

SUPERIOR UNIVERSITY LAHORE



Faculty of Computer Science & IT

Final Year Project PROJECT REPORT

Sale Awareness Application

Project ID: **018**

Project Team

Student Name	Student ID	Program	Contact Number	Email Address
Student Name	Student ID	Program	Contact Number	Email Address
M.Nafees	Bscm-f14-125	BScs	03184120144	P.k12530@yahoo.com
Sonia Arshad	Bscm-f14-140	BScs	03234646316	Soniajutt6565@gmail.com
Sara Rasool	Bscm-f14-036	BScs	03224136924	Crunchy.nutty80@gmail.com
Umer Shahzad	Bscm-f14-002	BScs	03126117746	Umershahzad0346@gmail.com

MR. FARRUKH EHSAN
(Lecturer)

Project Report

Sale Awareness

Change Record

Author(s)	Version	Date	Notes	Supervisor's Signature
	1.0		<Original Draft>	
			<Changes Based on Feedback from Supervisor>	
			<Changes Based on Feedback From Faculty>	
			<Added Project Plan>	
			<Changes Based on Feedback from Supervisor>	

APPROVAL

PROJECT SUPERVISOR

Comments: _____

Name: _____

Date: _____

Signature: _____

PROJECT MANAGER

Comments: _____

Date: _____

Signature: _____

HEAD OF THE DEPARTMENT

Comments: _____

Date: _____

Signature: _____

Dedication

This work is dedicated to:

- Superior
- Teachers
- Family
- Friends
- Peoples

This system is basically dedicated to those peoples who has really need of our system. Also dedicate to the peoples of Pakistan.

Acknowledgements

We are really thankful to our supervisor Mr.Farrukh Ehsan who has helped us in this documentation process without them we were not able to clearly state our idea. He guided us and we learned a lot during this session. This might not be possible to complete this without his help and teaching.

Executive Summary

It's an android application named: "SALE AWARENESS". The purpose of this application is to provide ease of shopping for people. When sale season of various brand arrive, sale notifications will be sent to those who will install this application. They don't need to visit different brand websites. They just have to install this application. It will provide info about all brands sale. It would be helpful for all people belongs to different cities or any backward area. It would be helpful for brands as well, so that they can easily market their products. Mainly it would be a great convenience for brand lovers. In other words, people want to know what's in it for them when they make a purchase. They want to know what is so great about the individual features of your product and how they can benefit them.

Table of Contents

Dedication.....	iv
Acknowledgements.....	v
Executive Summary	vi
Table of Contents	vii
List of Figures	ix
List of Tables	ix
Chapter 1	1
Introduction	1
1.1. Background	2
1.2. Motivations and Challenges	2
1.3. Goals and Objectives.....	2
1.4. Literature Review/Existing Solutions	3
1.5. Gap Analysis.....	3
1.6. Proposed Solution	3
1.7. Project Plan.....	3
1.7.1. Work Breakdown Structure	4
1.7.2. Roles & Responsibility Matrix	4
1.7.3. Gantt Chart.....	5
1.8. Report Outline	7
Chapter 2	8
Software Requirement Specifications.....	8
2.1. Introduction.....	9
2.1.1. Purpose	9
2.1.2. Document Conventions	9
2.1.3. Intended Audience and Reading Suggestions.....	9
2.1.4. Product Scope	9
2.1.5. References	9
2.2. Overall Description	10
2.2.1. Product Perspective.....	10
2.2.2. Product Functions.....	10
2.2.3. User Classes and Characteristics	11
2.2.4. Operating Environment	11
2.2.5. Design and Implementation Constraints	11
2.2.6. User Documentation	11
2.2.7. Assumptions and Dependencies	11
2.3. External Interface Requirements.....	12

2.3.1. User Interfaces	12
2.3.2. Hardware Interfaces	13
2.3.3. Software Interfaces	13
2.3.4. Communications Interfaces	14
2.4. System Features.....	14
2.4.1.1. Description and Priority	14
2.4.1.2. Stimulus/Response Sequences	14
2.4.1.3. Functional Requirements	15
2.4.2.1. Description and Priority	16
2.5. Other Nonfunctional Requirements	17
2.5.1. Performance Requirements.....	17
2.5.2. Safety Requirements	17
2.5.3. Security Requirements	17
2.5.4. Software Quality Attributes	17
2.5.5. Business Rules	17
2.6. Other Requirements	18
Chapter 3	19
Use Case Analysis.....	19
3.1. Use Case Model	20
3.2. Fully Dressed Use Cases	21
Chapter 4	22
System Design.....	22
4.1. Architecture Diagram	23
4.2. Domain Model	24
4.3. Entity Relationship Diagram with data dictionary	25
4.4. Class Diagram.....	27
4.5. Sequence / Collaboration Diagram	27
4.6. Operation contracts	43
4.7. Activity Diagram.....	43
4.8. State Transition Diagram.....	62
4.9. Component Diagram	64
4.10. Deployment Diagram.....	65
Chapter 5	66
Implementation	66
5.1. Important Flow Control/Pseudo codes	66
5.2. Components, Libraries, Web Services and stubs.....	67
5.3. Deployment Environment	67
5.4. Tools and Techniques.....	67
5.5. Best Practices / Coding Standards	67
5.6. Version Control	68

List of Figures

1.1	Work Breakdown Structure	4
1.2	Gantt Chart	5
2.1	Basic Flow of Product	9
2.2	Basic Data Flow of Product	10
2.3	Software Interfaces	12
2.4	System Feature 1	13
2.5	System Feature 2	15
3.1	Use Case	18
4.1	Architecture Diagram	21
4.2	Domain Model	22
4.3	ERD	23
4.4	Class Diagram	25
4.5	Sequence Diagram	26
4.6	Activity Diagram	27
4.7	State Transition Diagram	28
4.8	Component Diagram	29
4.9	Deployment Diagram	30
A.1	Broacher	37
A.2	Flyer	38
A.3	Standee	39
A.4	Banner	40

List of Tables

1.1	Rolls & Responsibilities Matrix	4
2.1	User Interfaces	11

Chapter 1

Introduction

Chapter 1: Introduction

We are developing an android application named: “SALE AWARENESS”. The purpose of this application is to provide ease of shopping for people. When sale season of various brand arrive, sale notifications will be sent to those who will install this application. They don't need to visit different brand websites. They just have to install this application. It will provide info about all brands sale. It would be helpful for all people belongs to different cities or any backward area. It would be helpful for brands as well, so that they can easily market their products. Mainly it would be a great convenience for brand lovers. In other words, people want to know what's in it for them when they make a purchase. They want to know what is so great about the individual features of your product and how they can benefit them.

1.1. Background

Our purpose is to provide ease to the people in shopping. We are introducing an application named “Sale Awareness”, where users will view all brands that are on sale and users will be also updated about sale through notifications.

1.2. Motivations and Challenges

As everyone want to updated about sale season, so this desire of people motivated us and the challenge is to implement our Application successfully for the ease of our society.

1.3. Goals and Objectives

Our goal is to develop this Android Application “Sale Awareness”. About 15-20 brands at start will be available at this Platform, where Products will be displayed that are on sale (through images).User can view all products that are on sale, so that they can buy that

from the nearest store. They can view that sale is of their interest or not. Main goal is to implement possible no. of brands in this Application.

1.4. Literature Review/Existing Solutions

As far as we get from analysis of market is that there no direct competitor working in our country but there are indirect competitors those are not working in Pakistan that are implementing this for food and travel too, so it's our application that is only providing this for shopping purpose of every goods of brands like shoes, hijabs, jewelry bags and others stuffs from clothing brands in Pakistan.

1.5. Gap Analysis

After market analysis we can confidently state our gap analysis that there is a difficulty for brand customer. They are not aware when the sale season arrive and when it ends. Brands also face this problem as they don't get favorable selling.

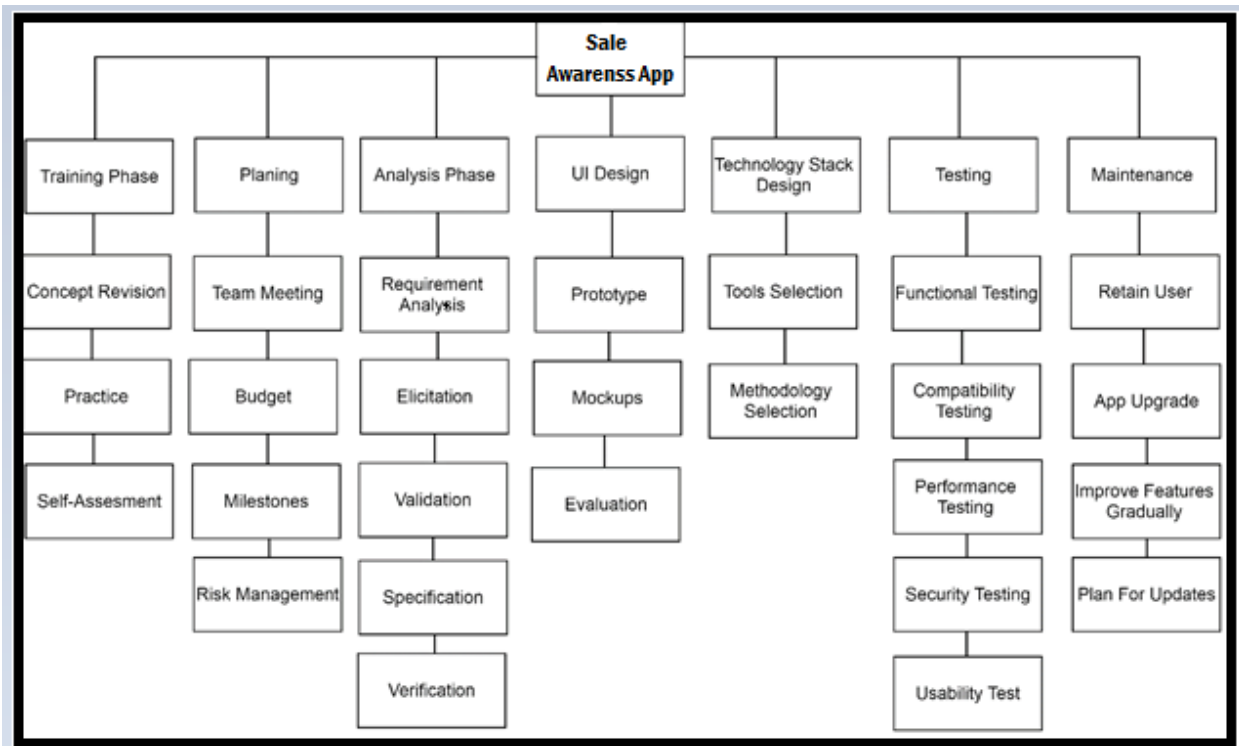
1.6. Proposed Solution

There is no such solution available in the market so we are going to launch this application. People want solution to their problem when you suggest or help to fix the problem. You earn a captive audience. Although customers are attracted to exclusive deals and big shinny offers. An important component of successful sailing is getting the customers to feel you both are on the same team. Believing that all partners are in a mutual beneficial relationship. Buyer begins to exhibit cooperative behavior. Soon you will find more prospects that will have a remarkable Impact on you close rates.

1.7. Project Plan

If we talk about project plan its 12 month Project plan and the methodology we are going to follow is agile methodology of Software Engineering.

1.7.1. Work Breakdown Structure

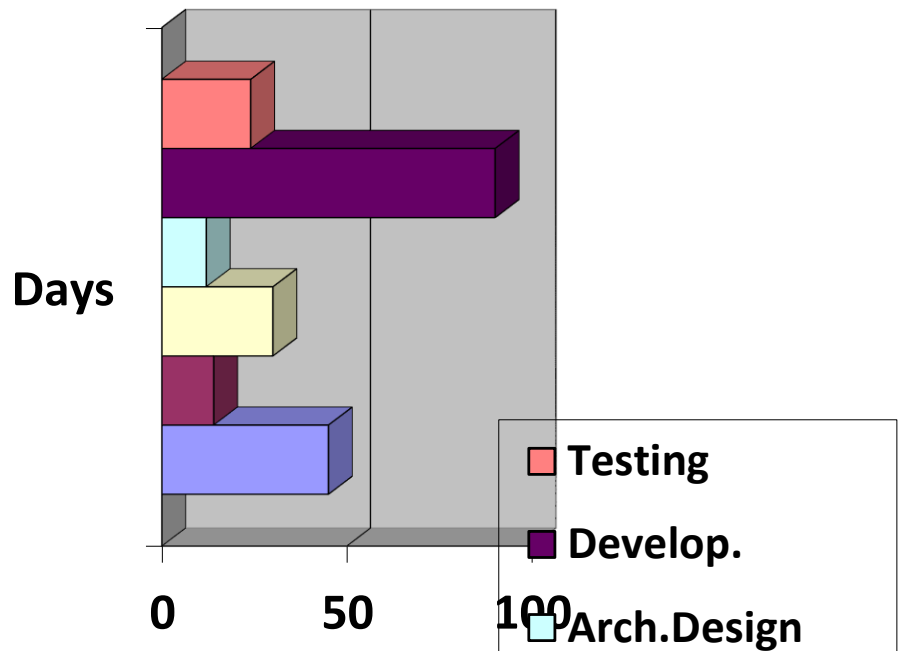


1.7.2. Roles & Responsibility Matrix

WBS #	WBS Deliverable	Activity #	Activity Complete to the Deliverable	Duration (# of Days)	Responsible Team Member(s) & Role(s)
1	Training Session	1	Consult Professionals	1 week	All of Us
2	Front End	2	-	3 Months	All of us
2	Back End	3	-	3 Months	All of us

1.7.3. Gantt chart

Task Mode ▼	Task Name ▼	Duration ▼	Start ▼	Finish ▼
	Training	45 days	Mon 27-11-17	Fri 26-01-18
	POC (SDK)	14 days	Mon 29-01-18	Thu 15-02-18
	Documentation	30 days	Fri 16-02-18	Thu 29-03-18
	System Architecture Design	12 days	Mon 02-04-18	Tue 17-04-18
	Development	90 days	Wed 18-04-18	Tue 21-08-18
	Testing	24 days	Wed 22-08-18	Mon 24-09-18



	Days	
Testing	24	Arch.Design
Develop.	90	Documentation
Arch.Design	12	POC(SDK)
Documentation	30	Training
POC(SDK)	14	
Training	45	

1.8. Report Outline

Chapter 1 is a complete and defined introduction of our final year project.

- 1- **Background:** There was a need of this application that made us do that.
- 2- **Motivations and Challenges:** We are doing this to provide ease to the society and we will implement our Application for our Society.
- 3- **Goals and Objectives:** There should be pre-defined goals and objectives and we also had already set our goal for which we have define some objective. We can achieve these objectives and goal as a team.
- 4- **Literature Review/Existing Solution:** We analyze the market and currently there is no such active product in market based on our idea.
- 5- **Gap Analysis:** We analyze the market and according to our findings there is a huge gap in the market. In today's busy life, people of urban areas find it difficult to manage their time if they want to buy a sofa or a bed, etc. People of rural areas also face difficulties in order to buy something, because first they have to come to the city and then look for the desired item.
- 6- **Proposed Solution:** We are going to combine all brands at one platform where users will get alert about Sale Season.

Project Plan: We created a work breakdown structure through which we are clearly aware of the development flow. We also distributed roles to each team member and for this purpose we created an R&R Matrix through which every team member is aware of every team member's task. We divided the number of days according to the intensity and load of a particular task through Gantt chart.

Chapter 2

Software Requirement Specifications

Chapter 2: Software Requirement Specifications

2.1. Introduction

2.1.1. Purpose

Our focus is on providing a comfortable interface where users can view sale products. We are providing ease to the shopaholic people especially ladies are our target market. As everyone want to buy good things in lesser price so Sale is a good option for them our application will give them alert of sale season and will also show the sale products. Scope of this project is there was no such system available in market for this purpose specifically.

2.1.2. Document Conventions

This Document is following the international standard of IEEE for SRS Documenting. Important things, functions and workings are written in **bold**. This document describes all the features of the system, purpose of the system, working of the system and also how to use the system in the right manner.

2.1.3. Intended Audience and Reading Suggestions

This document is intended for the developers of this application, project managers, marketing staff, users, testers, and documentation writers. Line by Line everything is clearly defined in this document that is much understandable for users and developers and for every reader.

2.1.4. Product Scope

Scope of this project is there was no such system available in market for this purpose specifically. No one make this application before this so, people will get aware to the sale season. It's also beneficial for brands as it's also a type of marketing for brands. We provide one platform for all peoples those are brand seekers. This application will save

the time of people by giving them alert about sale season through notification rather than surveying a market for knowing about the sale.

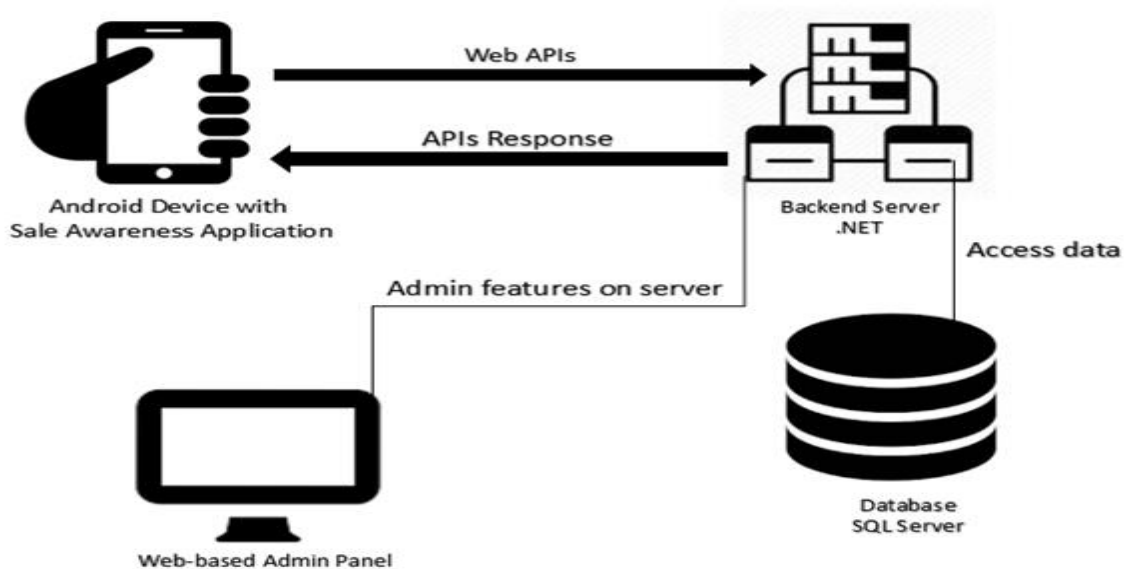
2.1.5. References

No Reference for now.

2.2. Overall Description

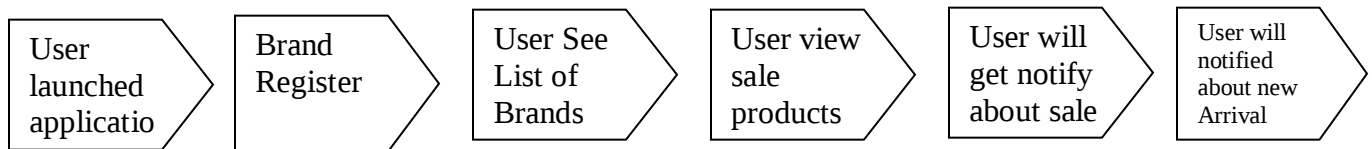
2.2.1. Product Perspective

Our application named **Sale Awareness** is providing an alert about the sale and the view of sale products of brands at one platform. There such application exist but they are providing many more things that is not specifically pointing brands or clothing brands.



2.2.2. Product Functions

- User will download the Application.
- User will be notify about the sale season.
- More than 20 brands at one platform at start.
- User can view the sale products of Brands with the price.
- User will notified about new Arrival.
- Brand will be registered (for data entry about their sale products and details)



2.2.3. User Classes and Characteristics

Every class can use that application easily, the user is the one who is registered will be notified and can view brands sale products with their price. We will provide an account for the brand individually so that they can upload or update or modify information, price and image about their sale products.

2.2.4. Operating Environment

This android application will be available for Android devices not for the iOS devices and for minimum 3GB RAM Memory running Android Marshmallow 6.0.1 and above according to updating of Android.

2.2.5. Design and Implementation Constraints

This application is for Android devices only and will not be running good for the device having less than 3GB of RAM and else there are no constraints for this Application.

2.2.6. User Documentation

This Application is easy to use like other applications on Google Play Store, taking an example of marketing apps it will show products in form of images and videos with price. Easy to view.

2.2.7. Assumptions and Dependencies

As this application is for android users only so others cannot download that application, at start this application will be launched for the Android Application.

2.3. External Interface Requirements

2.3.1. User Interfaces

Sale Awareness have 5 user interfaces screen:

- **Home Screen:**

This screen will be consist of buttons and images, at the very top there will be the button of sign in and sign out and the list view where the brands logo with their name will be displayed.

- **Product Screen:**

This screen will show the images of the products with their price and Product Id, and at the top of this screen the TVC or Image advertisement of that brand will be showed. Every Brand will have this screen individually.

- **Image Zoom View Screen:**

This screen will only show the zoom view of the selected image.

- **Register:**

This screen will show the form in which there will be name, password, confirm password edit text box at the end sign up option. This screen will be for the Brands.

- **Sign In Screen:**

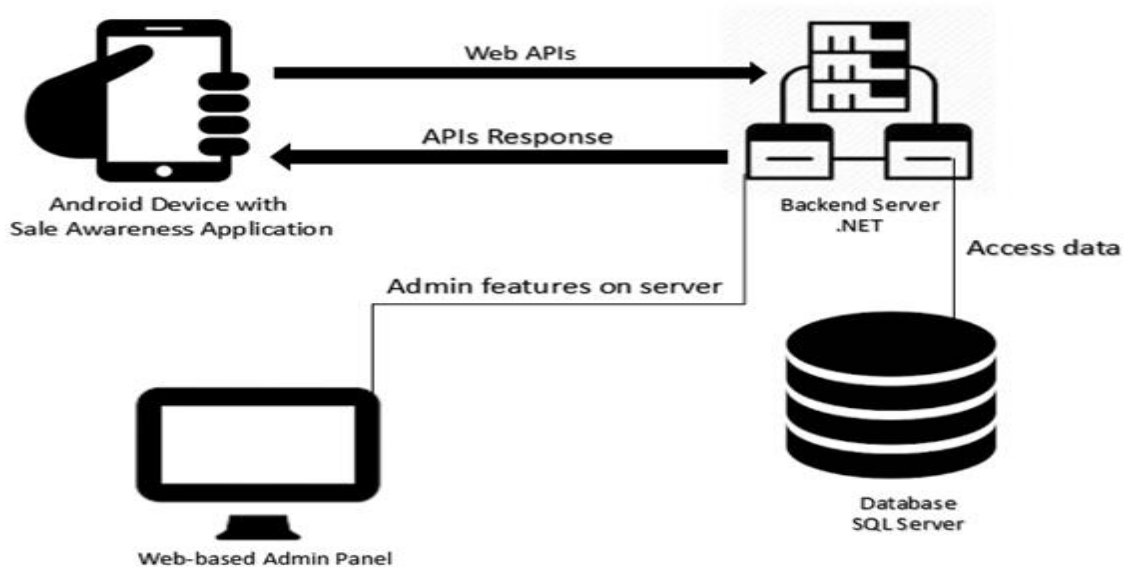
There will be username and password option only. After that a button of sign in.

- **Side Drawer:**

In this screen application name user name who have signed in and details will be displayed about the app.

2.3.2. Hardware Interfaces

The Register Screen will register the data in the form of JSON to the Database at back end server and at signing screen data entered will be confirmed by the database and then will use signed in interface called home screen. Every brand name and their data and all the data used in this app or modified or updated will be stored in the form of JSON in the back end server. The application will sent the APIs to the back end server as shown in figure:



2.3.3. Software Interfaces

Sale awareness is available on android devices with android 5.1.1 lollipop. The SQL SERVER database will be used to store data. This information will be uploaded to Hinterland with the API. All communications will be used for these APIs. Internet service is required to provide the connection between the back server and the Android application. The Android device and the following server, both need an Internet connection to connect to each other.

2.3.4. Communications Interfaces

There is no such interface required for this application.

2.4. System Features

Sale Awareness is an online application where users will be notified about the sale and user can view sale products. Feature of this application are following:

- Sale Alert
- All brands at one platform
- Product Details (old price, new price, color, stuff, size, image etc.)
- Login for Brand
- Sale Duration
- Product Categories
- Price range

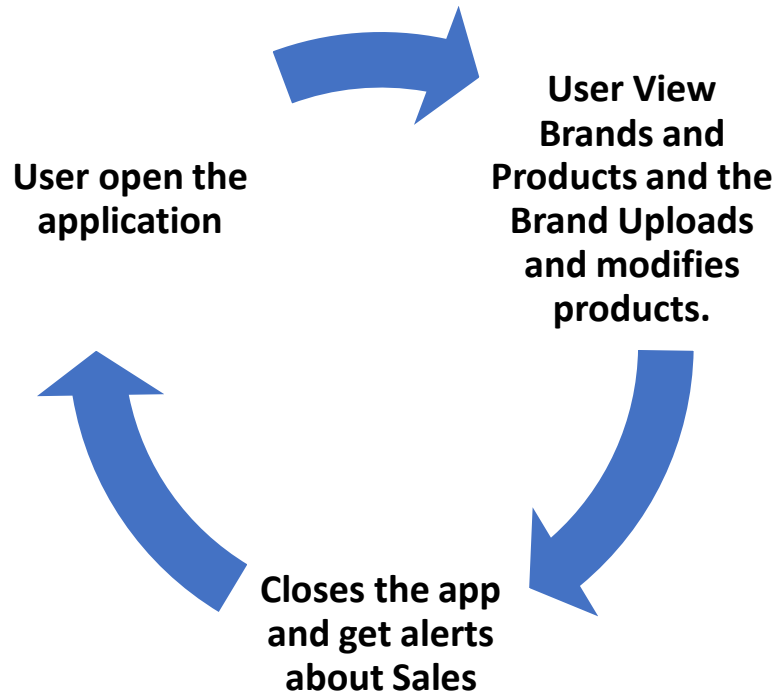
2.4.1. Online Application Sale Alert

Its feature is its online Sale Alert, You don't have to visit different websites or bazar to know about sale season all you have to do is download this application and register yourself here. And check all brands at one platform.

2.4.1.1. Description and Priority

As this application is providing ease to a new era for shopping so this Application has a priority. User can view sale products and also will get alert about the sale and brands can market their self-more through this app.

2.4.1.2. Stimulus/Response Sequences



2.4.1.3. Functional Requirements

User:

REQ-SF2-1: Internet Connection.

REQ-SF2-2: Android Device.

REQ-SF2-3: List of Brands.

REQ-SF2-4: View Products by Categories.

REQ-SF2-5: View Products by Brand.

REQ-SF2-6: View Products by Product id.

REQ-SF2-7: View sale by Brand id.

REQ-SF2-8: Get Notifications.

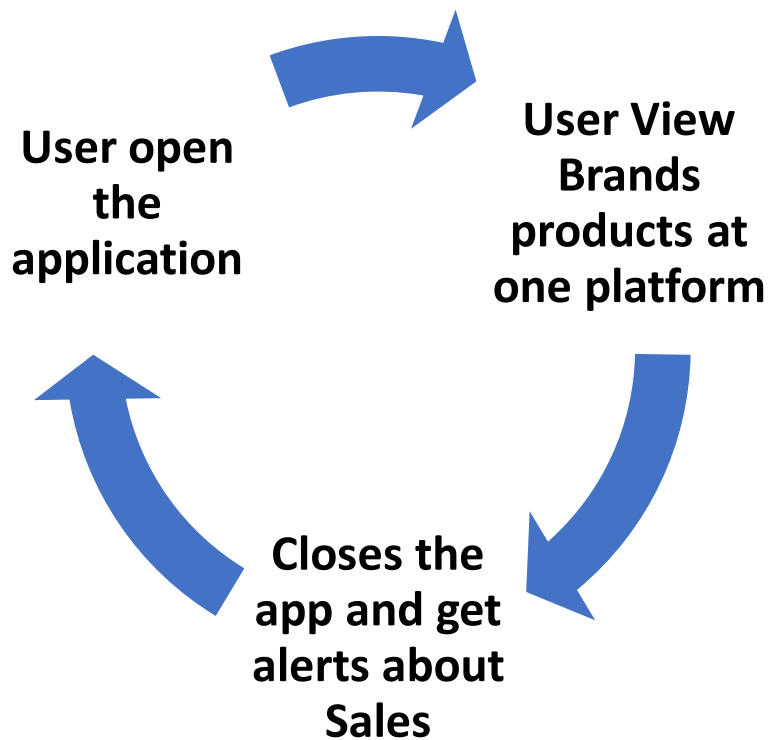
2.4.1. All Brands at one platform:

With this Application user will be alerted about the sale, sale of various brands through one application named sale Awareness.

2.4.1.1. Description and Priority

People don't have much knowledge about sale so we are providing a notification feature to tell user about the sale so it has much priority.

2.4.1.2. Stimulus/Response Sequences



2.4.1.3 .Functional Requirements

Brands:

REQ-SF2-1: Internet Connection.

REQ-SF2-2: Login for Brands.

REQ-SF2-3: Add Products.

REQ-SF2-4: Update Products.

REQ-SF2-5: Delete Products.

REQ-SF2-6: View all Product.

REQ-SF2-7: Add Edit Delete category.

REQ-SF2-8: View All Categories or by id.

Admin:

REQ-SF2-1: Add Update Or Delete Brands.

REQ-SF2-2: Reset Password keys.

REQ-SF2-3: View all Brands.

1.1. Other Nonfunctional Requirements

1.1.1. Performance Requirements

For using this Application you must have an android mobile phone with Min. 3GB RAM for good performance otherwise this application is not heavy application so it will run smoothly.

1.1.2. Safety Requirements

No safety requirements are necessary for this application as there is no buying and selling option in this app so don't required any safety for just showing bands and their products.

1.1.3. Security Requirements

As all the data is stored on online back-end server so initially there are no such requirements required.

1.1.4. Software Quality Attributes

Back-end server should be always online. Android Device must have a running Internet connection. This Android app should be able to communicate with the back-end server. This Android app should be responsive, efficient and accurate.

1.1.5. Business Rules

Application is a one platform for more than 15 brands, we will assign accounts to these brands who will take responsibility of marketing themselves there in sale season.

1.2. Other Requirements

Every brand to whoever we are going to sale this account on our application will have specific id in our database so basic requirement is there should be three panels one for the admin one for the user and last one for the registered brands and others are following :

Secure Website

Efficient web/app

Validations screen

User friendly web/app

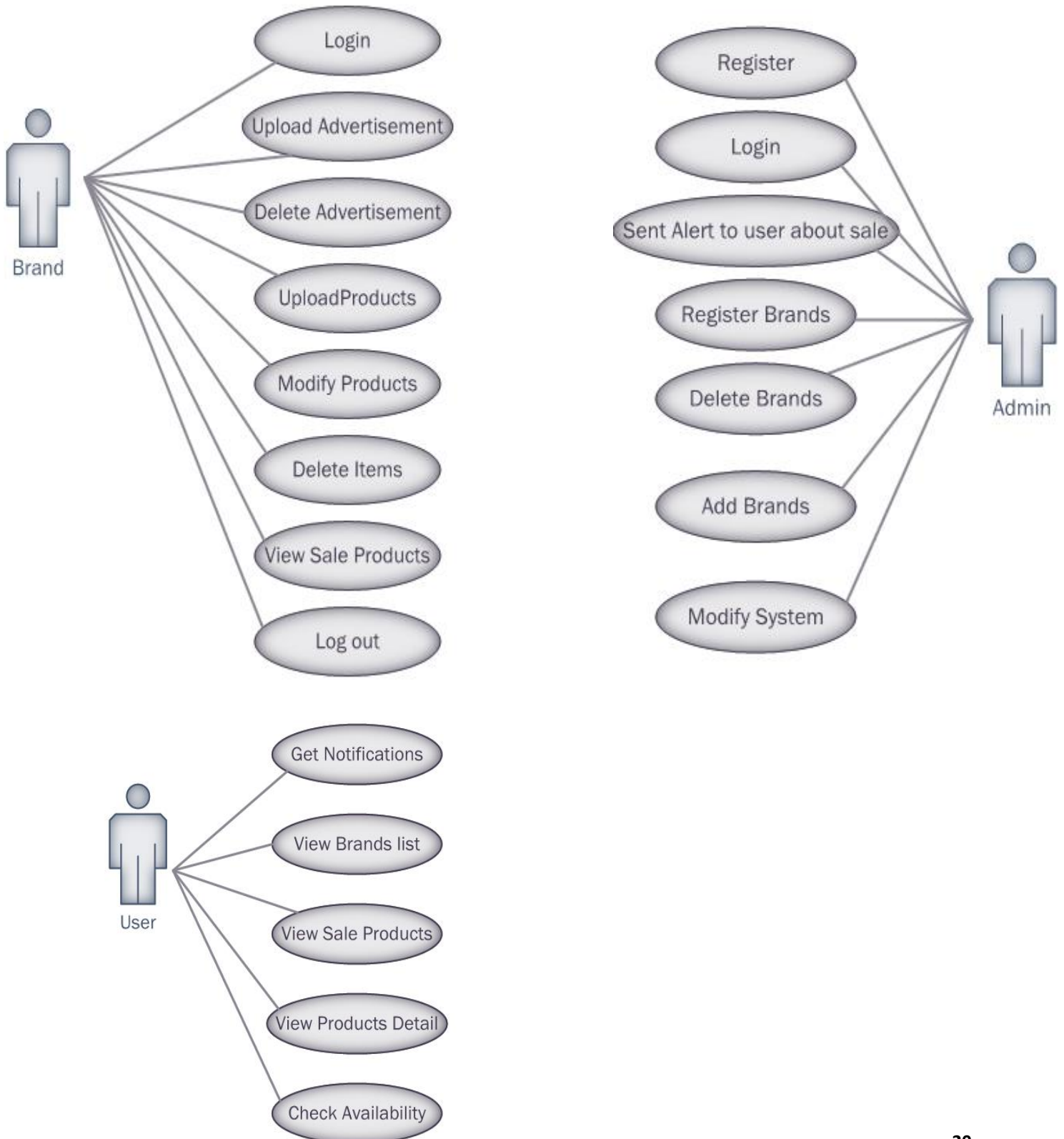
Chapter 3

Use Case Analysis

Chapter 3: System Analysis

Sale Awareness Application is for all society who goes for a market to buy things from brands. For the ones who seeks for a sale by visiting different brands website one by one to know about the sale and sometimes they get to know about the sale when sale season is over. Here we go with an idea to provide sale information about all brands at one platform. That platform is our Application that would be consist of more than 15 brands. Sale products will be displaying with price and with features details. The user will also get the notification about the sale from our application.

3.1 Use Case Model



3.1. Fully Dressed Use Cases

Main Success Scenario (or Basic Flow):

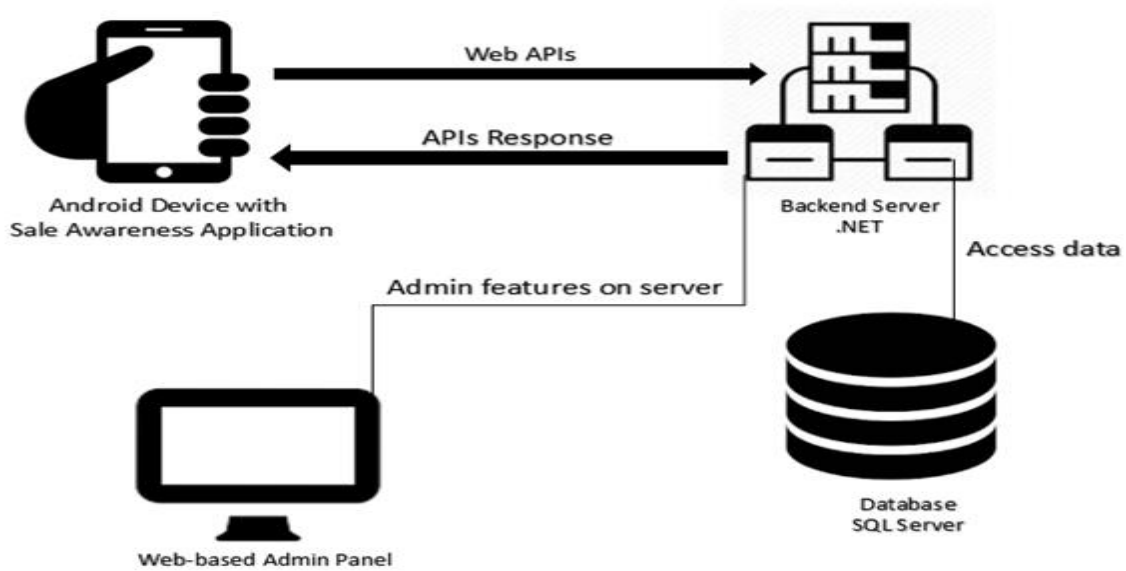
1. User opens the app.
2. User view Brands list.
3. User view TVC or picture Advertisement of that brand.
4. User view list of sale products with price details and item Id.
 - a. User browses through available products.
 - b. User see a zoom view of every product.
 - c. Brands upload Advertisement and sale products images and ID with price details.
 - d. Get alerts about sale.
 - e. Brands update the sale products availability and sizes or more description.

Chapter 4

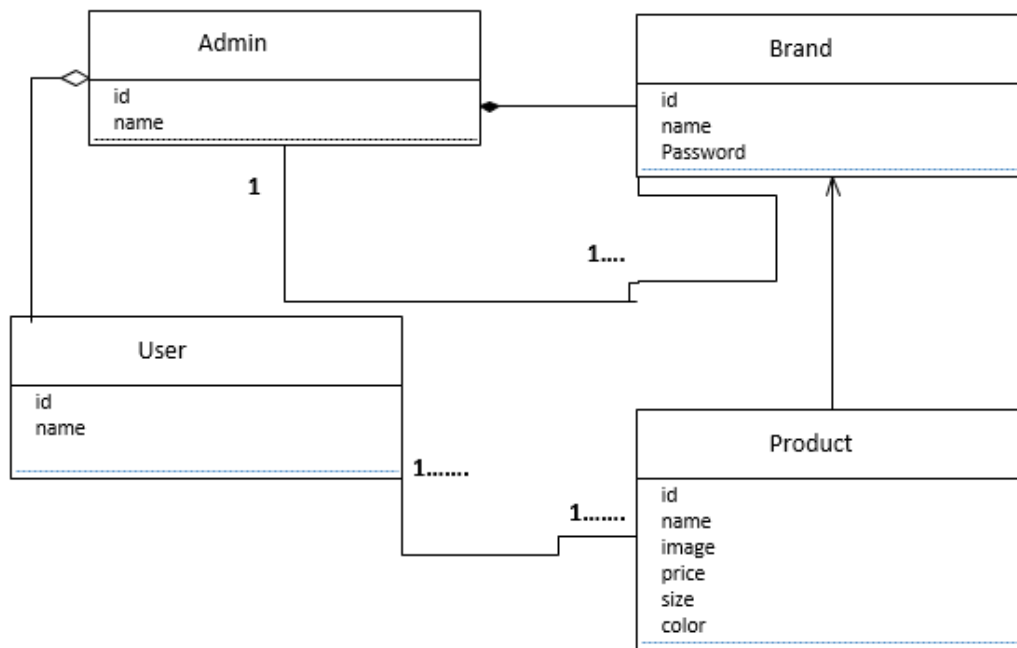
System Design

Chapter 4: System Design

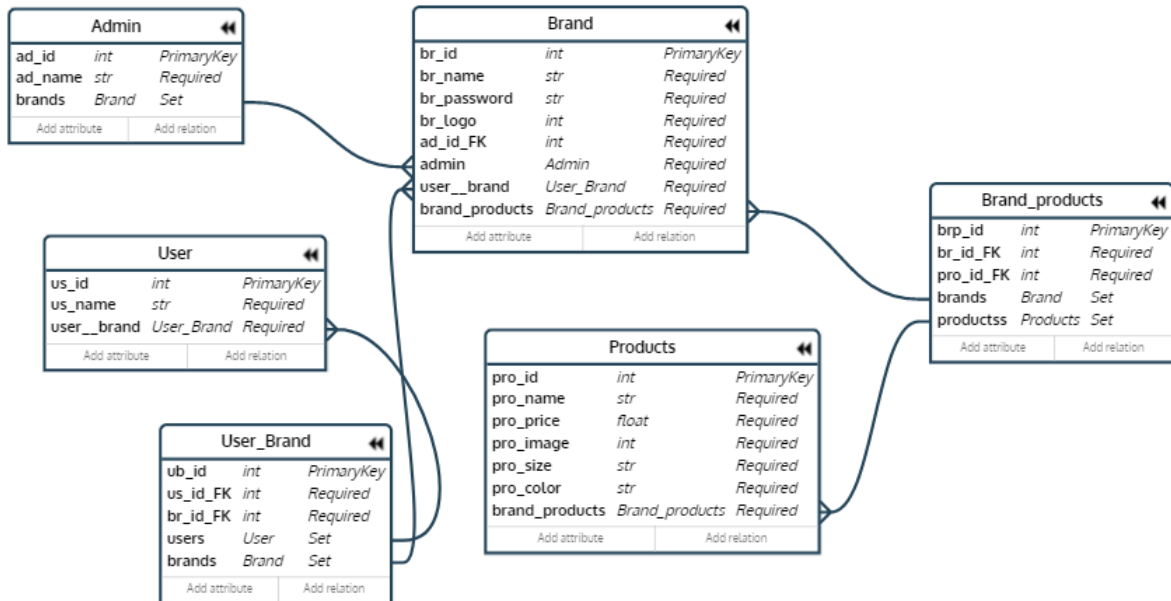
4.1. Architecture Diagram



4.2. Domain Model



4.3. Entity Relationship Diagram with data dictionary



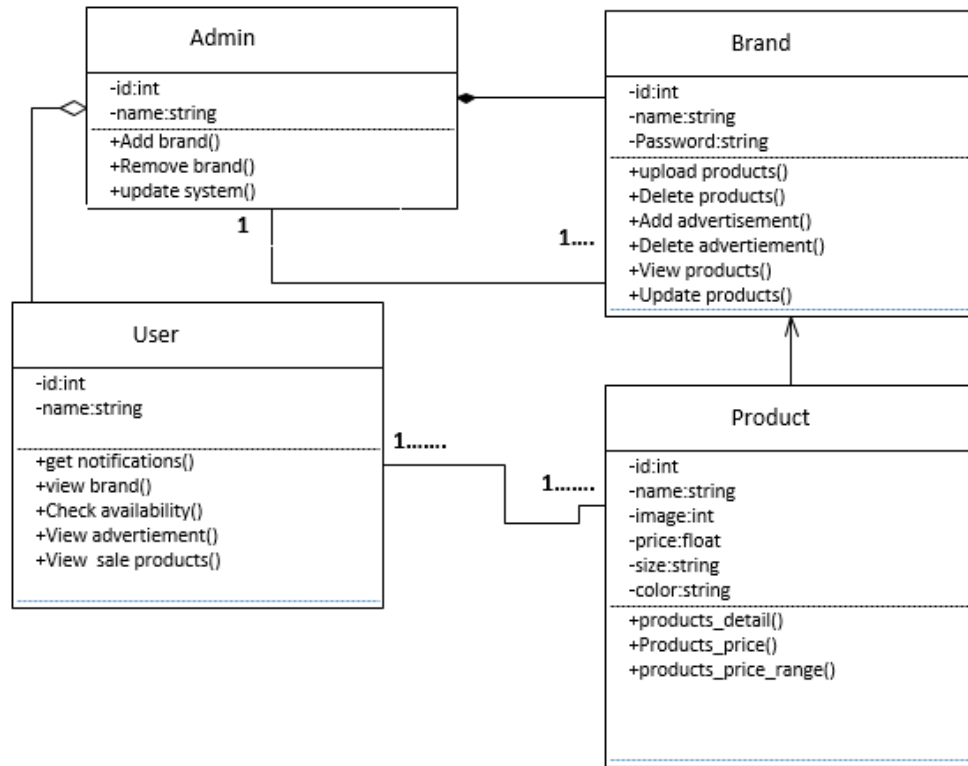
Data Dictionary

User				
Field Name	Data Type	Allow Null	Constrains	Description
Username	string	No	PK	Username or Id
User Password	nvarchar(200)	No	null	Password

Brands				
Field Name	Data Type	Allow Null	Constrains	Description
Brand ID	Int	no	PK	Brand Id
Brand-named	nvarchar(200)	no	null	Name of Brand
Brand Logo	nvarchar(200)	no	null	Logo of Brand
Brand Password	nvarchar(20)	no	null	Password
Product ID	nvarchar(200)	no	FK	Project ID

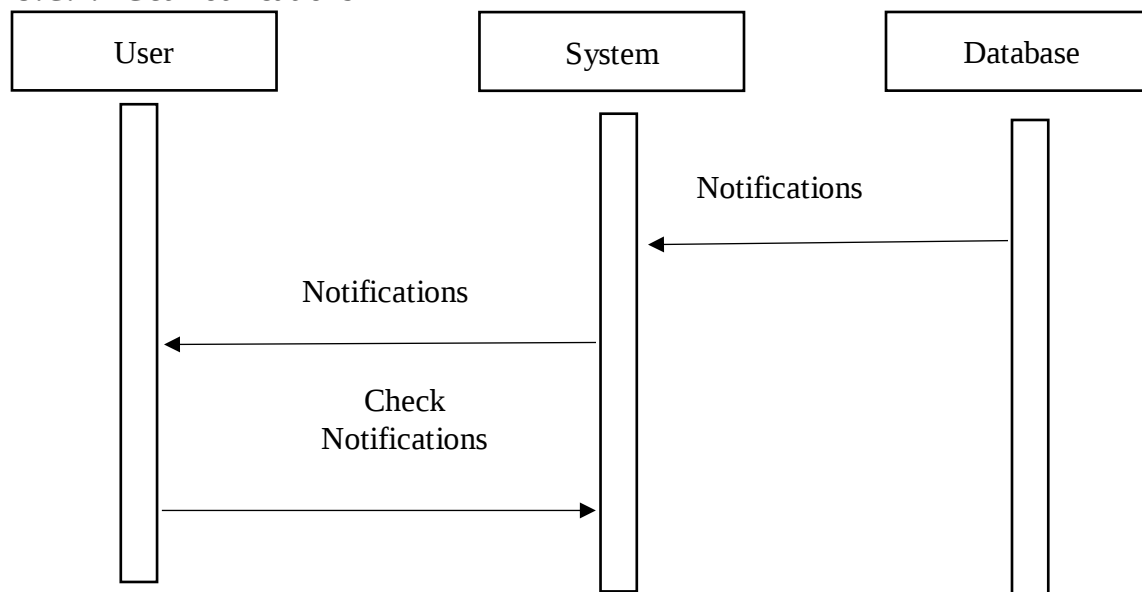
Products				
Field Name	Data Type	Allow Null	Constrains	Description
Product ID	Int	no	PK	Product ID
Product_img	nvarchar(200)	no	null	Image of product
Product-Price	nvarchar(200)	no	null	Logo of Brand
Product_Detail	nvarchar(20)	no	null	Password

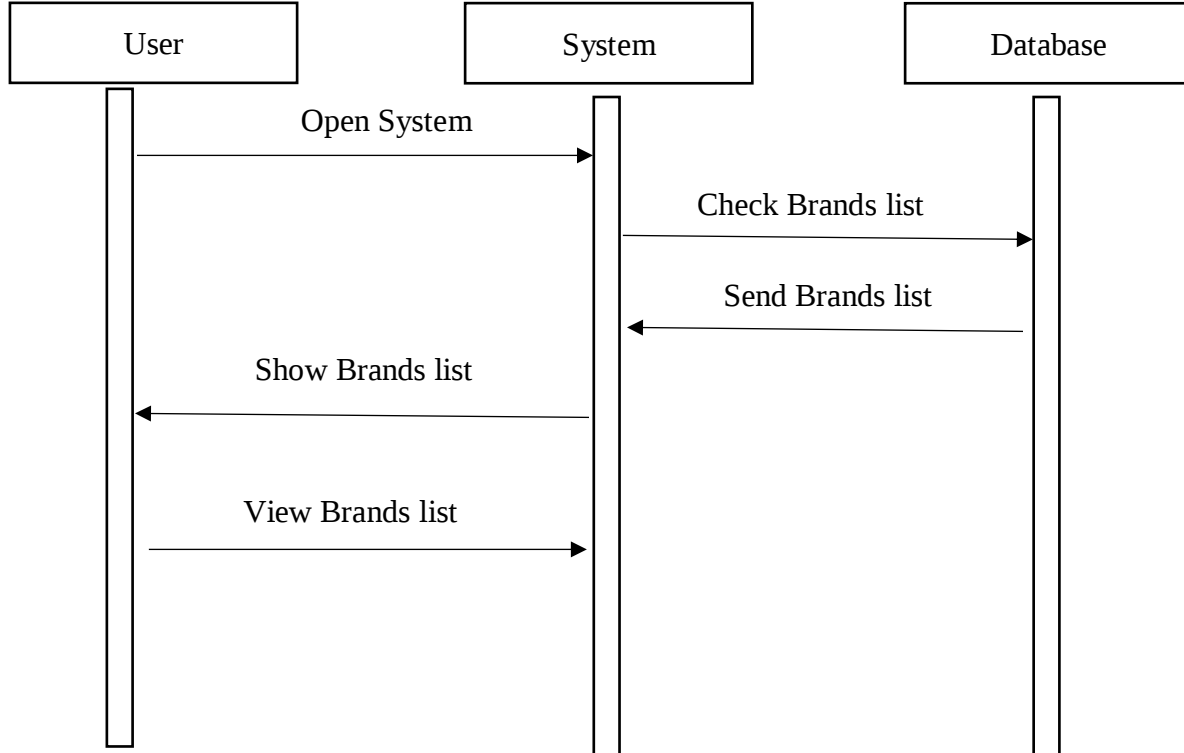
4.4. Class Diagram

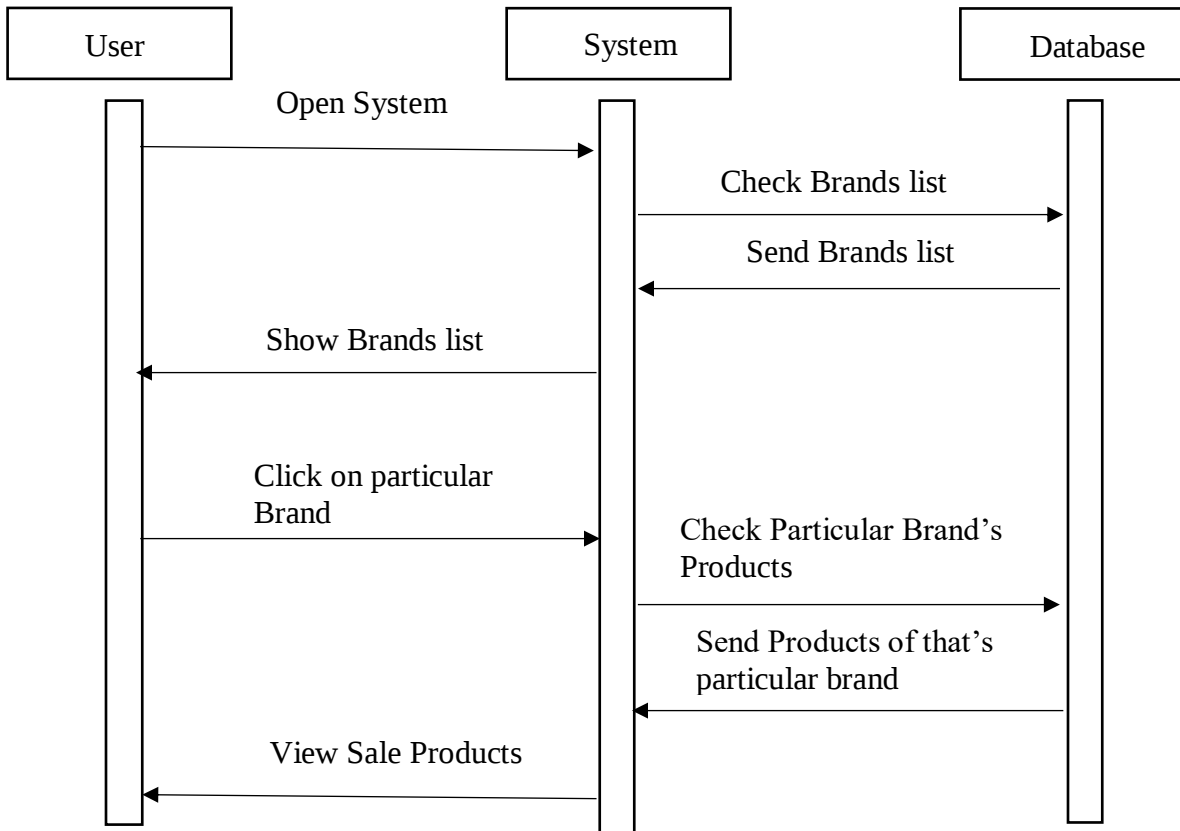


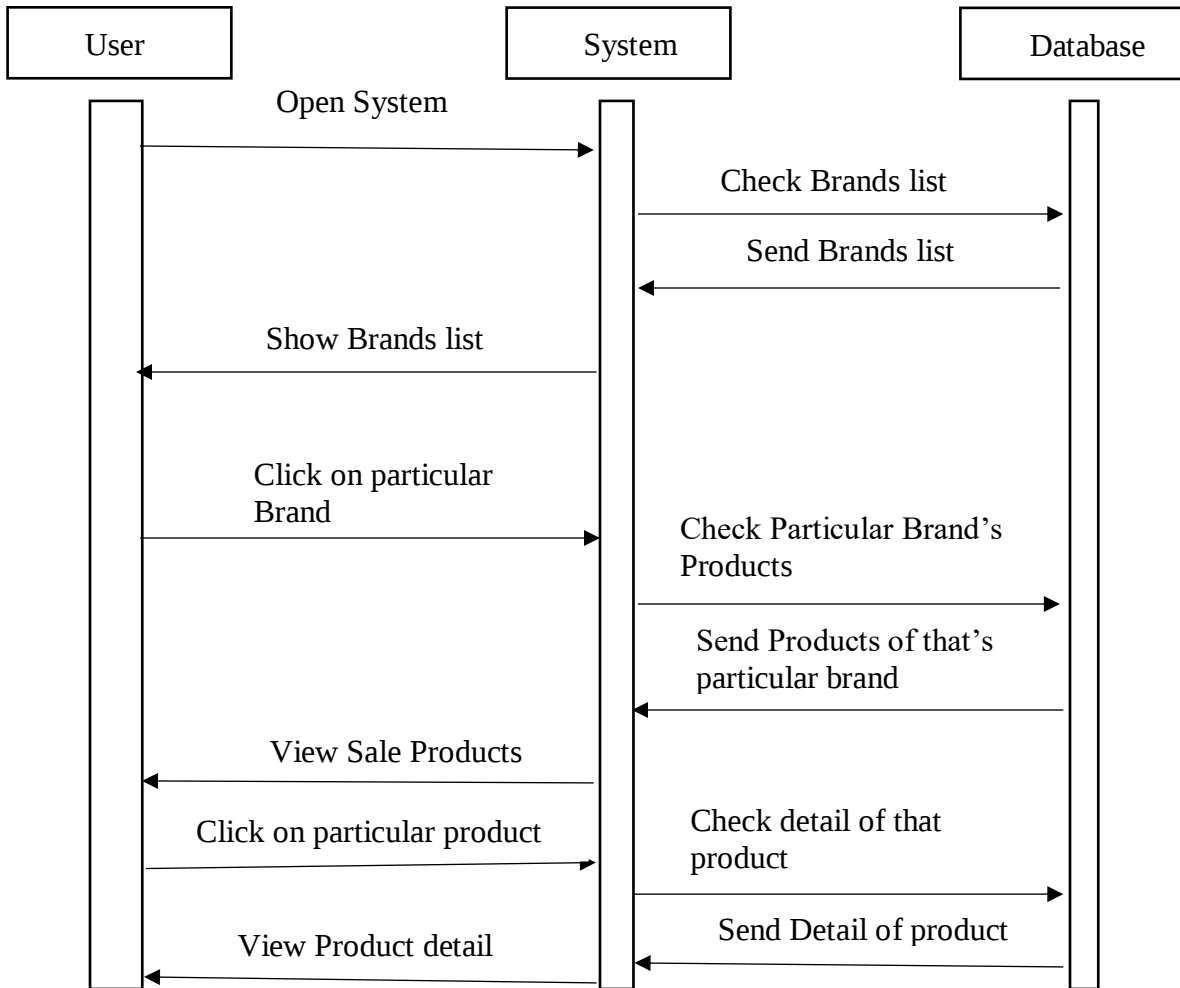
4.5. Sequence / Collaboration Diagram

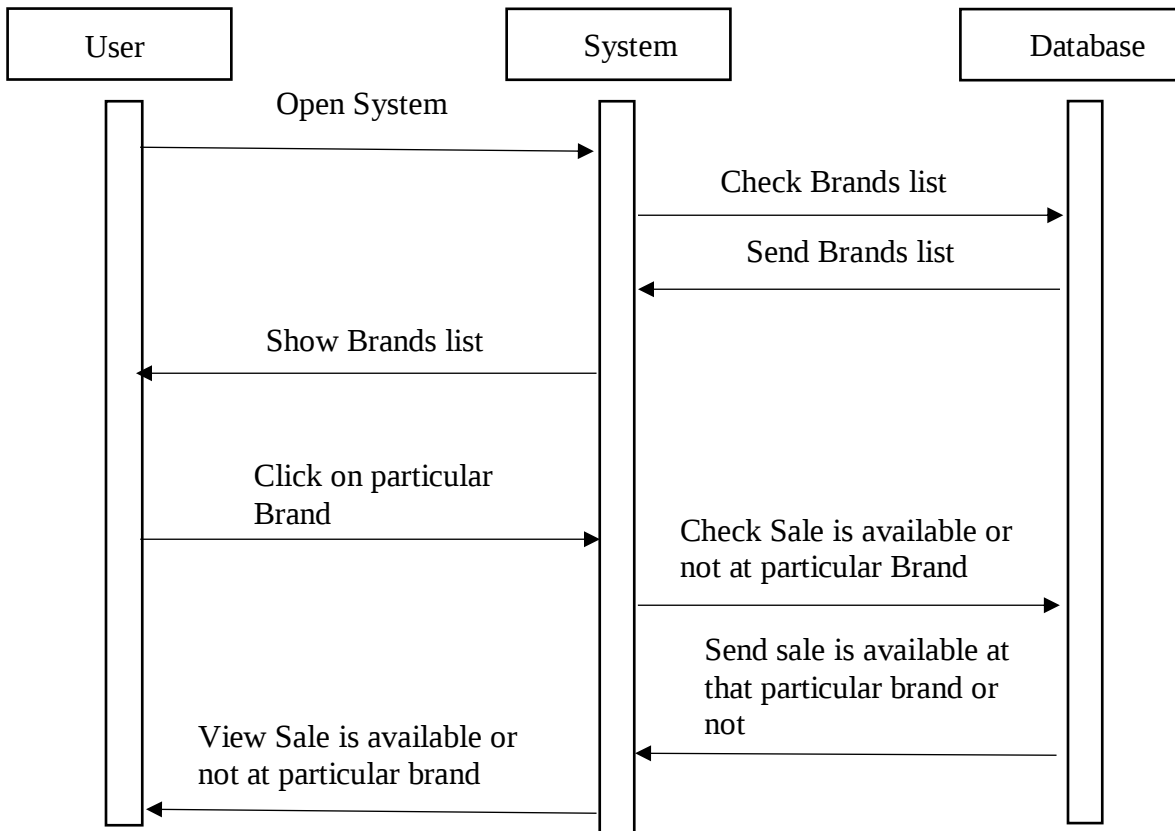
U.C.1.1 Get Notifications

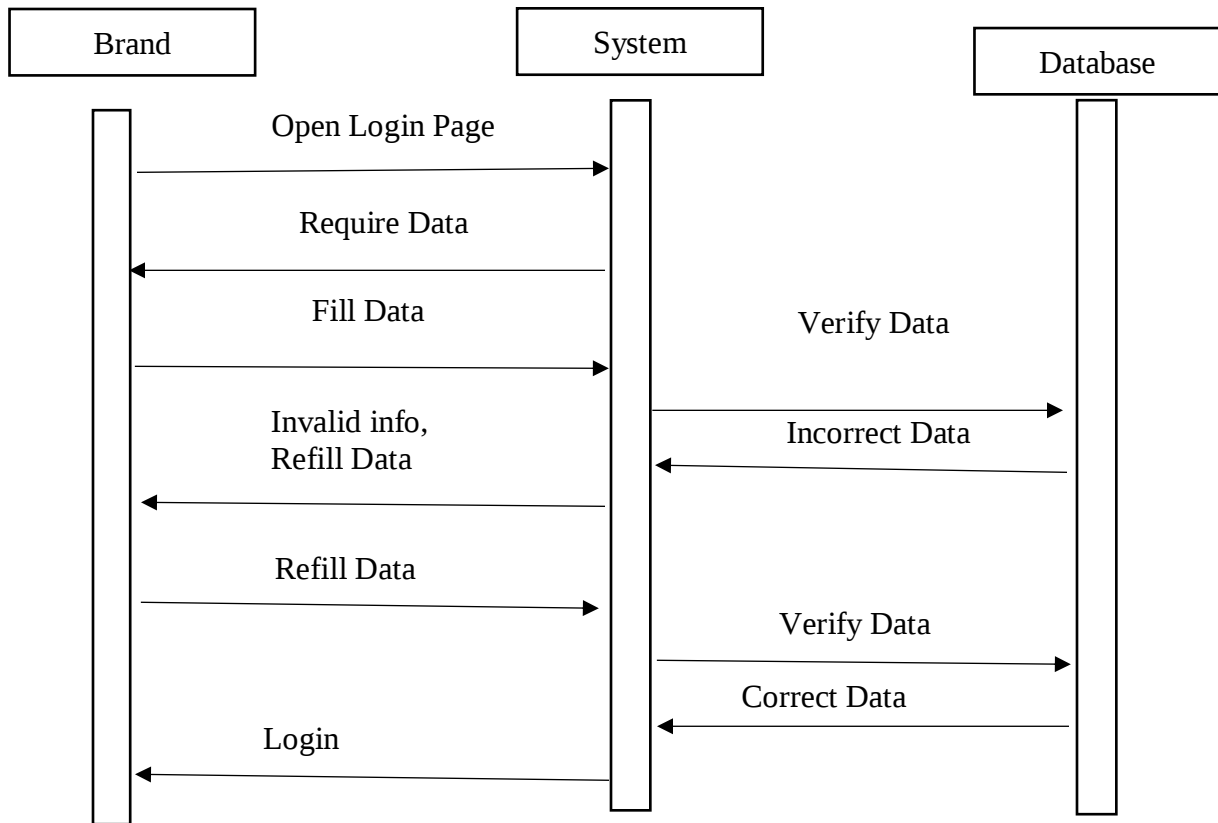


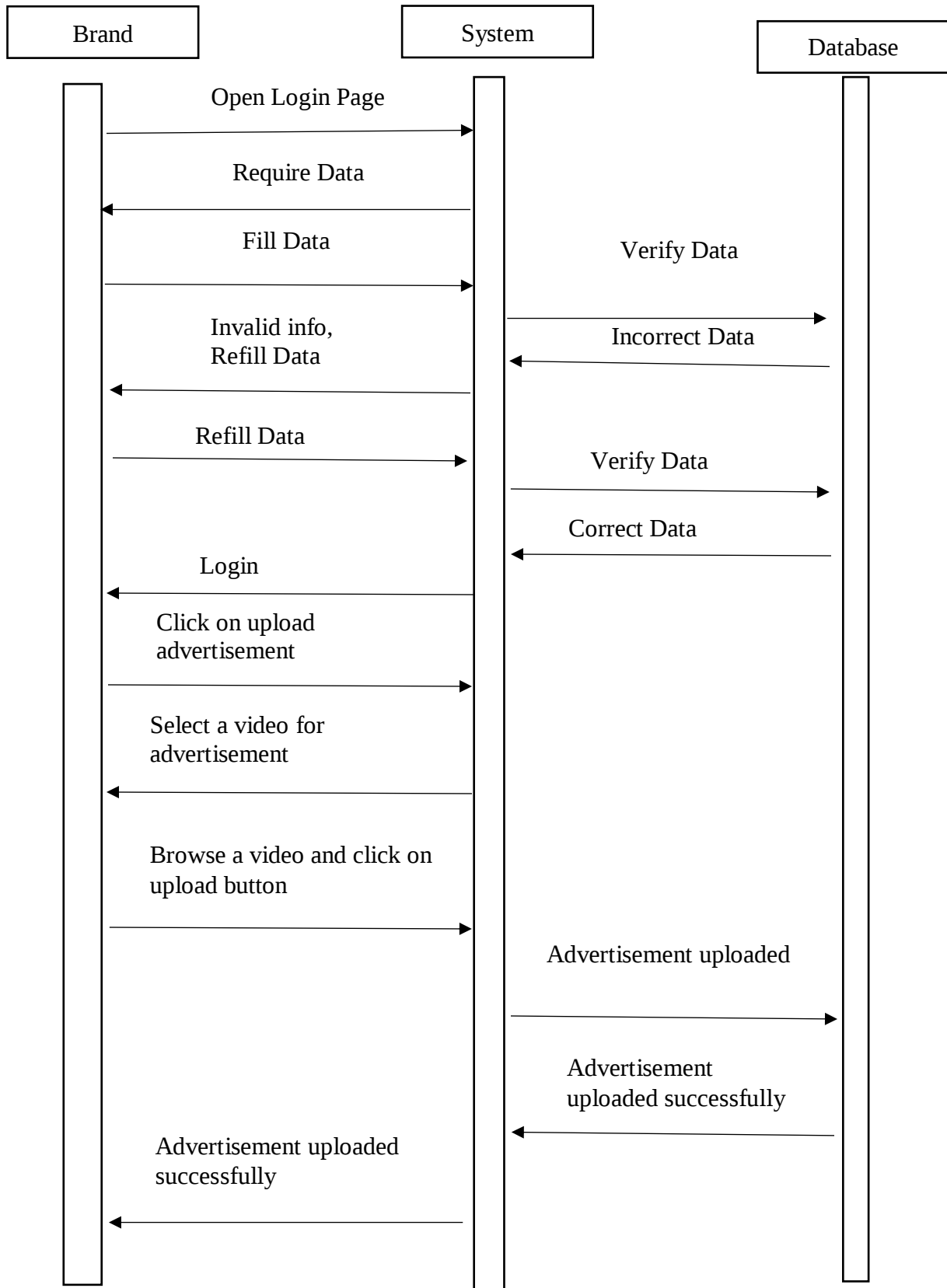
U.C.1.2 View Brands list

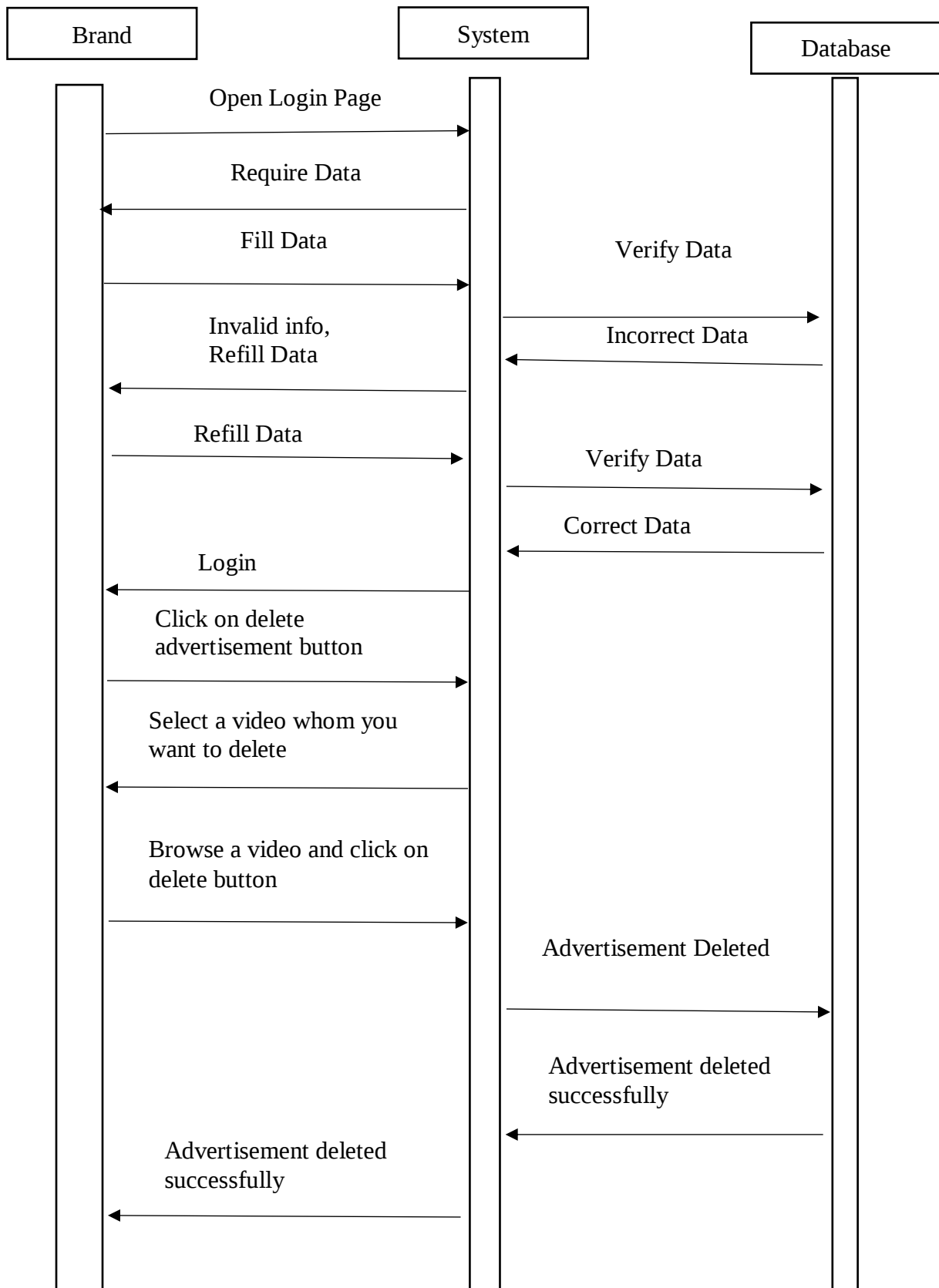
U.C.1.3 View sale products

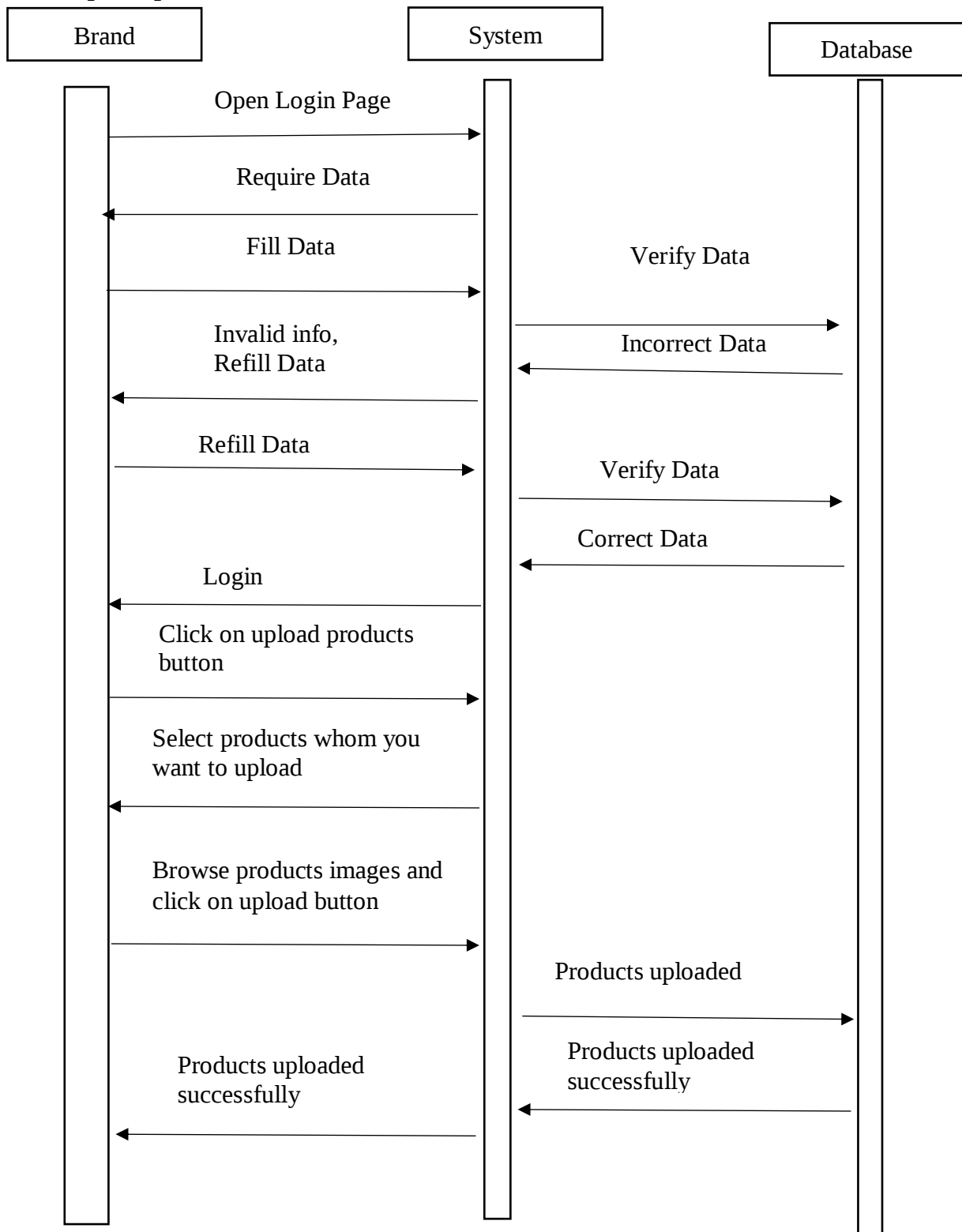
U.C.1.4 View products detail

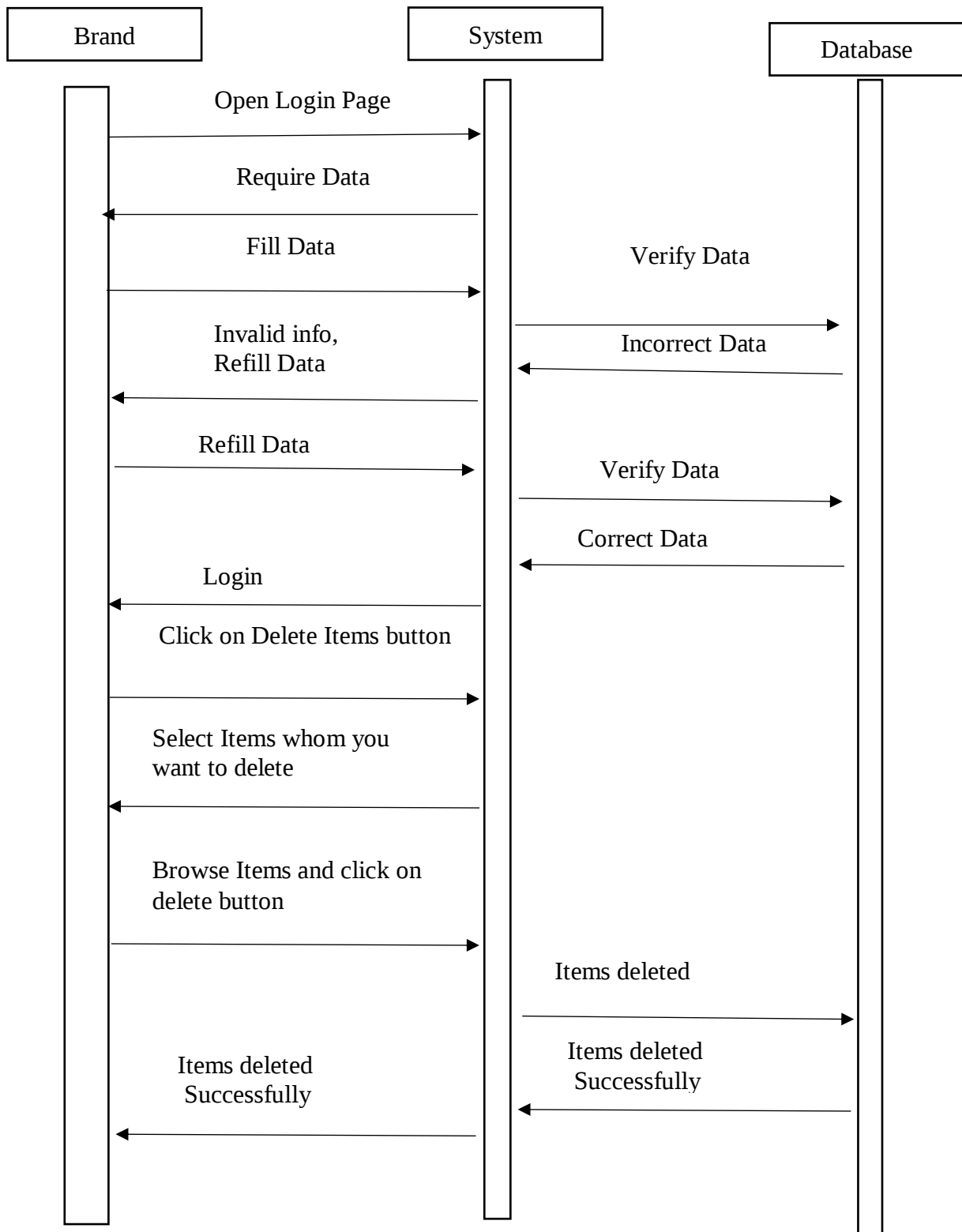
U.C.1.5 Check availability

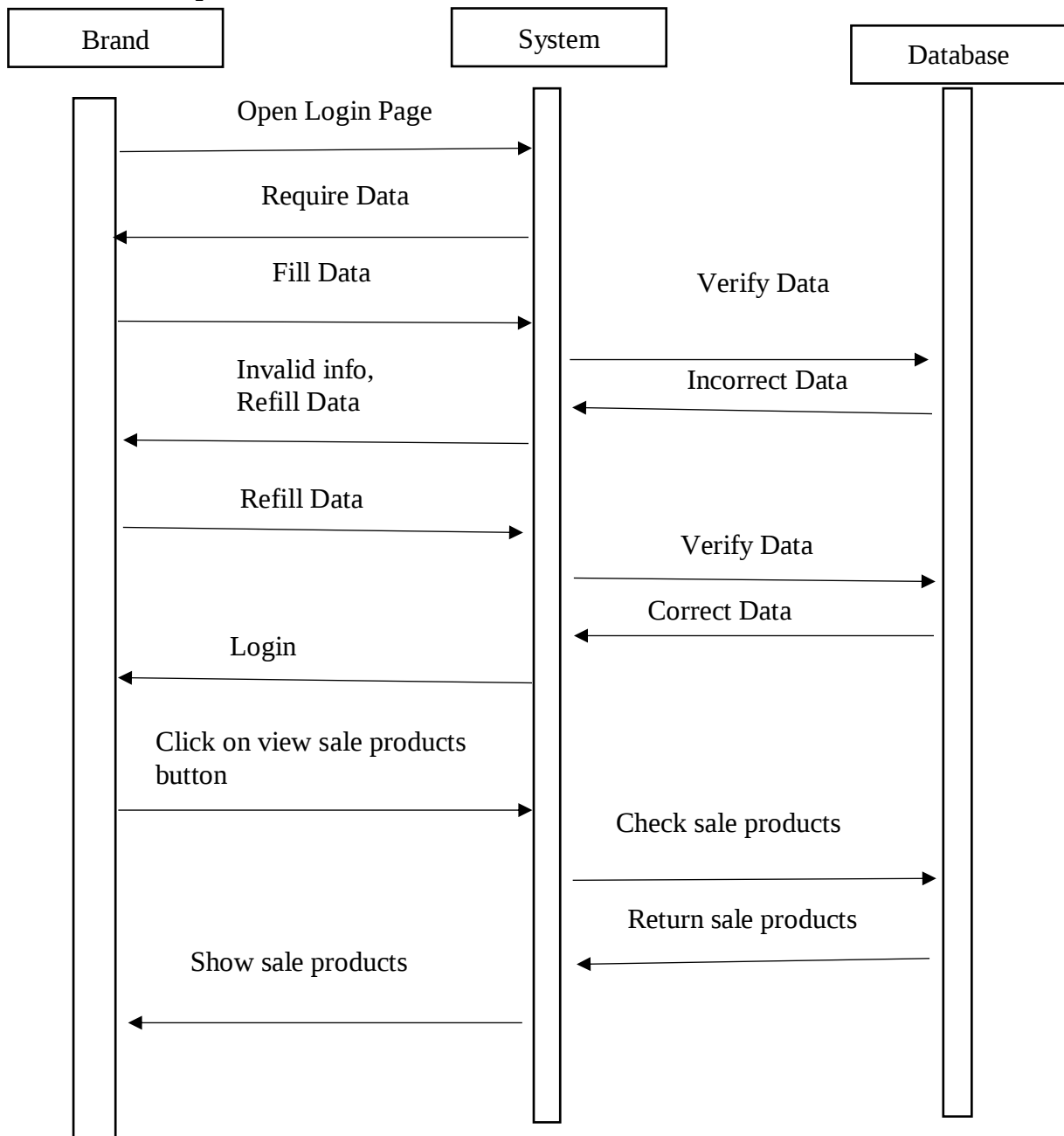
U.C.2.1 Login

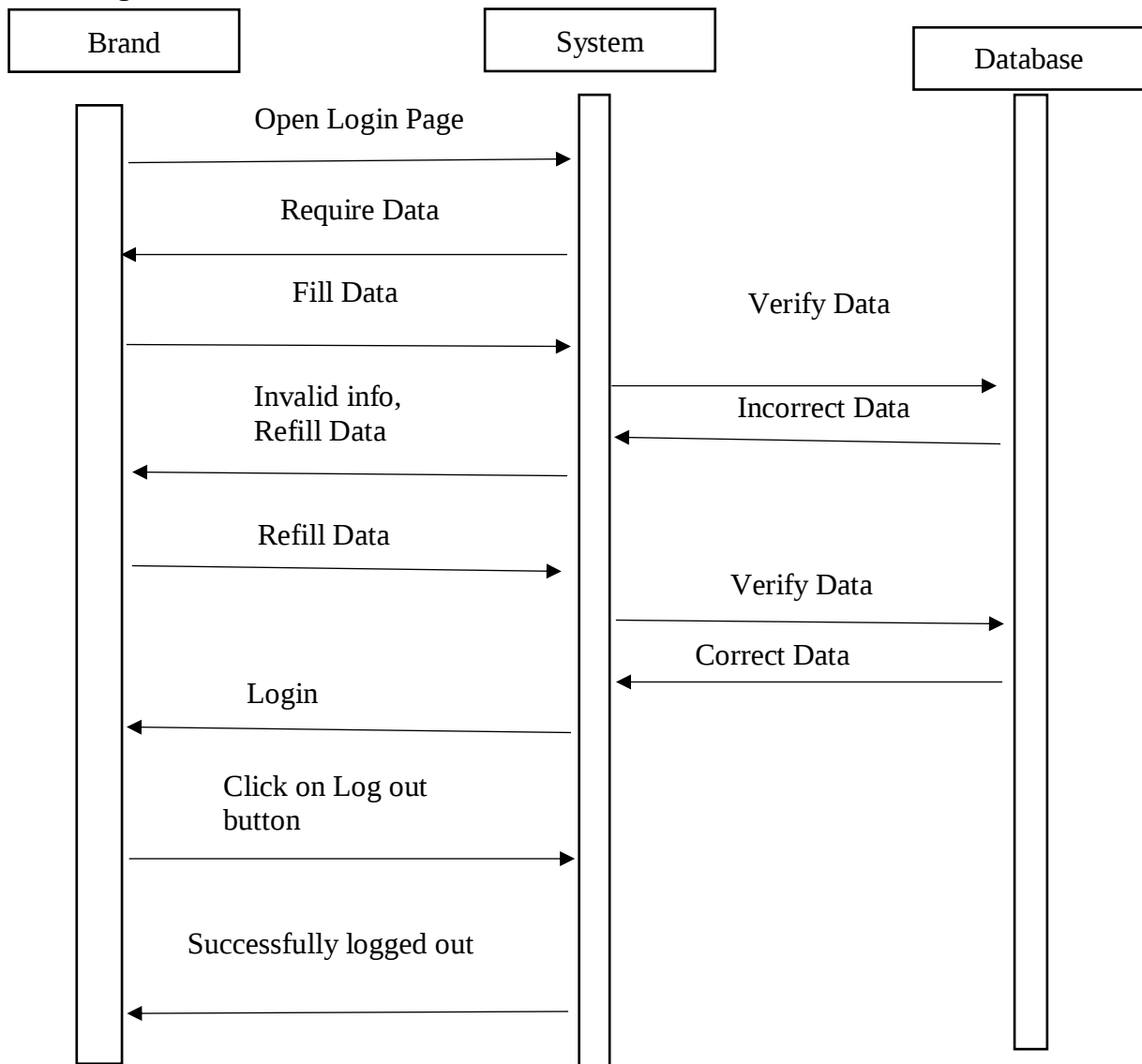
U.C.2.2 Upload Advertisement

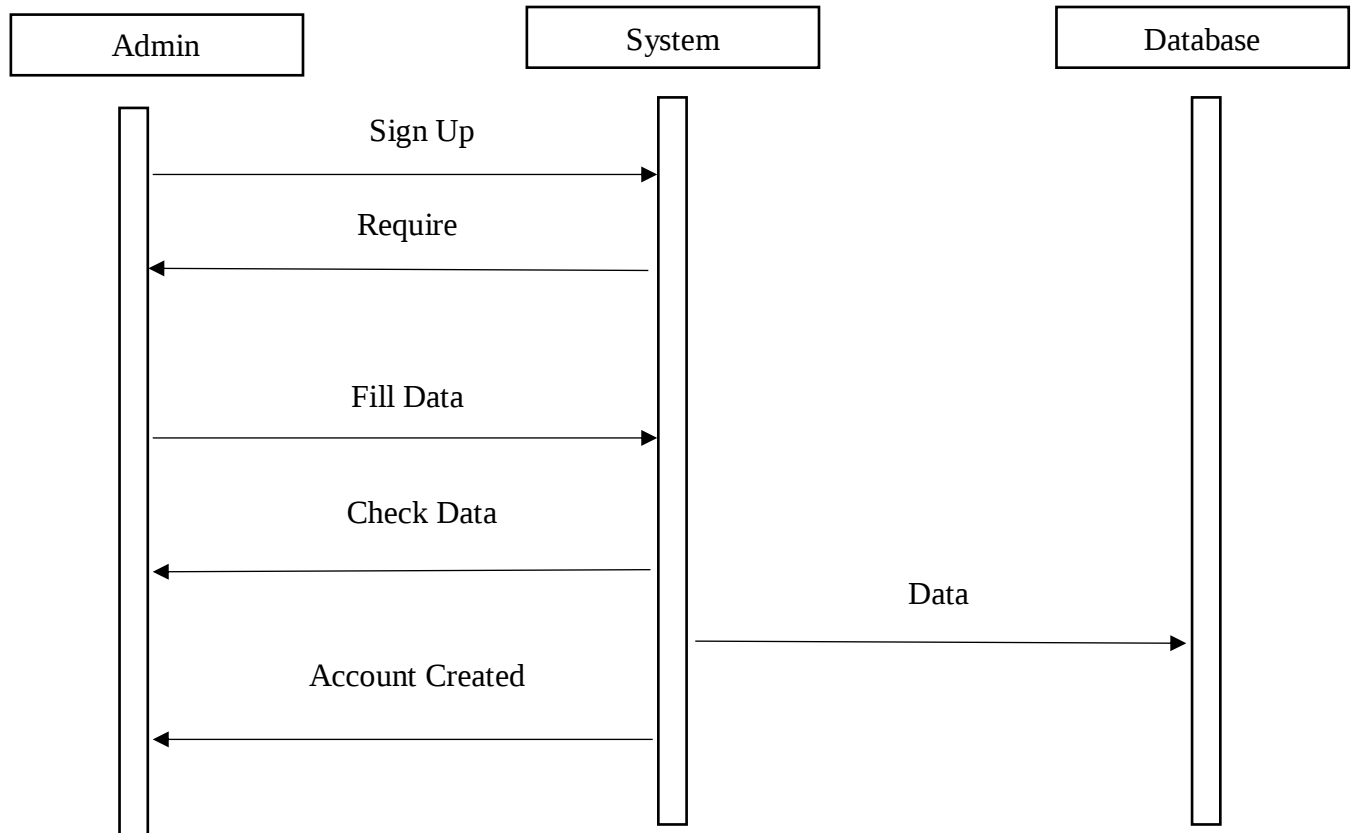
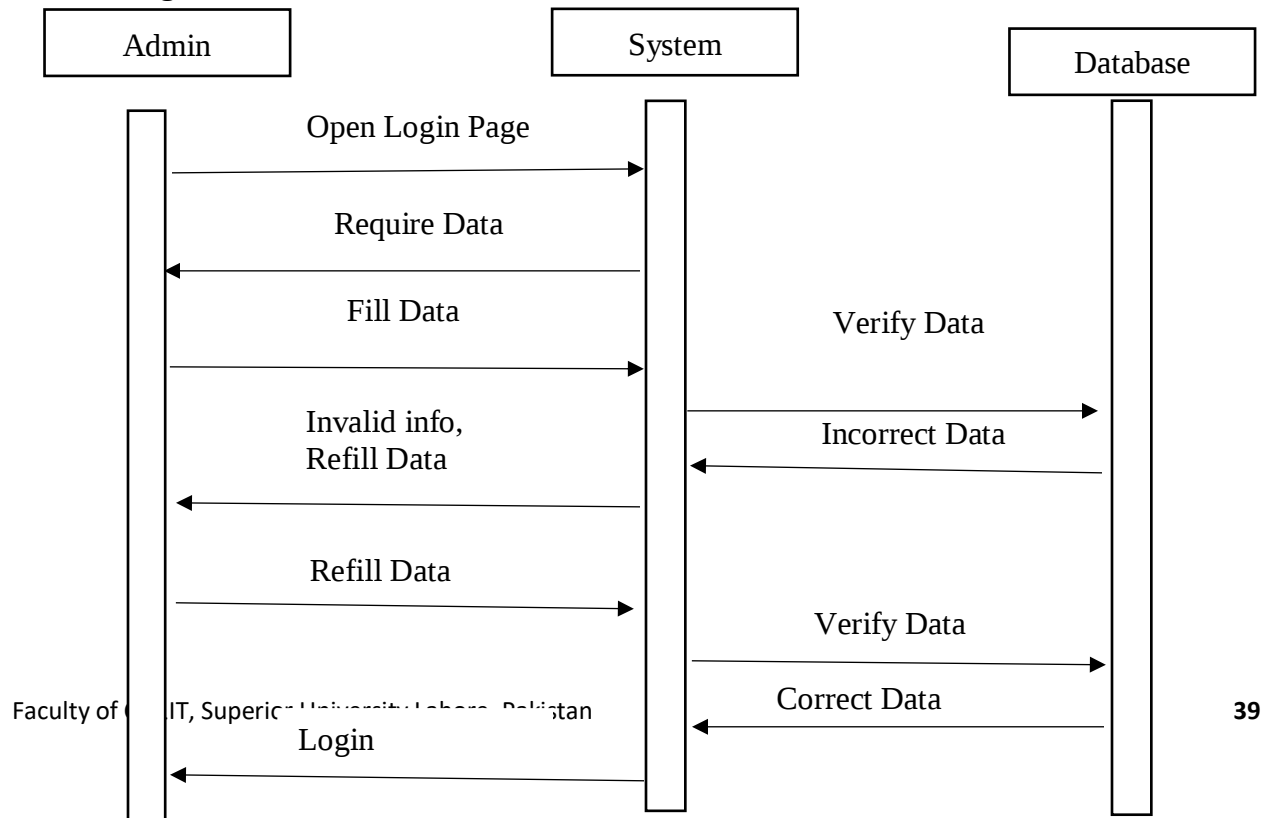
U.C.2.3 Delete Advertisement

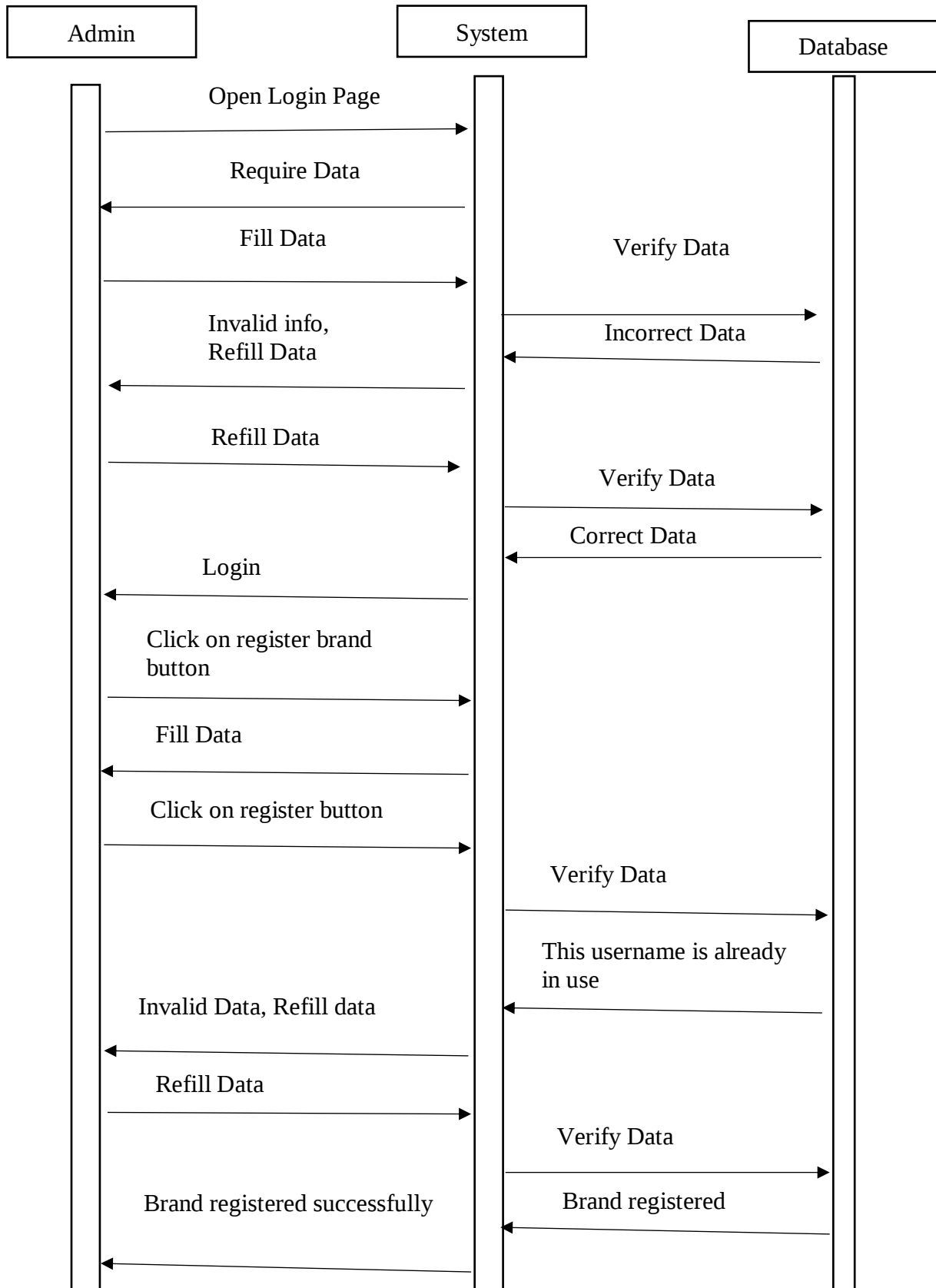
U.C.2.4 Upload products

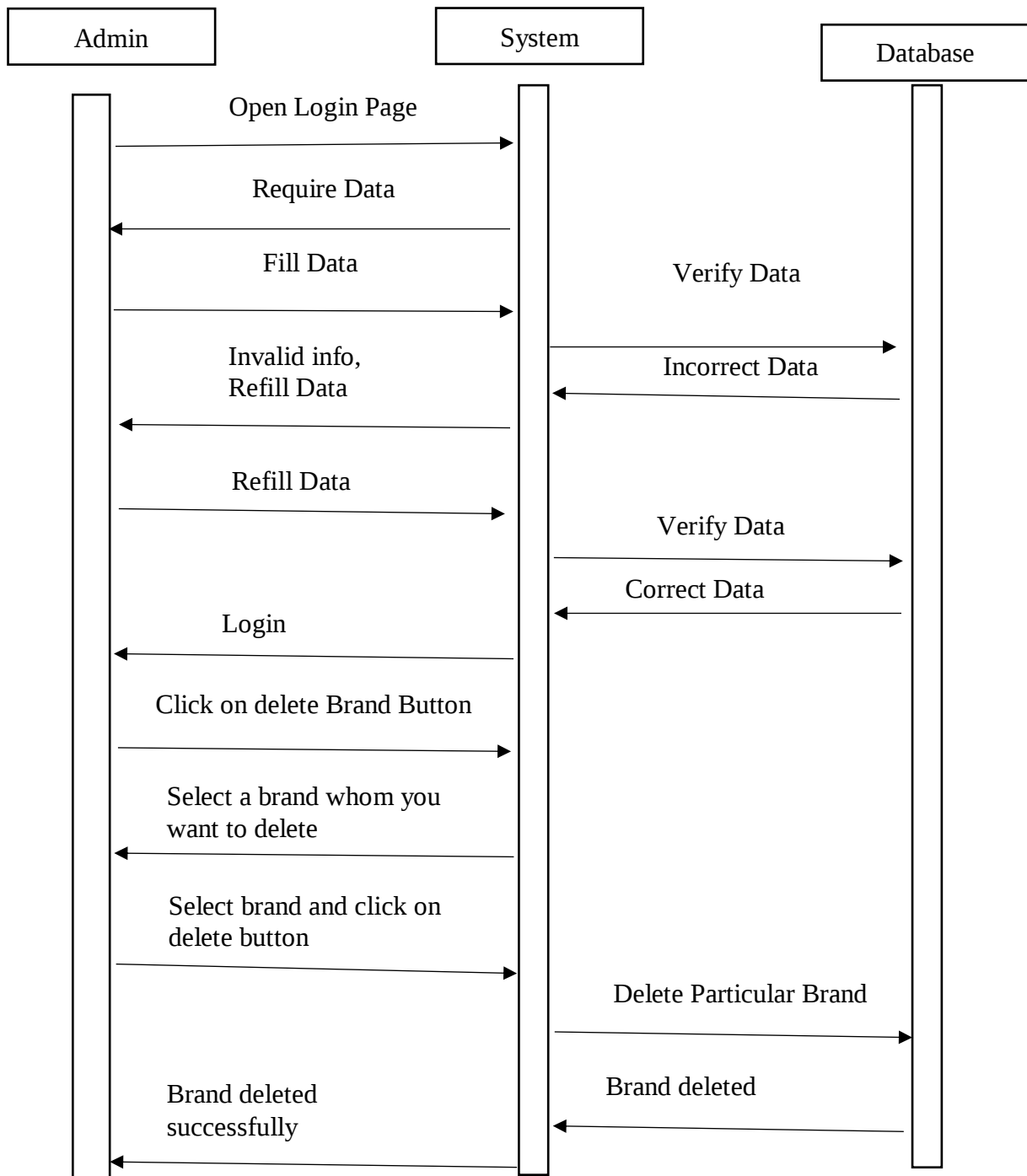
U.C.2.5 Delete Items

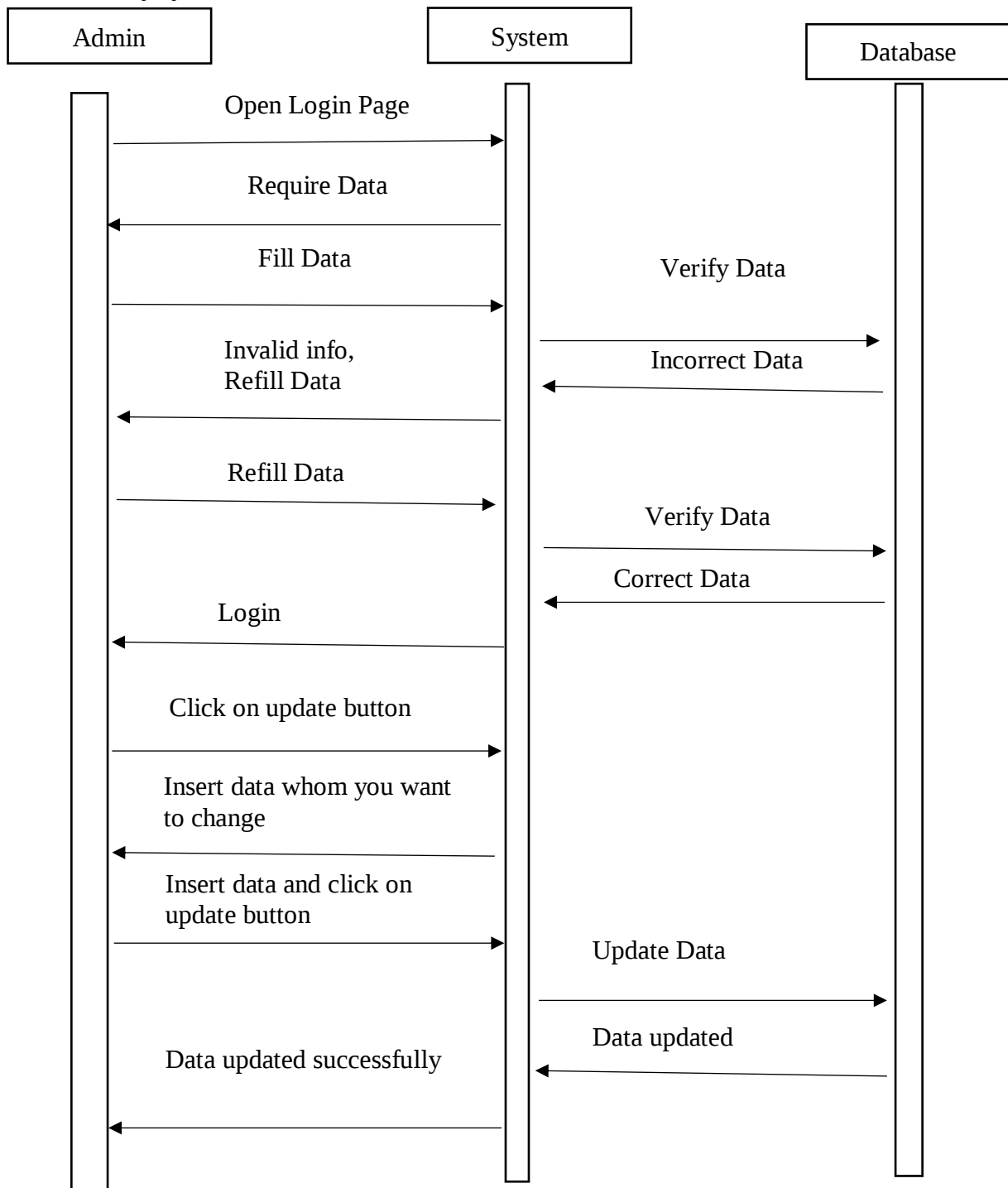
U.C.2.6 View sale products

U.C.2.7 Log out

U.C.3.1 Sign Up**U.C.3.2 Login**

U.C.3.3 Register Brand

U.C.3.4 Delete Brand

U.C.3.5 Modify system

4.6. Operation contracts

Preconditions

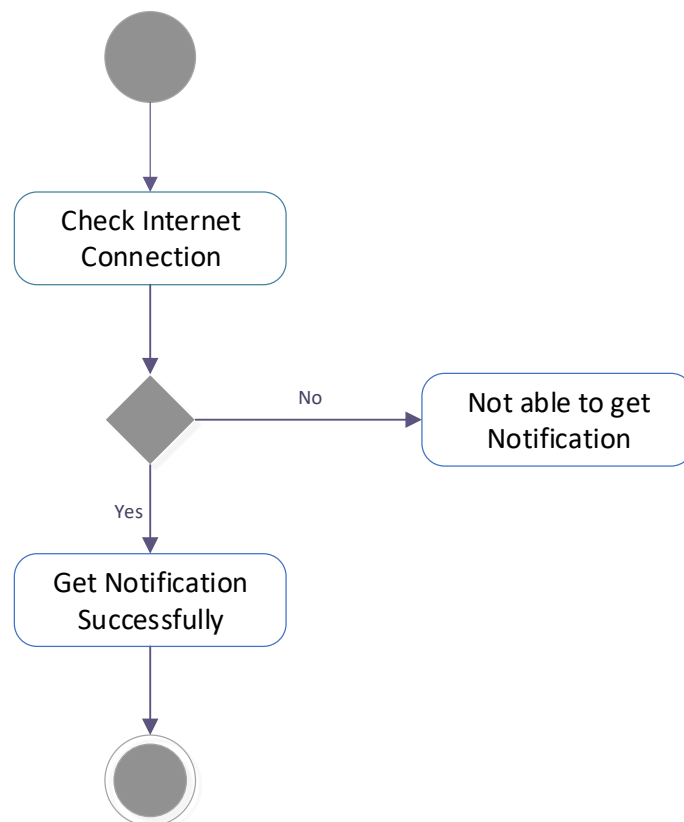
- Database has data.
- Database is accessible by the back-end server.
- Connection is established between the Android app and back-end server.

Post conditions

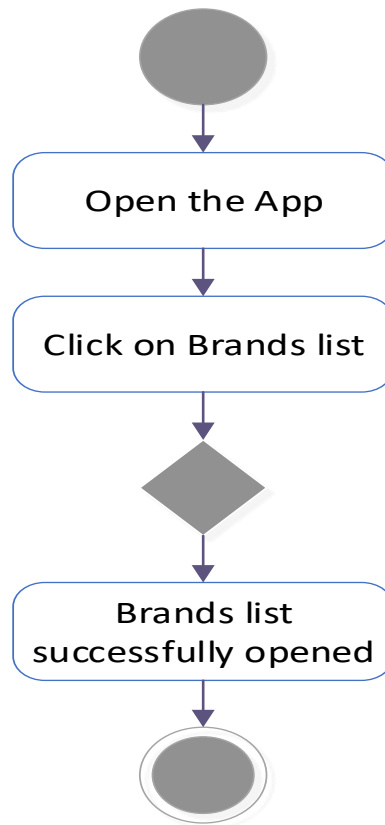
- Database is updated automatically.

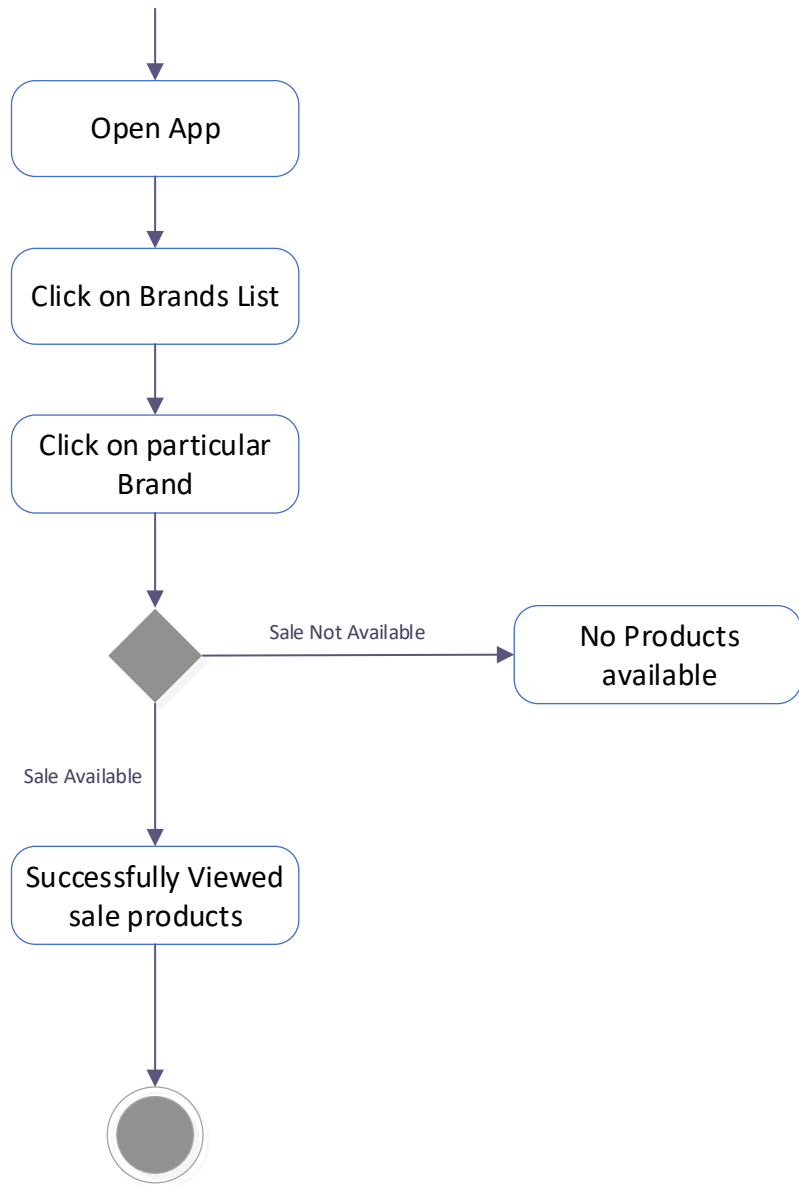
4.7. Activity Diagram

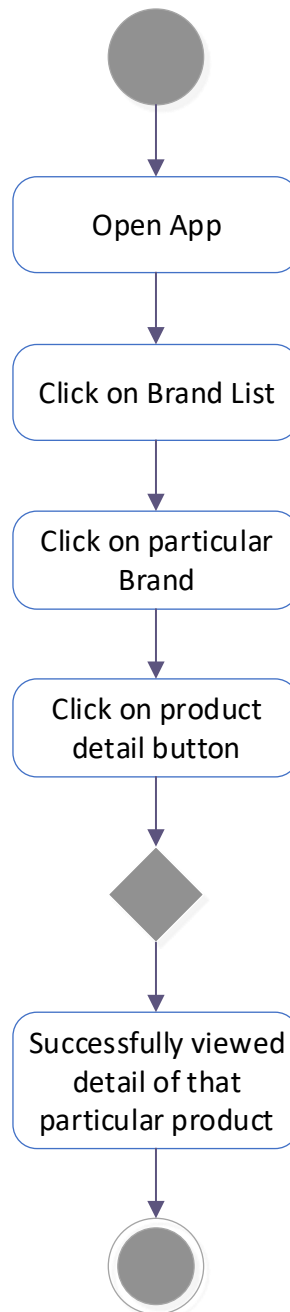
U.C 1.1 Get Notification

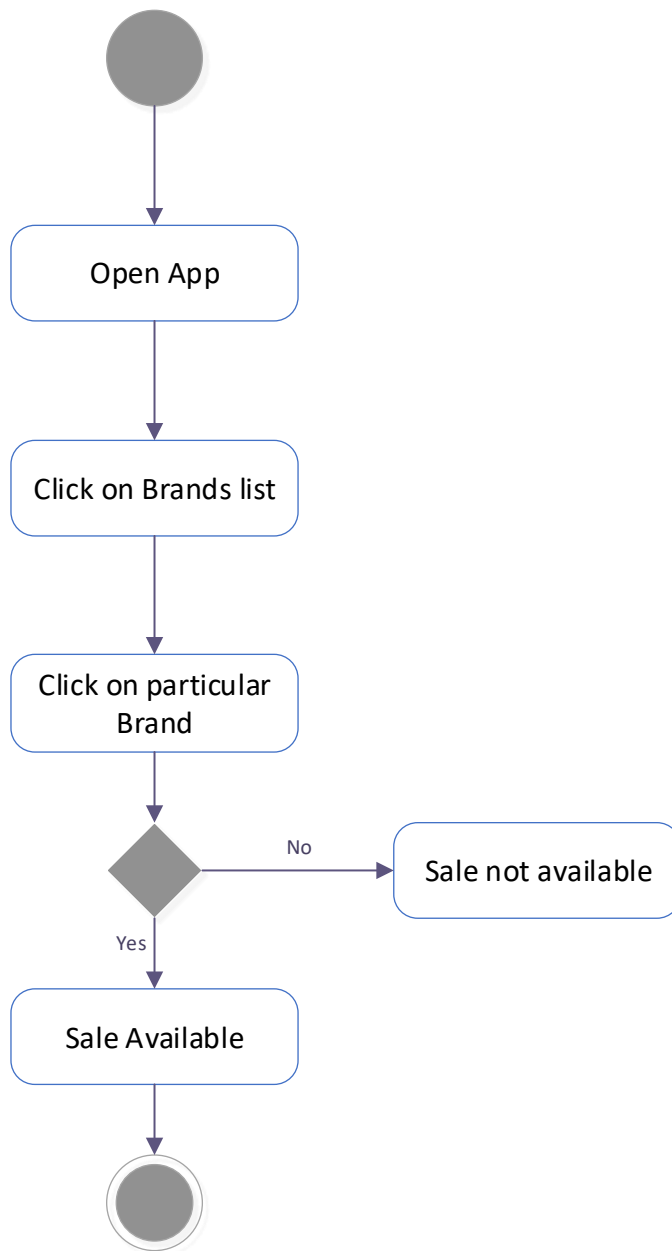


U.C.1.2 View Brands List



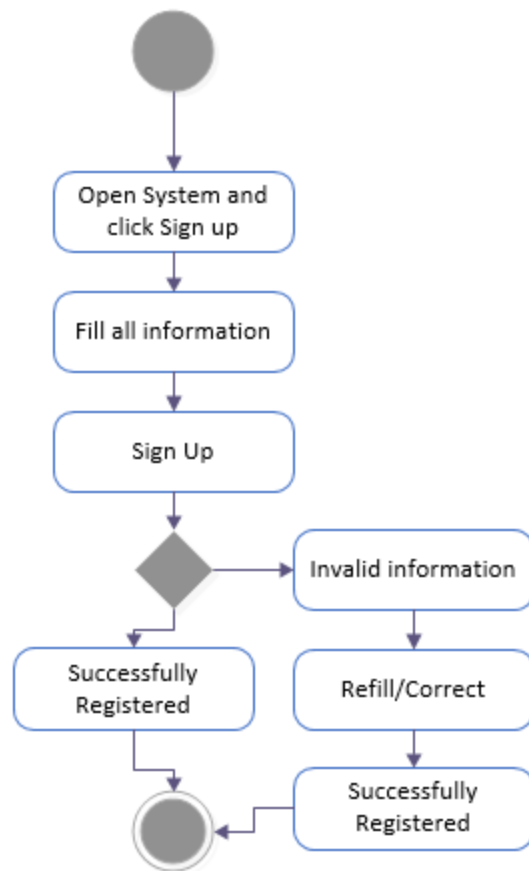
U.C.1.3 View Sale Products

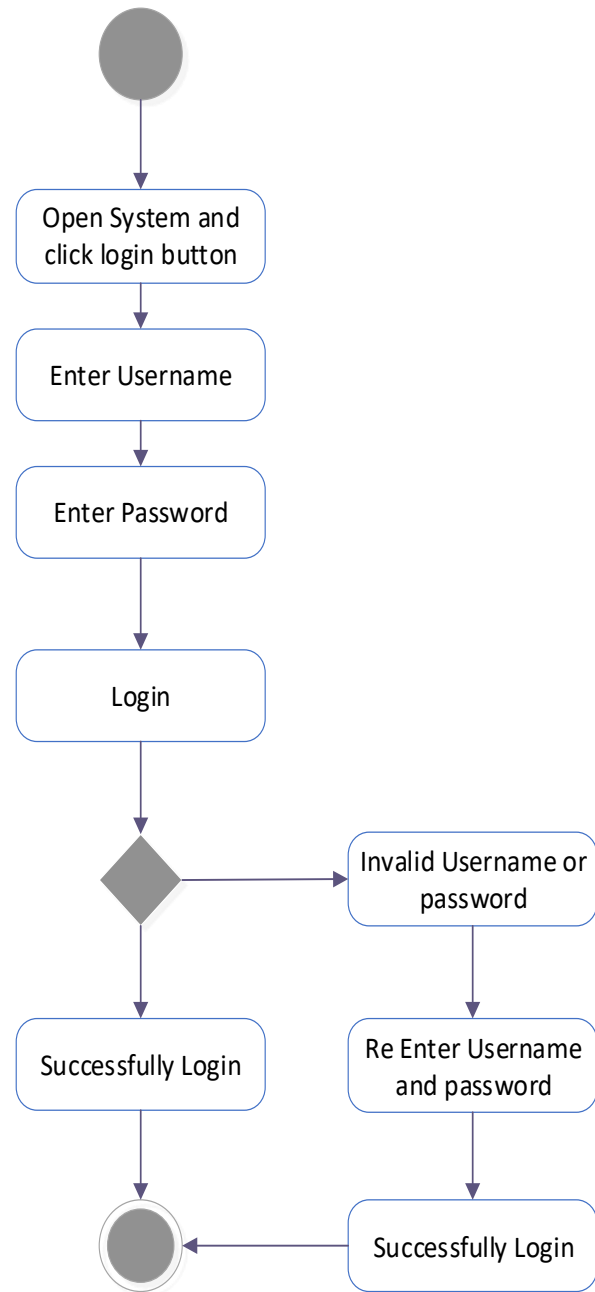
U.C.1.4 View Products Detail

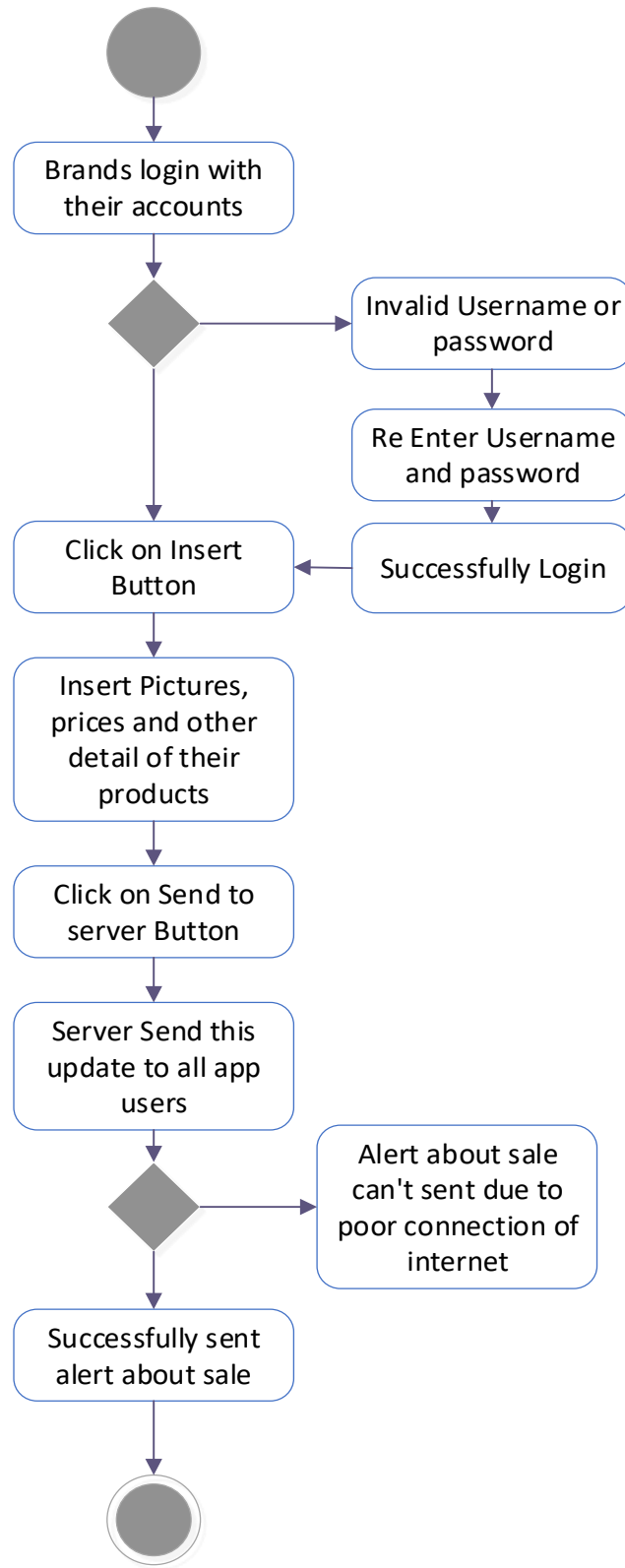
U.C.1.5 Check availability

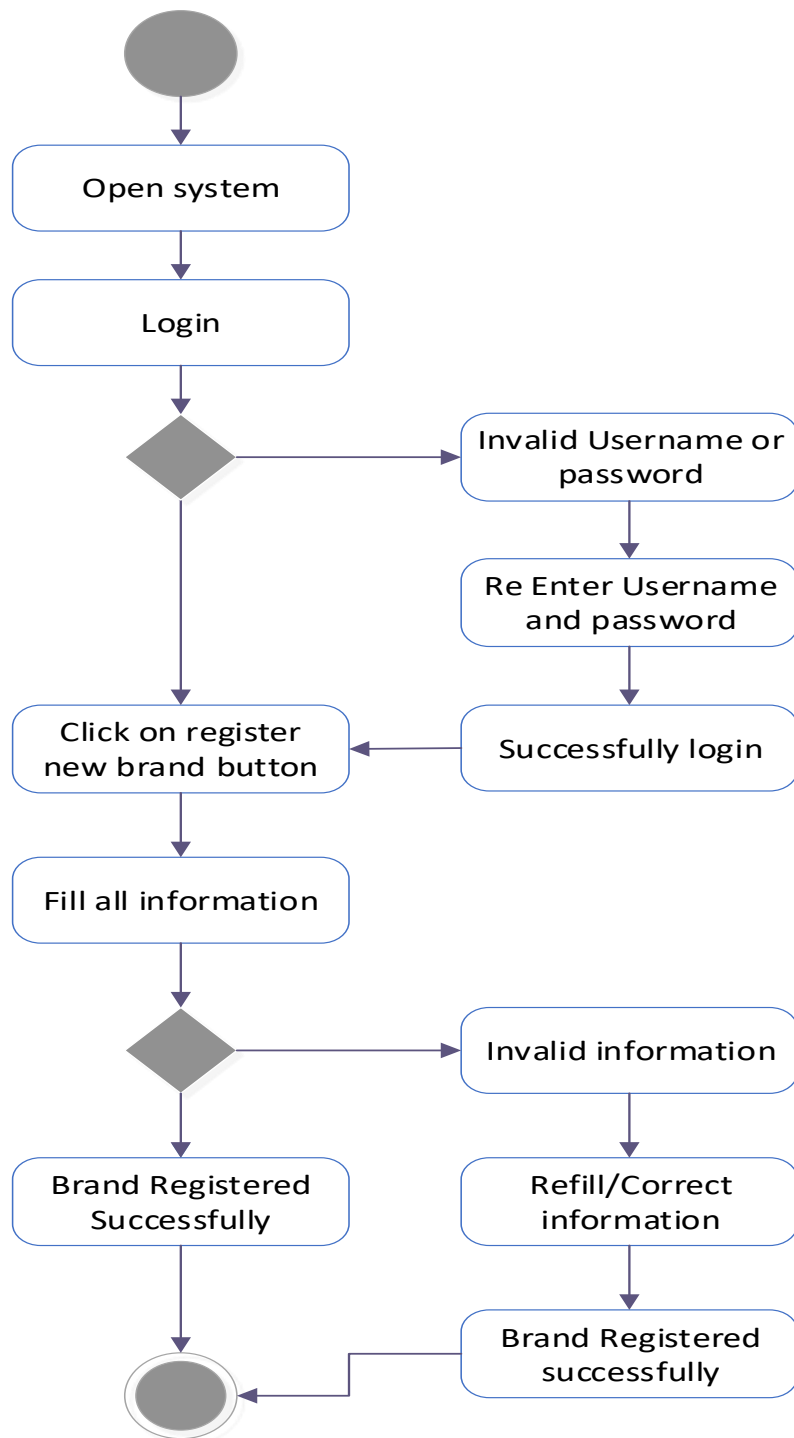
U.C.2 Admin

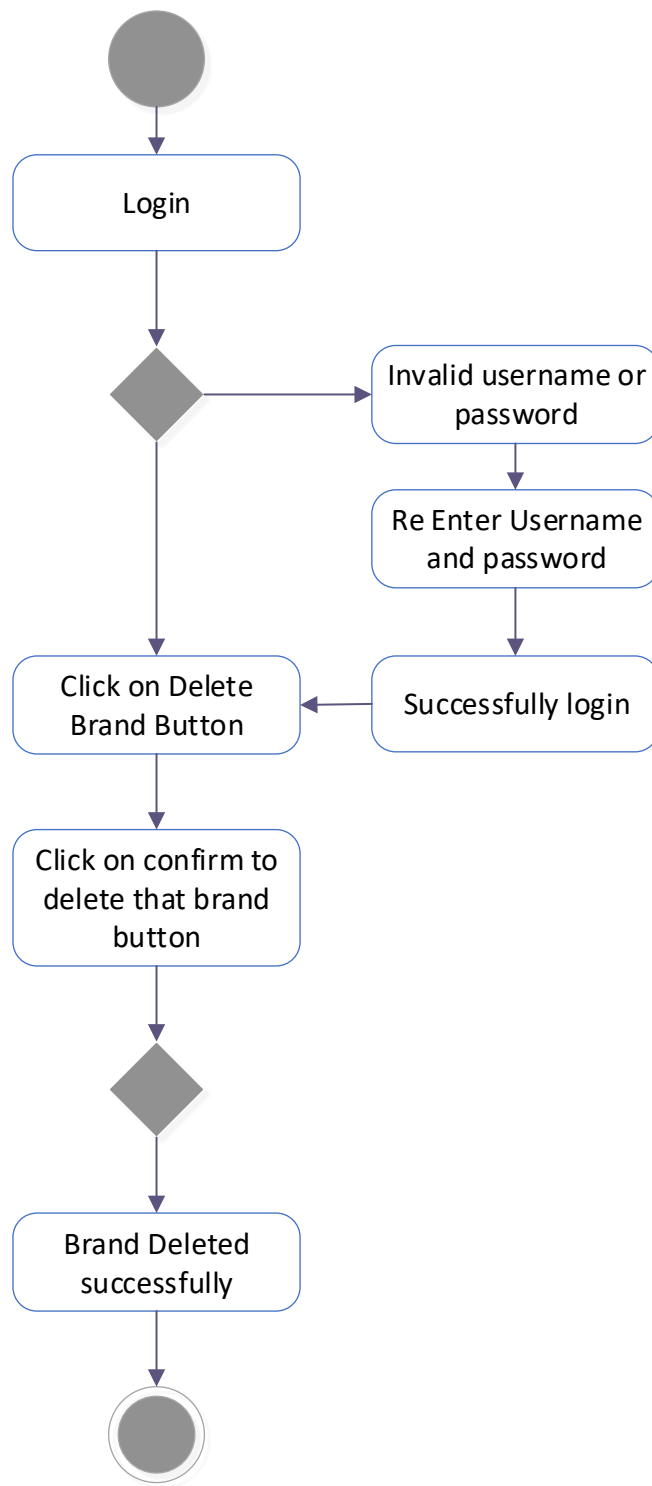
U.C.2.1 Register

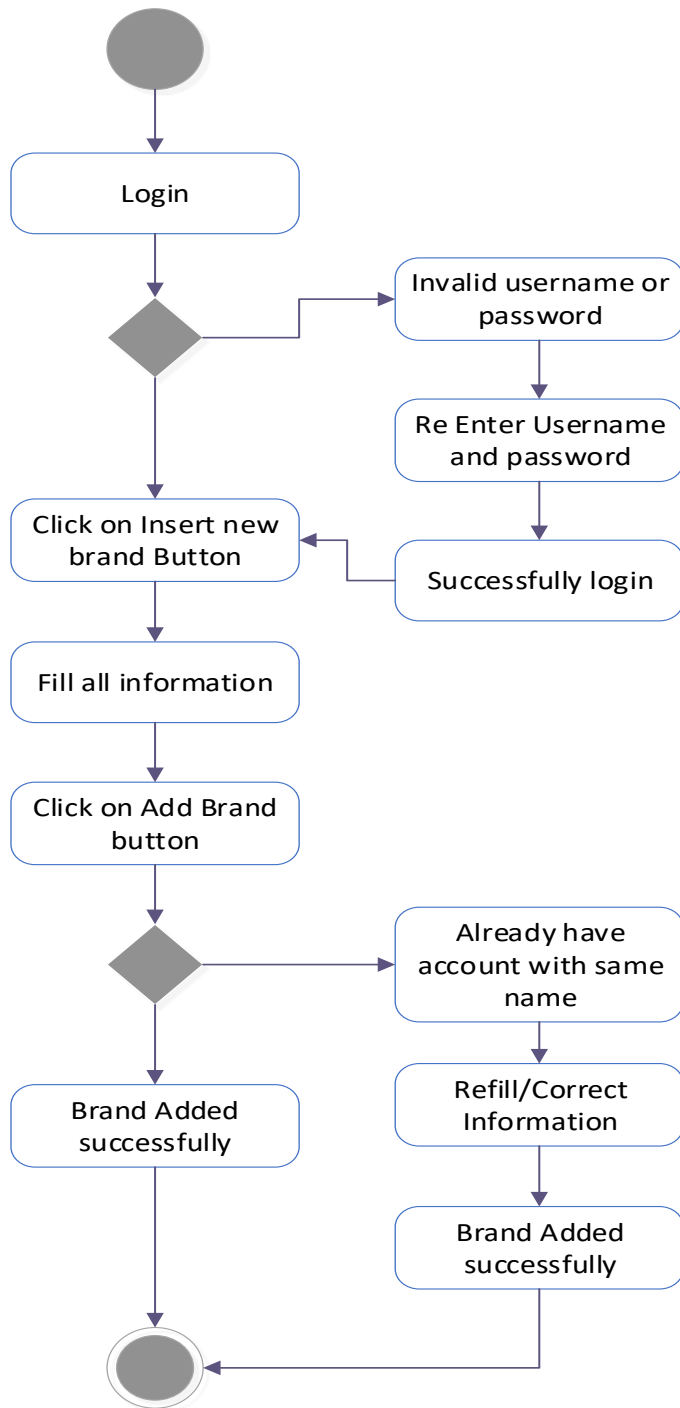


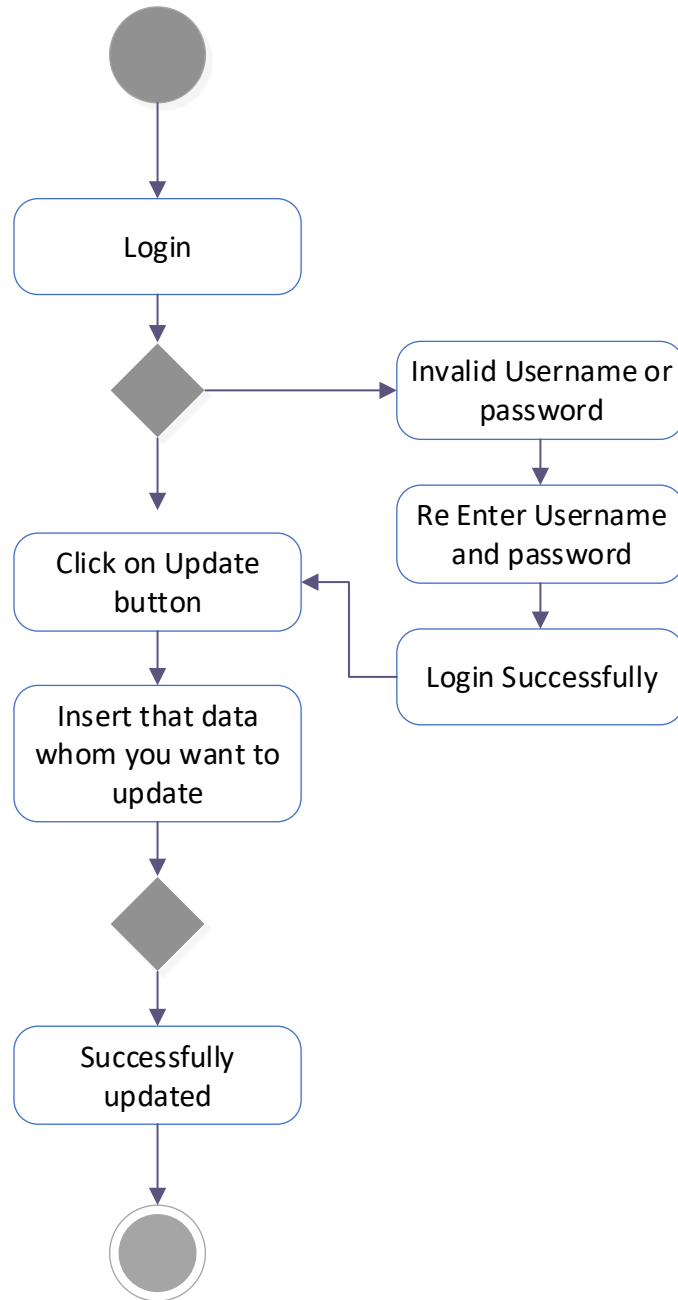
U.C.2.2 Login

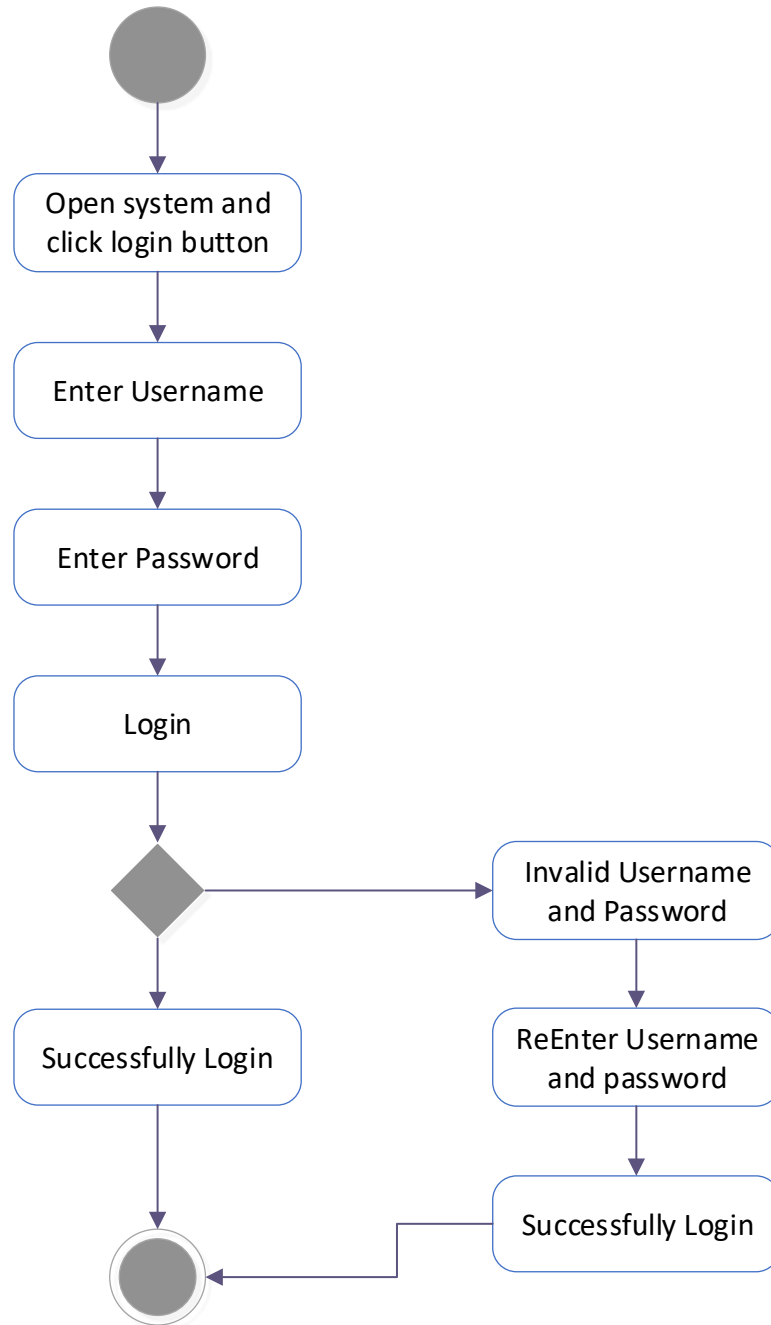
U.C.2.3 Sent alert to user about sale

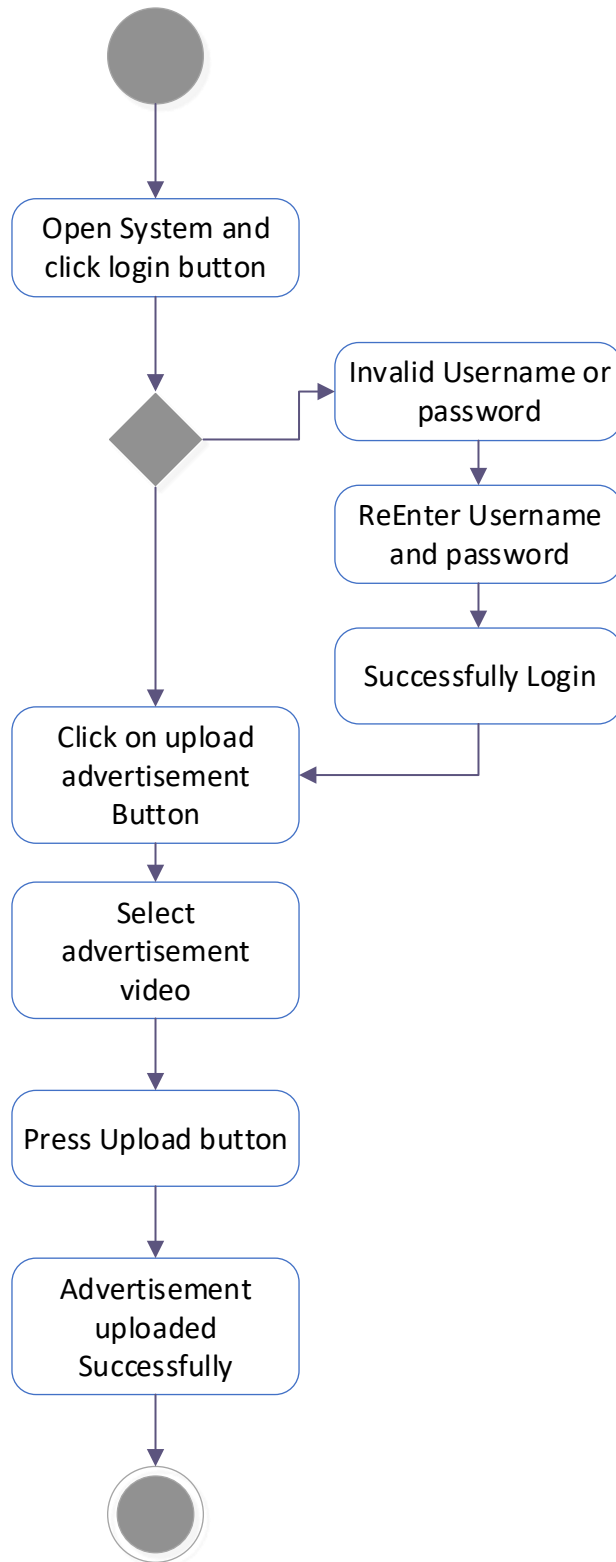
U.C.2.4 Register Brands

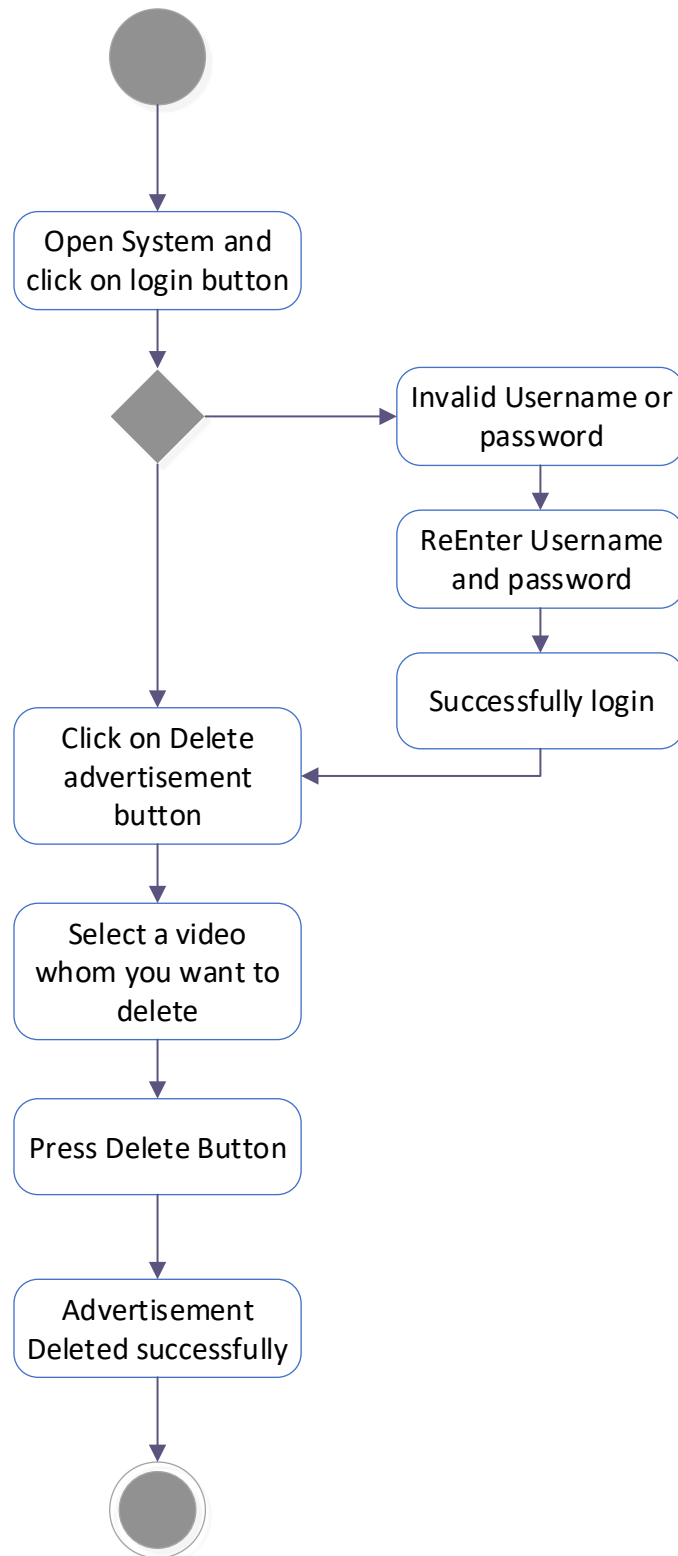
U.C.2.5 Delete Brand

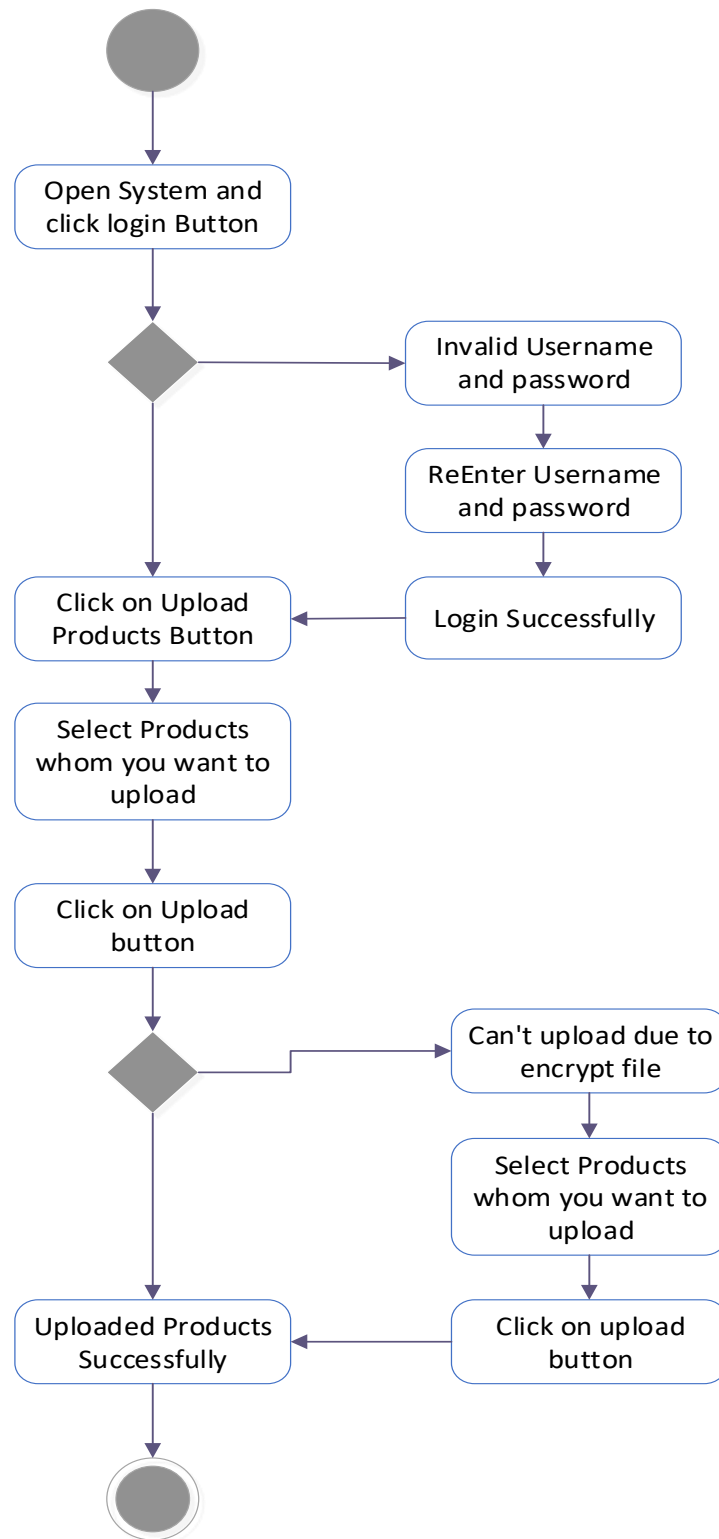
U.C.2.6 Add Brand

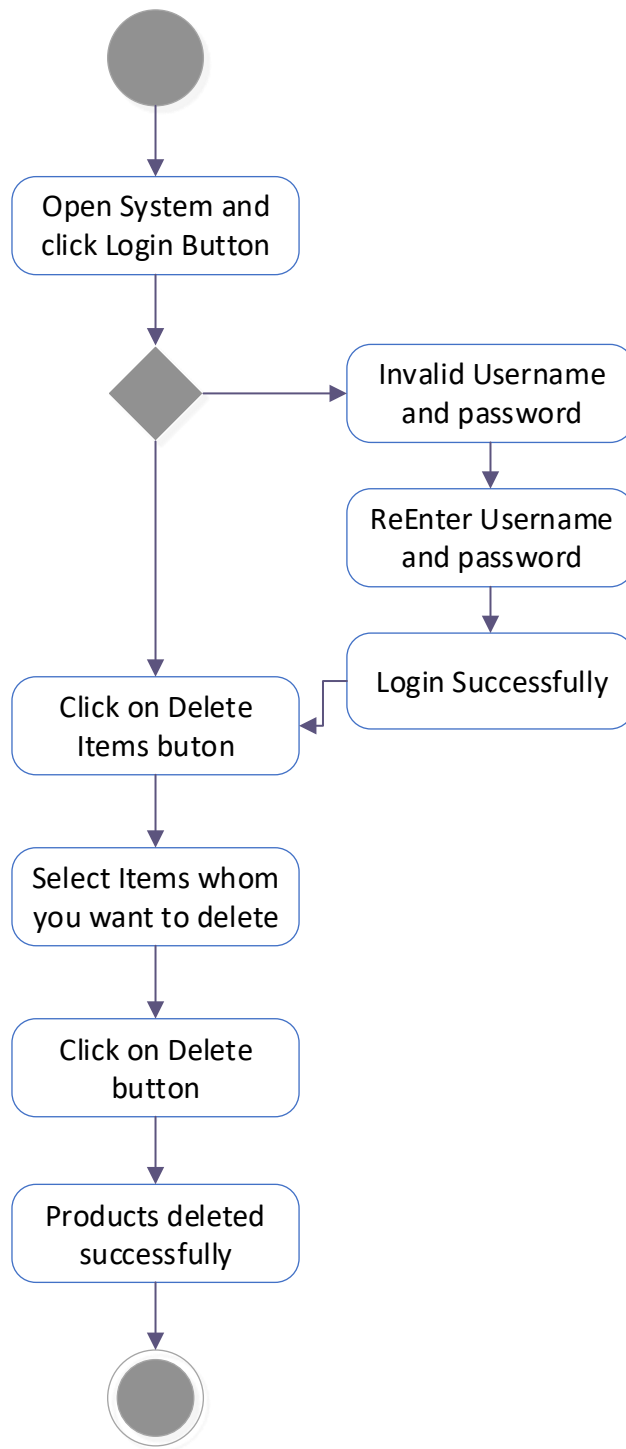
U.C.2.7 Modify System

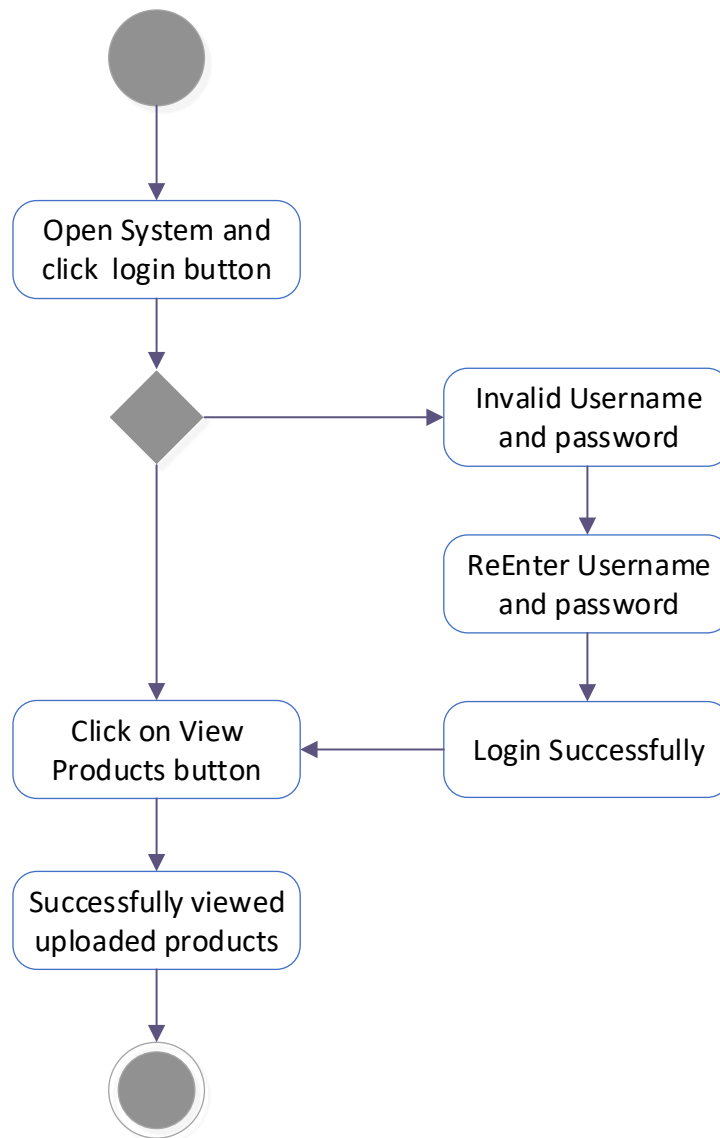
U.C.3 Brand

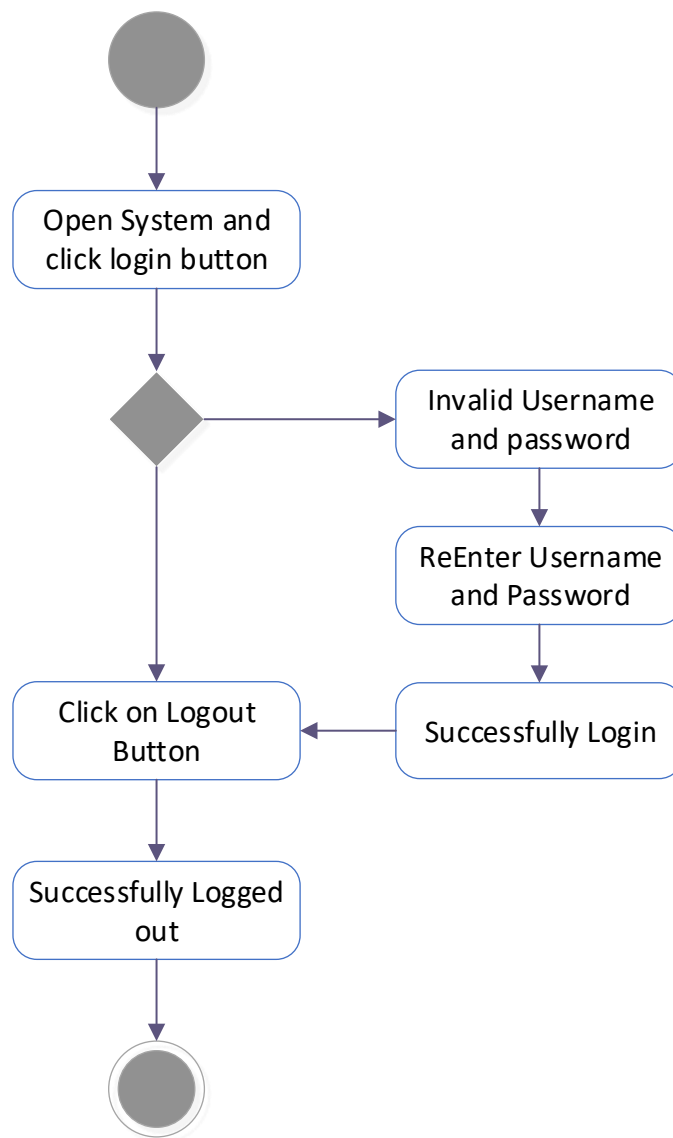
U.C.3.2 Upload Advertisement

U.C.3.3 Delete Advertisement

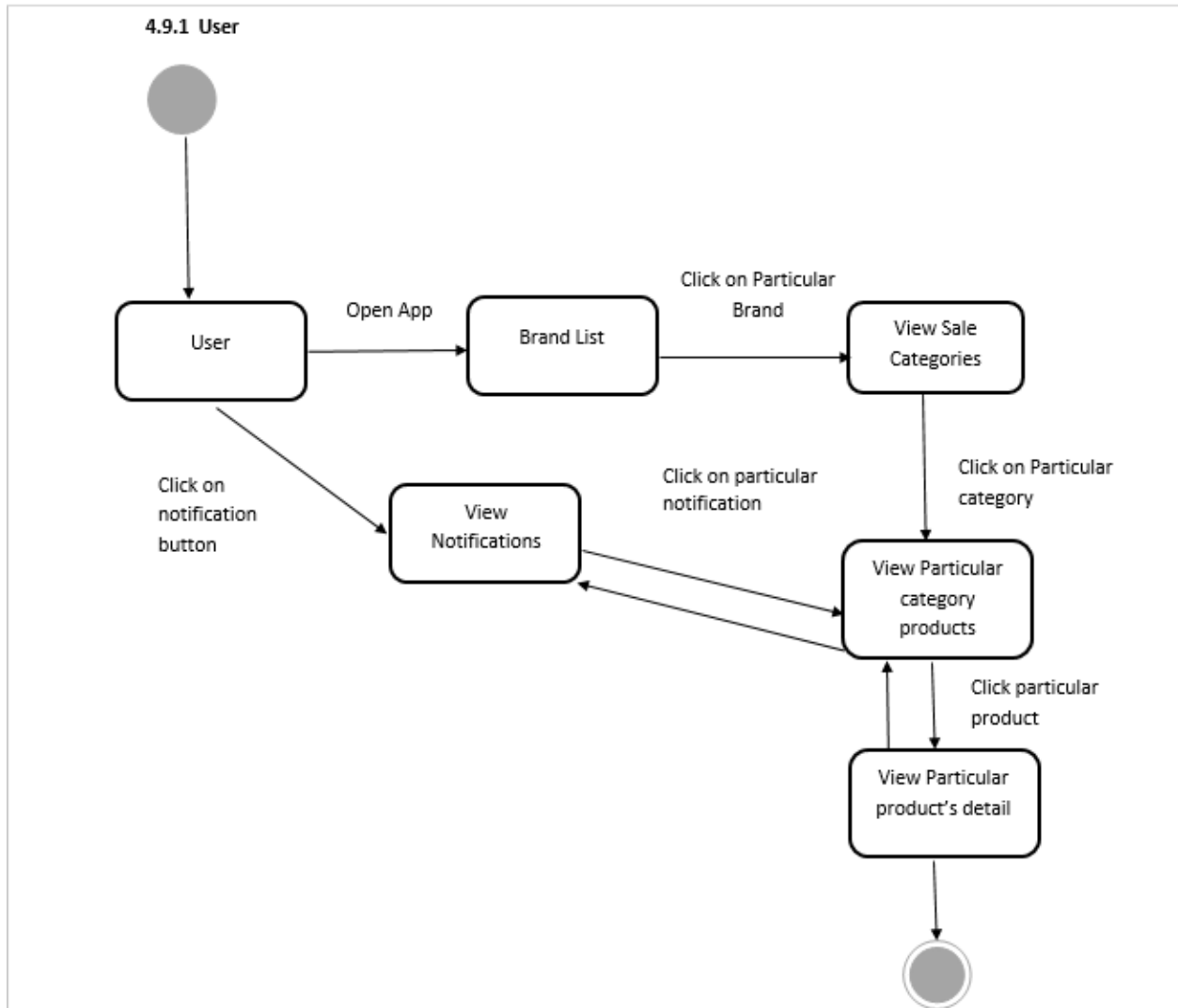
U.C.3.4 Upload Products

U.C.3.5 Delete Products

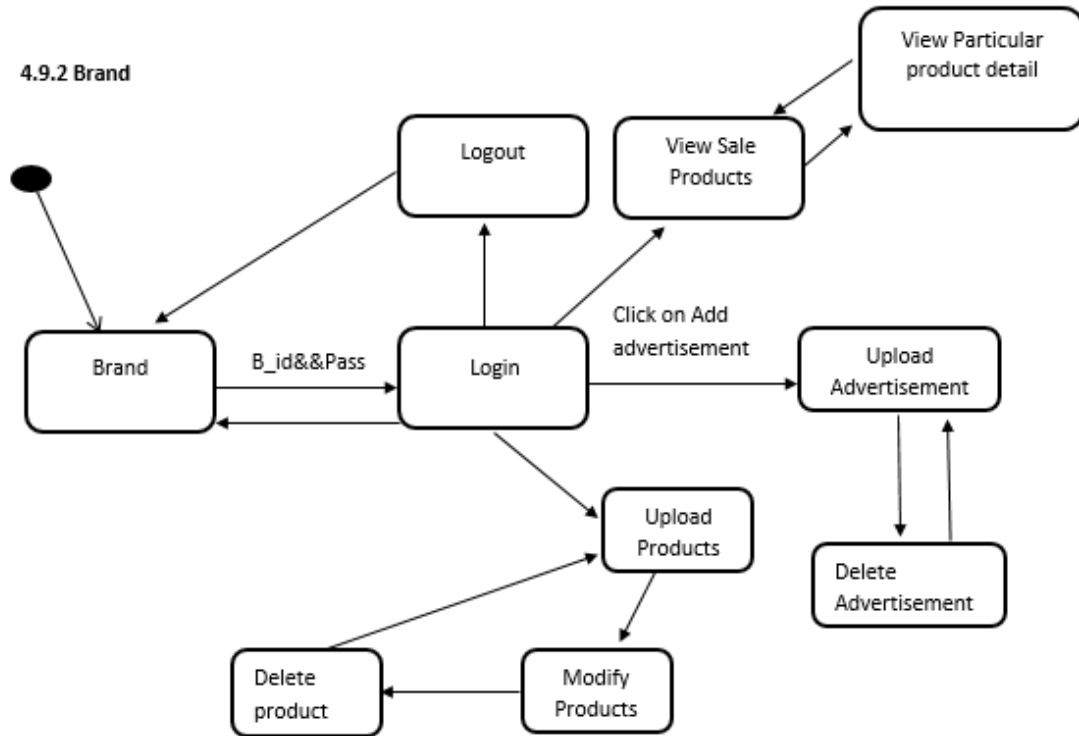
U.C.3.6 View Sale Products

U.C.3.7 Log Out

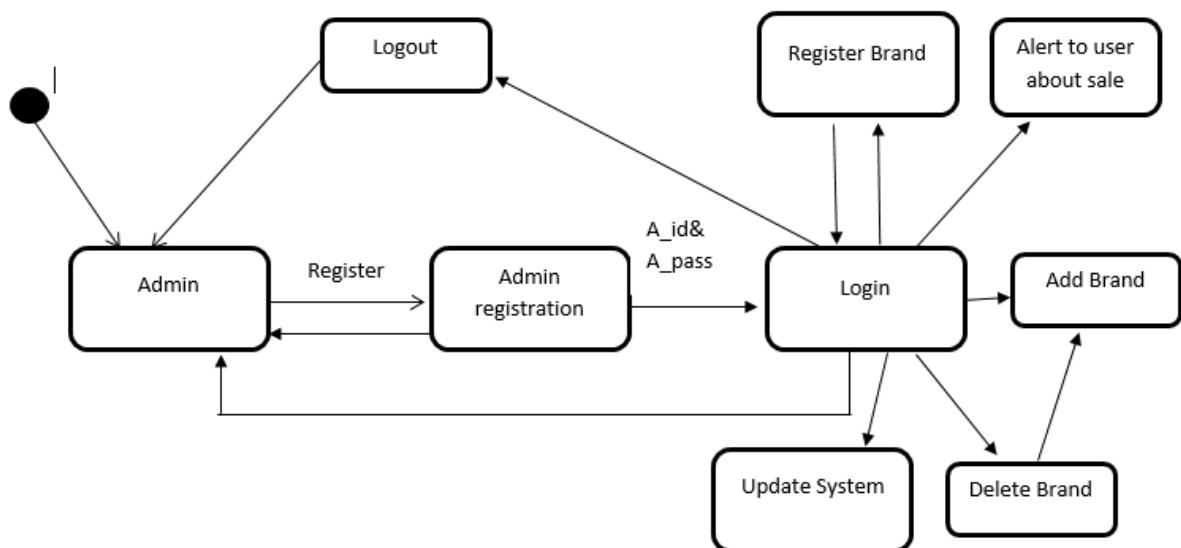
4.8. State Transition Diagram



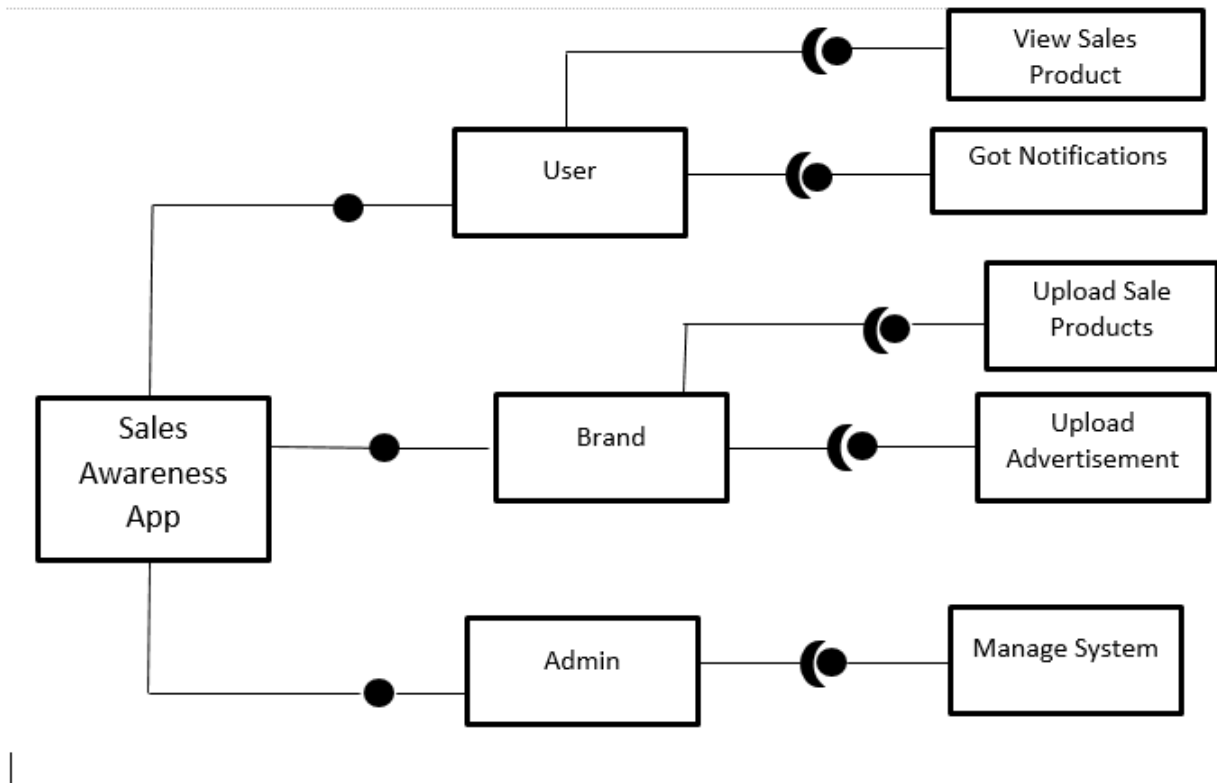
4.9.2 Brand



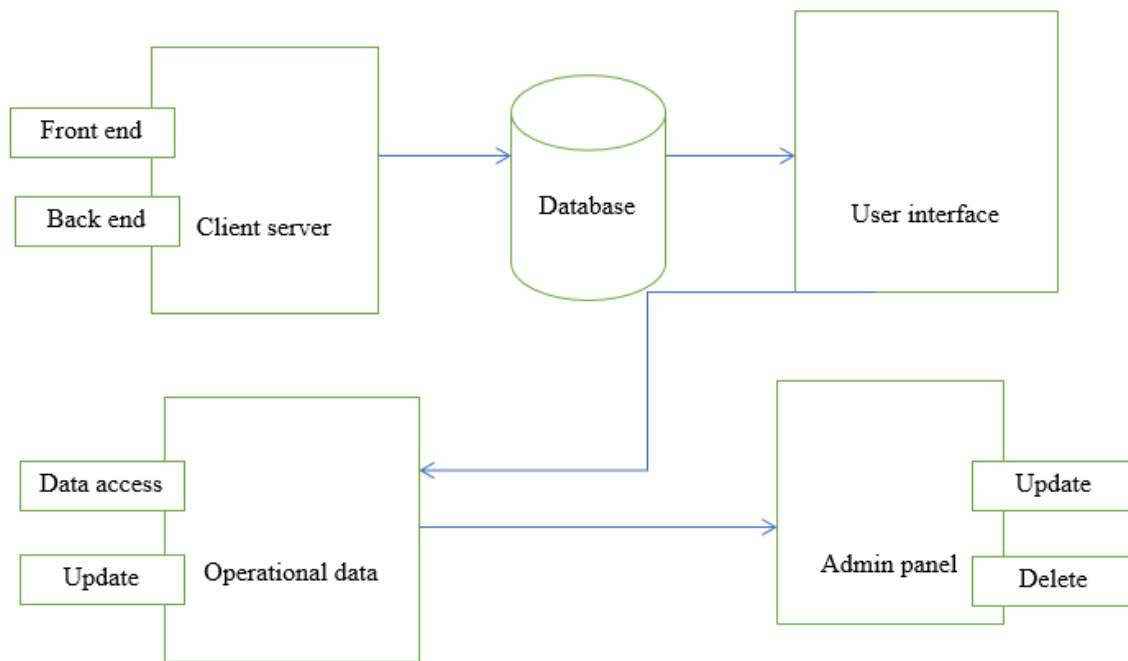
4.9.3 Admin



4.9. Component Diagram



4.10. Deployment Diagram



Chapter 5

Implementation

Chapter 5: Implementation

We will implement this application on Google play store all the android users will be able to download it. Implementation describes how the application and back-end functionalities will be implemented practically. Android application will be developed on Android Studio and database will be designed in SQL SERVER and back-end functionalities will be configured and designed on Visual Studio. Application will communicate with backend server through web APIs.

5.1. Important Flow Control/Pseudo codes

This phase will describe the flow of our Application working:

- Assign accounts to brands.
- Brands sign in to their accounts.
- Brands Upload and modify their sale products with details.
- User open the Application.

- User see the brand which are on sale and their sale products.
- User closes the app.
- User get alerts about the Sale.

5.2. Components, Libraries, Web Services and stubs

Brands, Products, Database, mobile application and web based back-end server are the components of SALE AWARENESS. JSON library is used to develop the APIs through which Android application and back-end server will communicate with each other.

5.3. Deployment Environment

SALE AWARENESS will be deploy on android devices, this application will be operation for the android devices.

5.4. Tools and Techniques

The tools basically we are using are

- Android Studio
- JSON
- JAVA
- Firebase
- Visual studio

5.5. Best Practices / Coding Standards

Coding Conventions

- Use the default Code Editor Settings (smart indenting, four-character indents, tabs saved as spaces).

- Write only one statement per line.
- Write only one declaration per line.

Commenting Conventions

- Place the comment on a separate line, not at the end of a line of code.
- Begin comment text with an uppercase letter.
- End comment text with a period.
- Insert one space between the comment delimiter (//) and the comment text.

Use block commenting for multiple lines at once `/*commenting the block*/`

5.6. Version Control

Git version control technique will be used for version control of our project.

Chapter 6

Testing and Evaluation

Chapter 6: Testing and Evaluation

This chapter includes some test cases for the software to check if the software is working properly in various situations. In this whole chapter we check each aspect of software according to its performance and appearance.

6.1. Use Case Testing

In Use case testing from sending notifications, viewing details and app is working fine.

Admin:

SR #	Name	Working
1	Sending Alert to User	Yes
2	Register Brands	Yes
3	Delete Brands	Yes
4	Add Brands	Yes
5	Modify System	Yes

Brand:

SR #	Name	Working
1	Register	Yes
2	Login	Yes
3	Upload Advertisement	Yes
4	Delete Advertisement	Yes
5	Add Products	Yes
6	Delete Products	Yes
7	Modify Details	Yes
8	View Sale Products	Yes
9	Logout	Yes

User:

SR #	Name	Working
1	Getting Notifications	Yes
2	View Brand List	Yes
3	View Sale Products	Yes
4	View product details	Yes
5	Check Availability	Yes

6.2. Equivalence partitioning

In equivalence partitioning exist on three things that our software can do.

- First we Register Brand in our application.
- Brand further Add, Delete, or Modify details about sale products and advertise their brand.
- And third thing is to send alert about the sale to the user.

6.3. Boundary value analysis

User allowed at once to sign up on 1 mail address, repetition not allowed.

Input images allowed at once is 1 acceptable. 2 or above images not acceptable.



Include password patterns in signup.

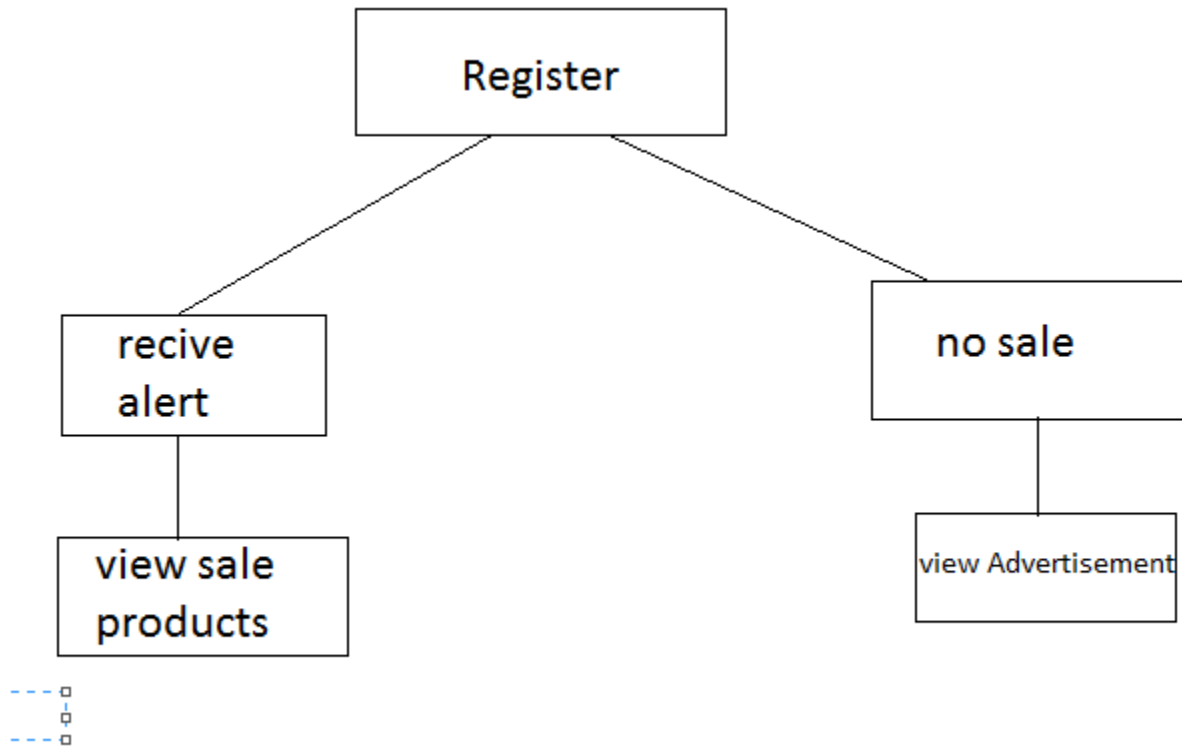
Null password not allowed.

Null user not allowed.

Null phone number not allowed.

Name letter less than 3 not allowed.

6.4. Data flow testing



6.5. Unit testing

The testing of unit testing is good the software has no issue with running and doing task in particular way but in unit testing performing the task before its first is completed create problem of slowing down and hanging.

Test Case No	Identifier	Test Item	Input Specification	Output specification	Pass /Fail	Description
1		Log In	Email,password rd	Error message/ welcome Message	Pass	To verify Log in and brand authentication
2		Sign Up	Id,password, Email, Contact,addr ess	Validation Error/ Succesfull Sign Up	Pass	To Register A new Brand
3		Upload product details	Images	Validation Error/ Successful Upload	Pass	To load the image product
4		Send alerts	Notifications	Show sale products	Pass	Show all sale products
5		Upload advertisement	Image/video	Show	Pass	Getting Info about sale or new arrival

6.6. Integration testing

Test case id	Test case objective	Test_case description	Expected Result
1	Check the signup module	Enter brand info	Save data and send mail on user mail id
2	Check the login module	End valid brand or password	Login brand and generate list of rights
3	Check upload image	Click button and give path	Upload image in list
4	Check alerts	Clink_on preprocessing	User will be notified about sale
5	Check for advertisement	Clink on button	Extract the all new arrival or sale adv.

6.7. Performance testing

4. **Speed requirements:** Response time is less than 20 seconds for transition. The inventory database also updated in real time.

Task Name	Minimum Time	Maximum Time
Load Images	0.1Sec	05 Sec
Delete images	1 Sec	10 Sec
Modify details	1 Sec	10 Sec
Send alerts	1 Sec	10 Sec

6.1. Stress Testing

5. In this testing we test the strength of software by pushing to its limits so that we can come to know about how much this software goes far. In our software we can register limited brands and they are allowed to upload limitless products. So it's a simple and useful application that requires no stress.

Chapter 7

Summary, Conclusion and Future Enhancements

Chapter 7: Summary, Conclusion & Future Enhancements

7.1. Project Summary

It's an android application named: "SALE AWARENESS". The purpose of this application is to provide ease of shopping for people. When sale season of various brand arrive, sale notifications will be sent to those who will install this application. They don't need to visit different brand websites. They just have to install this application. It will provide info about all brands sale. It would be helpful for all people belongs to different cities or any backward area. It would be helpful for brands as well, so that they can easily market their products. Mainly it would be a great convenience for brand lovers. In other words, people want to know what's in it for them when they make a purchase. They want to know what is so great about the individual features of your product and how they can benefit them.

7.2. Achievements and Improvements

Our goal is to add up more and more brands in our application, we are adding more than 20 brands for now. We had improved privacy terms and arranged the products also by price range. We are providing advertisement and also alert of new arrival advertisement. We have decided

to give more ease to our users so that everyone will be aware of sale and sale products around them.

7.3. Critical Review

In this study, we have studied different techniques for designing and developing. We have studied managing techniques and firebase app developing and many more techniques of android.

7.4. Lessons Learnt

We absorb very much from this project. This project sharpens our skills in Mobile application development, designing tools and many management concepts as well as how to deal with a problem and how to stick for finding the solution of any problem. As well as technical skills this project also enhance our personal development skills such as team working, dedication. We learnt various types of techniques in app developing. This project is a stepping stone for us in the beginning we don't even know that if we accomplished it or not but due to our hardworking and research we do it and it's an achievement for us that motivates us to do better and more.

7.5. Future Enhancements/Recommendations

To add more and more brands as soon as possible. For future we have decided to add up local markets too. With the passage of time we have decided to add up GPS location locater in this app so that it will notify you when you will be around the brand and will also provide the option of shop that items online through the same app.

Appendices

Appendix A: Information / Promotional Material

A.1. Broach



A.2. Flyer



SALE AWARENESS



Proposed Solution:
We are going to combine all brands at one platform where users will get alert about Sale Season.

The purpose of this application is to provide ease of shopping for people. When sale season of various brand arrive, sale notifications will be sent to those who will install this application. They don't need to visit different brand websites.

Our purpose is to provide ease to the people in shopping. We are introducing an application named "Sale Awareness", where users will view all brands that are on sale and users will be also updated about sale through notifications.

HEADLINE

- 1
- 2
- 3

VISIT:

www.saleawareness.com
www.facebook.com/saleawareness
www.twitter.com/saleawareness



Standee



A.3. Banner

