relatively design of objects after analysis
- **Following OOP**
 - Proceeding programing using OOP concepts Encapsulation is Data Hiding
 - Copyrights
 - Licencing
 - Inheritance
 - Polymorphism
 - Generalization and specialization
 - Link and association
 - Aggression and Composition

Feasibility

- **TimeLine:**

We are using modern iterative and incremental technique scrum which implements 2-4 week period iteration to retain real-time deadline span and using de-scoping technique to avoid time problems in development
- **Technical:**

We are using the most advanced emerging and development methods and implementation language i.e Java and EC-to-Instance servers which are flexible and supported to be updated in future. Product has greater flexibility regarding future advancement.
- **Financial:**

The product will benefit stake-holder because it is a unique and unless competition product in the market. Users will get benefits by getting different discounts and different new designs by companies and will get everything on doorstep.

Actors, Goals and Use Cases:

Actor	Goal
Primary Actors	
Customer User	Create designs View Designs Log In / Sign Up View Scene Buy Items
Furniture Brand	Upload new Furniture element View All furniture Elements Delete Elements Edit Elements Manage Orders Log In / Sign Up
Secondary Actors	
Web Management	Manage all furniture brands Manage All Customers Manage Technical Issues Manage User's Issues Login in /sign up
Architect	Create designs in 3d Format Edit Design Log In / Sign Up
Off-Stage	
Payment Gateway	Payment processing

Casual Format of Use Cases:

Create Design:

To create new design and new design is made by this way create a boundary wall of your room or school etc and then he import different elements and complete the design by selecting door, wall and other furniture etc;

View Designs:

View Designs means that to view all the old designs made by the user. It will show all the old files to the user and then upon selecting the file will be sent to the design editor and then the editor will open the file and adjust the canvas.

Log In / Sign Up

Users can login to the system and if he/she does not have an account he/she can create a new account either using email or any other account like google, twitter etc.

View Scene

There will be a camera on canvas which shows the picture of a scene at specific locations. If we change the location or position of the camera the picture of the scene will also change.

Upload new Furniture element:

Furniture brands can upload new furniture elements. Furniture elements will have their own dimensions that should be compulsory and one image and 3D drawing will be required to upload a new design.

View All furniture Elements:

Brand Furniture can view all of his furniture elements and can manage them.

Manage all furniture brands:

Web management team can view the list of all furniture brands and their designs and can manage them.

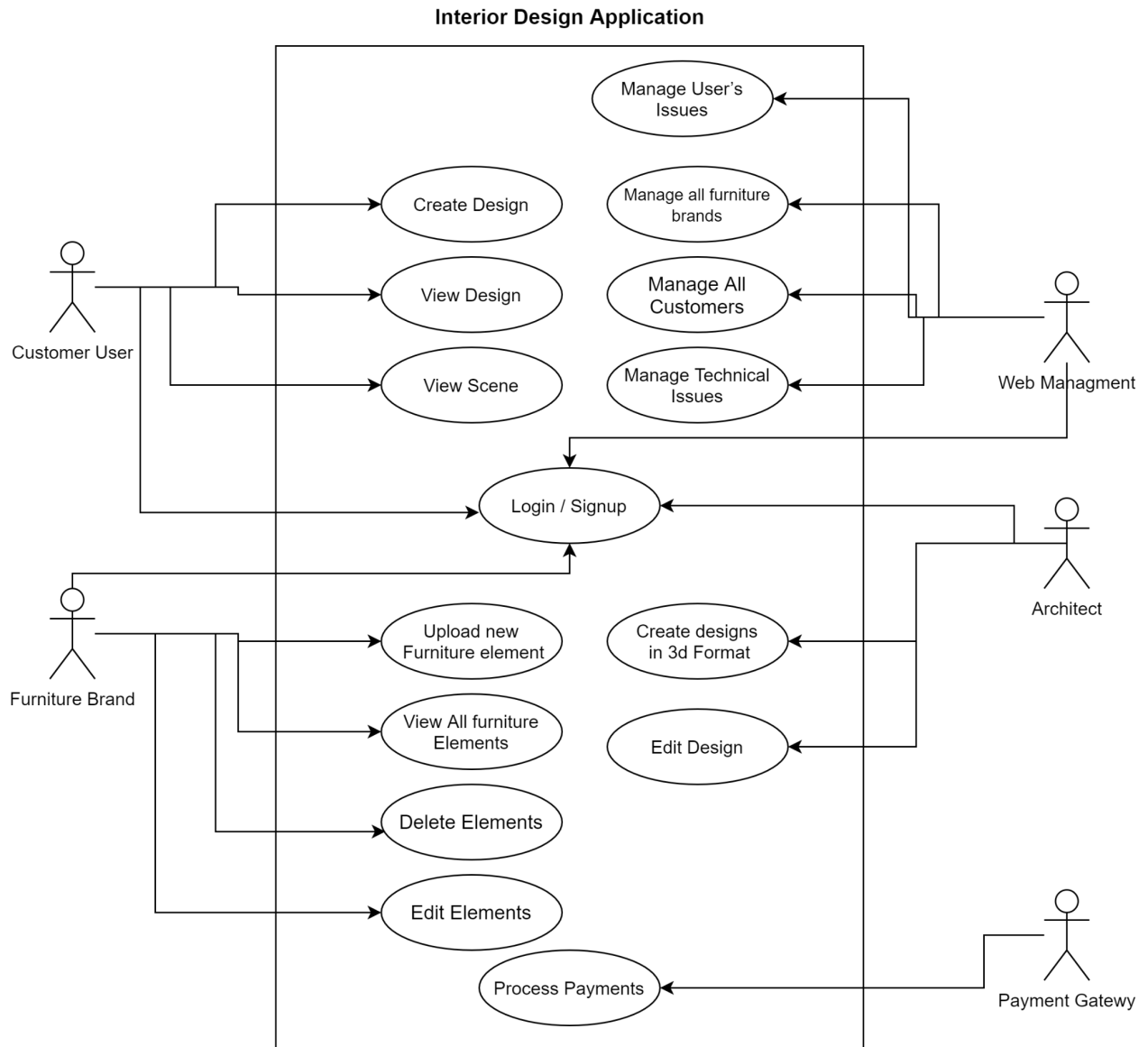
Manage All Customers

To manage all the customers who create designs for the house and offices and other purposes.

Manage Technical Issues:

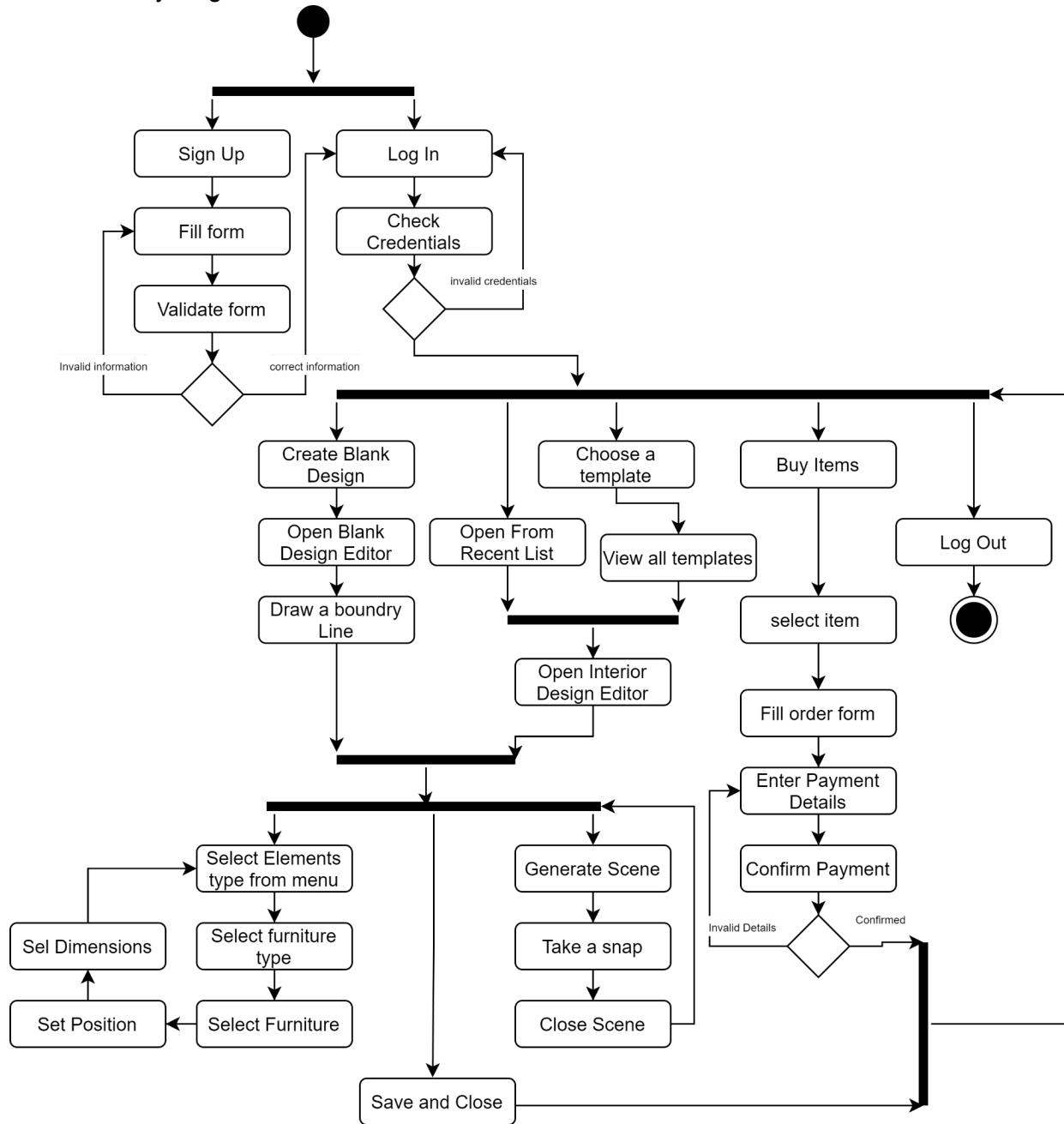
In order to deal with the technical issues then the developers will be here to manage this type of issues.

Use case diagram:

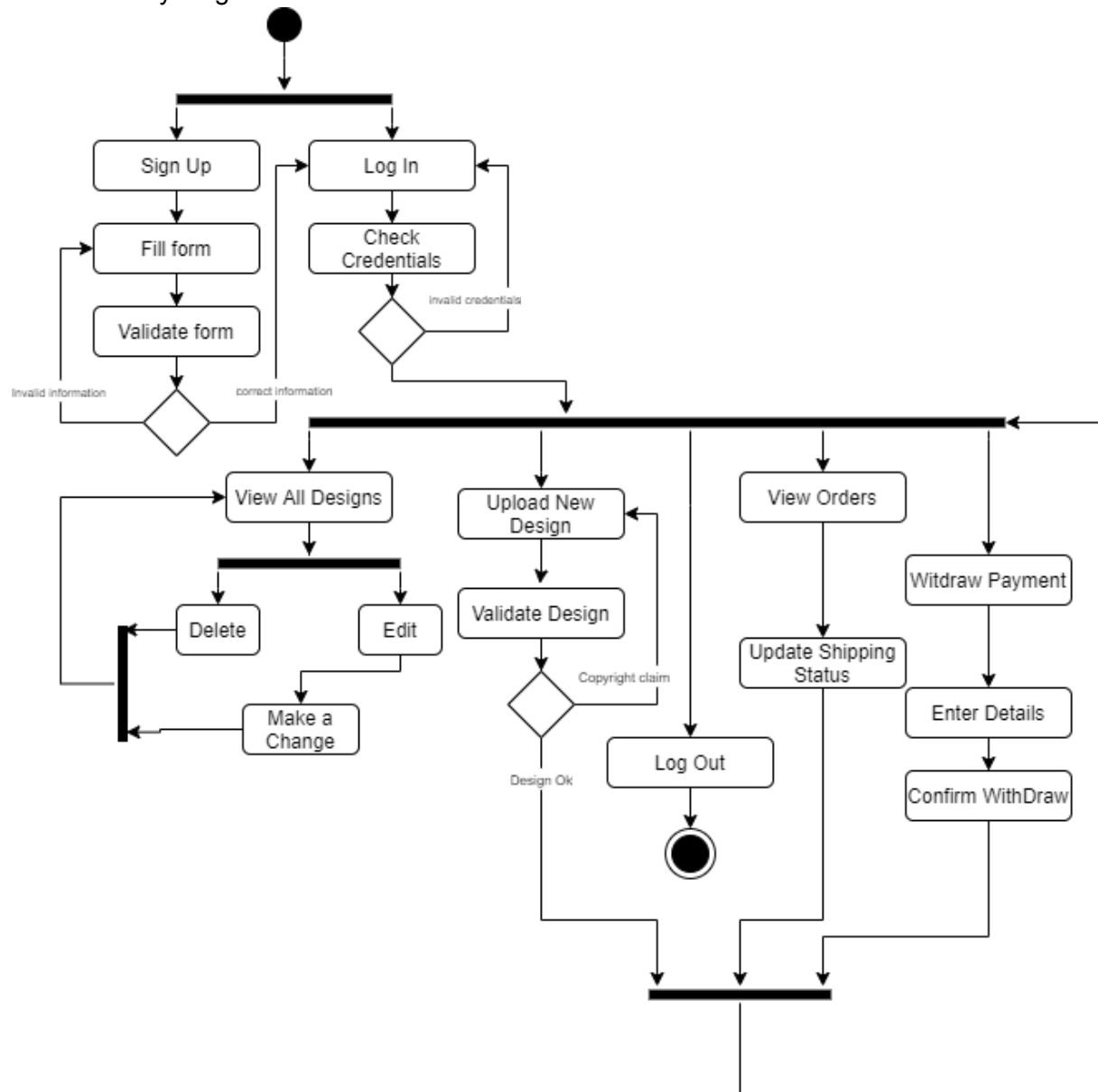


Activity Diagram

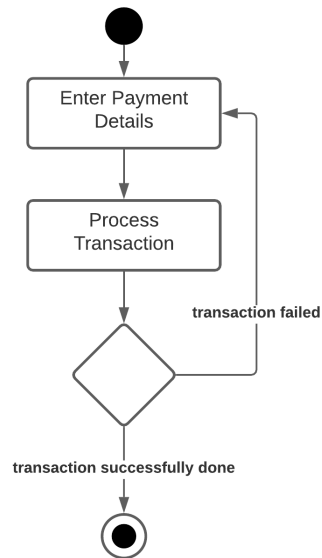
- Activity diagram of Customer user actor



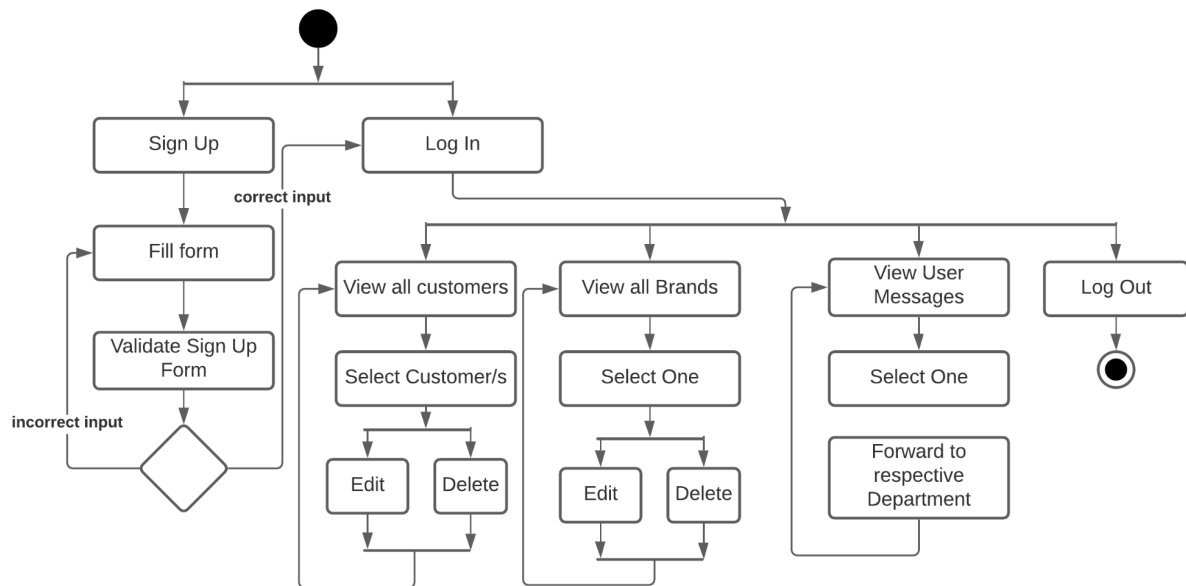
- Activity diagram of Furniture Brand



- Activity Diagram for Payment Gateway

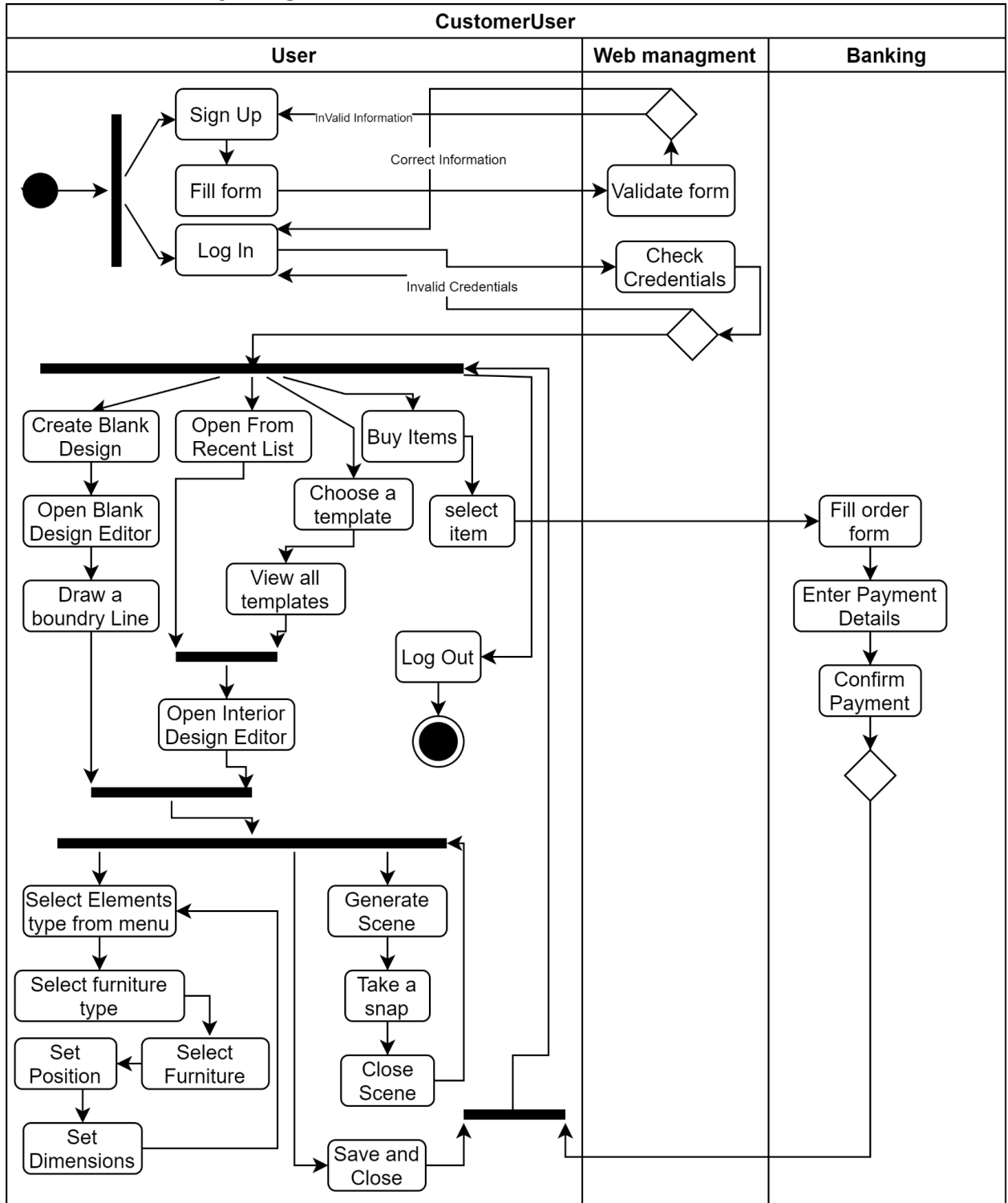


- Activity diagram of Web Management

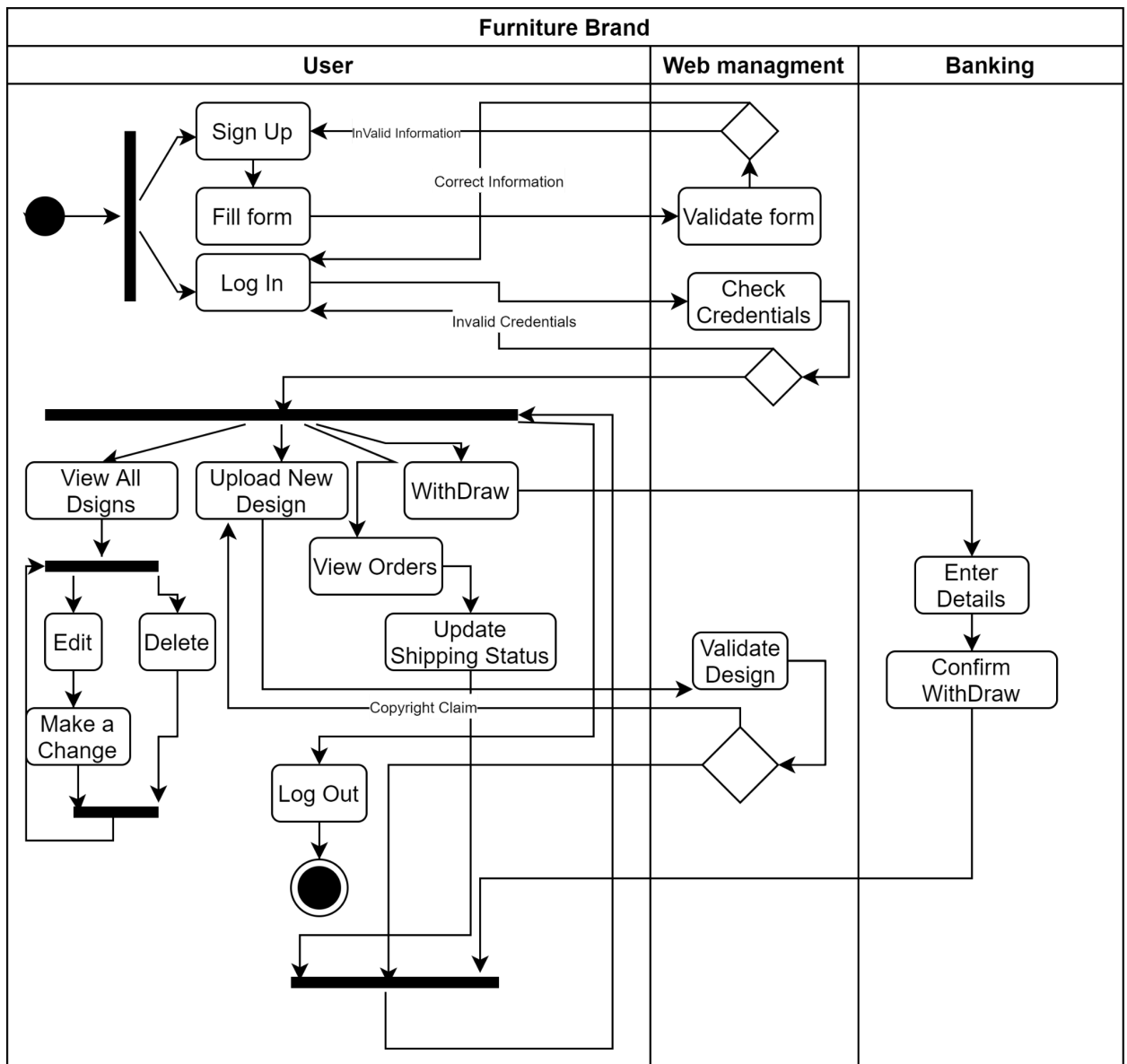


SwimLane Diagram

- **Swimlane activity diagram for actor Customer User**



- SwimLane for Furniture Brand



State Chart Diagram

- State Chart Diagram of Customer User

