

SUPERIOR UNIVERSITY LAHORE



Faculty of Computer Science & IT

Final Year Project PROJECT REPORT

[Public Review System]

Project ID: [SE-012]

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Project Report

[Public Review System]

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APPROVAL

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HEAD OF THE DEPARTMENT

Comments: _____

Date: _____ Signature: _____

Dedication

This work is dedicated to my family, friends and everyone who showered me with their love and support. I am especially thankful to those who presented challenges to my work and I pray for them because without their resistance I would never have been able to achieve what I did

Acknowledgements

I am really very thankful to my supervisor Maam Faiqa Maqsood for her invaluable guidance, continuous encouragement and constant support in making this project possible. I really appreciate her guidance from the initial to the final level that enabled me to develop an understanding of this project thoroughly. Without her advice and assistance it would be a lot tougher to completion. I also sincerely thanks for the time spent proofreading and correcting my mistakes.

My sincere thanks go to all lecturers and members of the staff of the Department of Computer Science and Technology, SUL, who helped me in many ways and made my education journey at SUL pleasant and unforgettable. Many thanks go to SE member group for their excellent co-operation, inspirations and supports during this study. This four year experience with all you guys will be remembered as important memory for me to face the new chapter of life as a software engineer.

Lastly I would also like to thank my family, friends and every person which contributes to my final year project directly or indirectly. They continue to inspire me towards greater accomplishments.

Executive Summary

There is myth in market no one can be trusted with the review of product they are using because they don't want to degrade the product. They are using but this cause unhappy buying of product and later cause problems highlight. This way no one tells others about the cons of product they are using this chains goes on and goes and this is the benefit used by competitors in holding the market.

This website will lead to easiness of trending products and best till now and critic will mark them as per rating and critics are public celebrities. They will get paid on views of website or free based that's all depend on public loves most in Pakistan famous cities. Top products will be at top list and this will disturb the monopoly of business because there are a lot of paid reviews in Pakistani market.

The website will also help us in purchasing the products. Nowadays people are learning towards online shopping because it save time. For online exploration, trust is the main issue and our challenge is to develop such a website which recommends the customer the best product which has best review which is given by users.

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Chapter 1

Introduction

Chapter 1: Introduction

In first chapter you will be introduced to the basic of our idea. This chapter will also provide the background of our product. It will include the matrix, work breakdown structure and also Gantt chart. Simply In this chapter we have a brief introduction of our project. This chapter will also provide the project plan.

1.1. Background

Nowadays if a customer needs to buy some product it is hard for him to go out and get the product by himself because it takes time. Customers are confused and have hard time in the selection of the product, because they are so confused about product but our website help to find the best product.

Review gather site is platform which interacts with user and gather reviews about product. Review can be anything it will be based on what people love in their short time to give review about product. Known Reviews as follows:

- Description based
- Stars based

Then review will be based on the product based. Then there is critic who will post about product what it was and what was expected.

Review and critic based website which will be platform for online reviews of products used by consumers and manufacturers can see there reviews on products just like a television (media-adds) which will brings new free of cost consumer reviews and critic reviews able to be watch together . (Wikipedia, 2015)

1.2. Motivations and Challenges

The Pakistani market lacks the proper platform for the Product Reviews. And the most online reviews are not properly addressed or lack of proper information. The reviews are usually fake or only based on product company which has trust issues.

1.3. Goals and Objectives

To solve the problem we are going to create a platform for all those who want to check the review of product and also who want to give the review of product.

We can earn money through this website by posting ad. In future we can also use the api of other companies to get more reviews on our platform.

1.4. Literature Review/Existing Solutions

Yelp is the existing system in the international market this website is same system like Yelp.

Yelp is an American multinational corporation headquartered in San Francisco, California. It develops, hosts and markets Yelp.com and the Yelp mobile app, which publish crowd-sourced reviews about local businesses, as well as the online reservation service Yelp Reservations.

(yelp, 2018)

1.5. Gap Analysis

In future our website is going to such platform where you can find the review of any product which you want to buy and we can also use the API of other company those who is agree to share our product review. But in order to move next state then we need to fill these gap.

- Market our product
- User friendly.
- Price trending.

1.6. Proposed Solution

- To introduce review market where the true and trusted reviews are being produced and companies don't have to gather from people by going door to door or social media page who is just based on giving stars and different opinions may confuse the person in some extent.
- To make clear the product what it is capable of and what it is performing in main cities of Pakistan like Karachi, Lahore and Islamabad etc.
- If someone is new to area he will not perform the mistake of acting on relevant choice he will watch the review by critics and people in one proper platform.
- Industries/organizations will struggle hard to get the product better instead of investing others and make them equal level business in this way innovation stops but review will bring the innovation.

1.7. Project Plan

This product plan will be managed through following WBS and Gantt chart:

1.7.1. Work Breakdown Structure

1. Project Management

1.1. Work Breakdown Structure (WBS)

1.2. Roles & Responsibility Matrix

1.3. Change Control System

2. Reports / Documentation

2.1. Final Documentation Introduction

2.2. Literature / Market Survey

2.3. Requirements Analysis

2.4. System Design

2.5. Implementation

- 2.6. Testing & Performance Evaluation
- 2.7. Conclusion & Outlook
- 2.8. End User Documentation
- 2.9. Application Administration Documentation
- 2.10. System Administrator Documentation

3. System

3.1. Development Environment

- 3.1.1. IDE
- 3.1.2. Version Control
- 3.1.3. Server
- 3.1.4. Database

3.2. Presentation Layer

- 3.2.1. User Interaction
- 3.2.2. Web Application
- 3.2.3. System loading

3.3. Business Logic Layer

- 3.3.1. Queries
- 3.3.2. Analyzing Queries
- 3.3.3. Receiving of data

3.4. Data Management Layer

- 3.4.1. Data management studio
- 3.4.2. Data handling system requirement
- 3.4.3. Data handling system design
- 3.4.4. Data handling system implementation
- 3.4.5. Data system testing

3.5. Physical Layer

- 3.5.1. Data Base Server
- 3.5.2. Application server

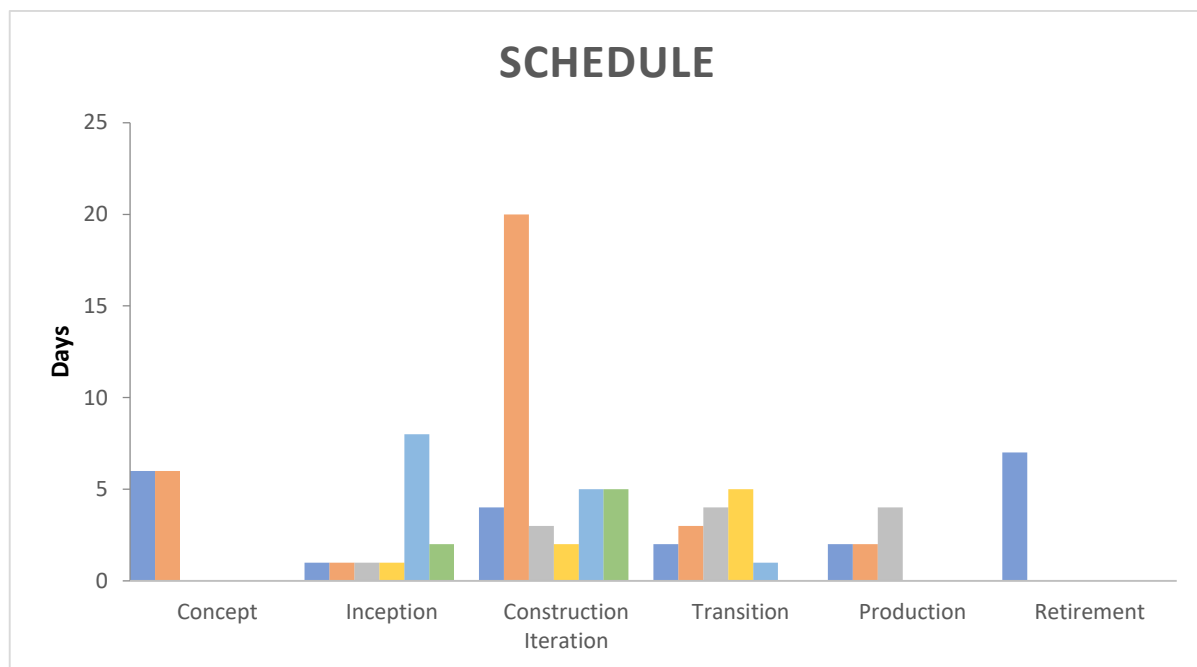
1.7.2. Roles & Responsibility Matrix

The purpose of roles & responsibility matrix is to identify who will do what.

WBS #	WBS Deliverable	Activity #	Activity to Complete the Deliverable	Duration (# of Days)	Responsible Team Member(s) & Role(s)
01	Project proposal	01	Requirement elicitation	2 Days	Taha Basit Ahsan Saleem
01	Concept(Select the project)	01	1. Develop initial version 2. Consider project feasibility	14 Days	Taha Basit
02	Inception(Warm Up)	02	1. Active stakeholder participation 2. Obtain funding and support 3. Start building the team 4. Initial building the team 5. Initial requirements envisioning 6. Setup environment	14 Days	Ahsan Saleem
03	Construction Iteration	03	1. System Designing 2. Collaborative development 3. Model storming 4. Test Driven Designing(TDD) 5. Confirmatory Testing 6. Evolve Documentation	60 Days	Taha Basit + Ahsan Saleem
04	Transition(Release, Finished Web Application)	04	1. Active stakeholder participation 2. Final system testing 3. Final acceptance testing	14 Days	Taha Basit

			4. Finalize documentation 5. Deploy system into production		
05	Production	05	1. Operate the system 2. Support the system 3. Identify defects and enhancements	7 Days	Ahsan Saleem
06	Retirement	06	1. Remove the final version of the system data conversion	7 Days	Taha Basit

1.7.3. Gantt Chart



1.8 Report Outline

The above chapter of the report define the phases of requirement gathering, documentation, development environment, implementation and expected deliverables as well as gap analysis, proposed system, business logic layer, physical layer and clearly define the role and responsibilities of each person on each phases for the successful development of project.

Chapter 2

Software Requirement Specifications

Chapter 2: Software Requirement Specifications

2.1. Introduction

2.1.1. Purpose

The Pakistani market lacks the proper platform for the Reviews and Critics. And the most online reviews are not properly addressed or lack of proper information. The reviews are usually fake or only based on product company which has trust issues.

To solve the problem we are going to create a platform for all those who want to check the review of product and also who want to give the review of product. We can earn money through this website by posting ad. In future we can also use the api of other companies to get more reviews on our platform.

Purpose is simple to let market balance out reviews so that everyone can enjoy genuine their favorite product and can review about it so that it will be easy for them to make decisions over the product and reduce the new products gap and prices monopoly.

2.1.2. Document Conventions

The format of this SRS is simple. Bold face and indentation is used on general topics and or specific points of interest. The remainder of the document will be written using the standard font, paragraph text 12 pt, Calibri, 1.5 Line Spacing, Justified as fyp team gave us instruction. (IEEE, n.d.)

2.1.3. Intended Audience and Reading Suggestions

Audience	Use
Developers	Document will used for clearance in design documentation and implementation.
Client	They can confirm if requirements met their requirements.

Testers	Requirements will be clear and they can test easily each and everything in their field.
Documentation Writer	Writer if during development forget about what the main purpose was. This document will help.

2.1.4. Product Scope

Product will be user friendly by having simple GUI as much as possible.

The following are the key features of product:

- Admin panel
 - Approve products
 - Login required
 - Monitor products
 - Profile timeline built
 - Products crude operations
 - Views reviews on product
 - Cant edit reviews
- User review panel
 - Login required
 - View reviews
 - Selection of categories
 - Selection of brands
 - Crude on self-review(only on user given reviews)
 - Write reviews on products
 - View trending product

2.1.5. References

1. IEEE standard document for software requirement specification.
2. Diagrams from draw.io .
3. <https://www.yelp.com/>
4. Diagrams are from software Microsoft visio.io

2.2. Overall Description

2.2.1. Product Perspective

Product is review-based system, which was design to have online reviews, which can compare with other reviews in perspective of owners or just simple product having features and compared by other product features.

This product is self-contained product with which selection of best choice will be easy and will release surprise products after wastage of money or monopoly of dealers.

Simple goal is:

- Develop a website where person can see clearly reviews about product.
- A platform for industry to recognize product more easily and save a lot of time.

2.2.2. Product Functions

Product has many functions. In addition, will be growing, as time will be devoted to this project.

Product will have following functions.

- Admin panel
 - Approve products
 - Login required
 - Monitor products
 - Profile timeline built
 - Products crude operations
 - Views reviews on product
 - Cant edit reviews
- User review panel
 - Login required
 - View reviews
 - Selection of categories
 - Selection of brands
 - Crude on self-review(only on user given reviews)
 - Write reviews on products
 - View trending product

Api system so that companies can put it in their web system so that we can fetch reviews.About their products from them and show it in our platform.

2.2.3. User Classes and Characteristics

Class	Characteristics
Admin	Administrator can approve product and have access to all operations just review crude operations are not allowed.
User(Reviewer)	It is a class of visitors. Who can give reviews and watch reviews.
Product lists	Class of product lists that can perform add, update and remove crude operations.
Category	Class of category that can store, update, remove and edit through CRUDE operations.
Trending products	Class of trending products shows according to most reviews.
Sign up	Sign up class. User will create class and will be able to access reviews .
Login	Sign up class. User or Company can login to their accounts.
City	Class of different cities that can be add, update and remove through CRUD operations.
Review	It is a class review that can submit by User only and CRUD operation can be applied on product reviews only.

2.2.4. Operating Environment

1. Online Review system will operate in browsers like Mozilla, Firefox, and Opera and for their different version also.
2. The processor should be core 2 duo or above.
3. The processor's speed should be 2.8 GHz or greater.
4. Ram should be or greater than 512 MB.
5. Requirements are for modern browsers so that website can run error free.

2.2.5. Design and Implementation Constraints

1. Developers have to complete this system in minimum time say 6 months.
2. The languages which will be used in this project is Bootstrap3, Html, CSS3.

3. The Case tool to implement this product is Sql Server, Adobe Photoshop, Illustrator, Visual studio.
4. For testing New Relic and Load Runner tools will be used.
5. Default language for this system is English (Easy and understandable for everyone).
6. This website follow all copyright and cyber laws of PTA.

2.2.6. User Documentation

We will guide through videos.

- We will make dialogue boxes to make it easy as possible for user if he/she does not have watched video.
- We will give safety disclaimers for less products fake reviews rate.

Will provide social media platform videos so that person can learn easily

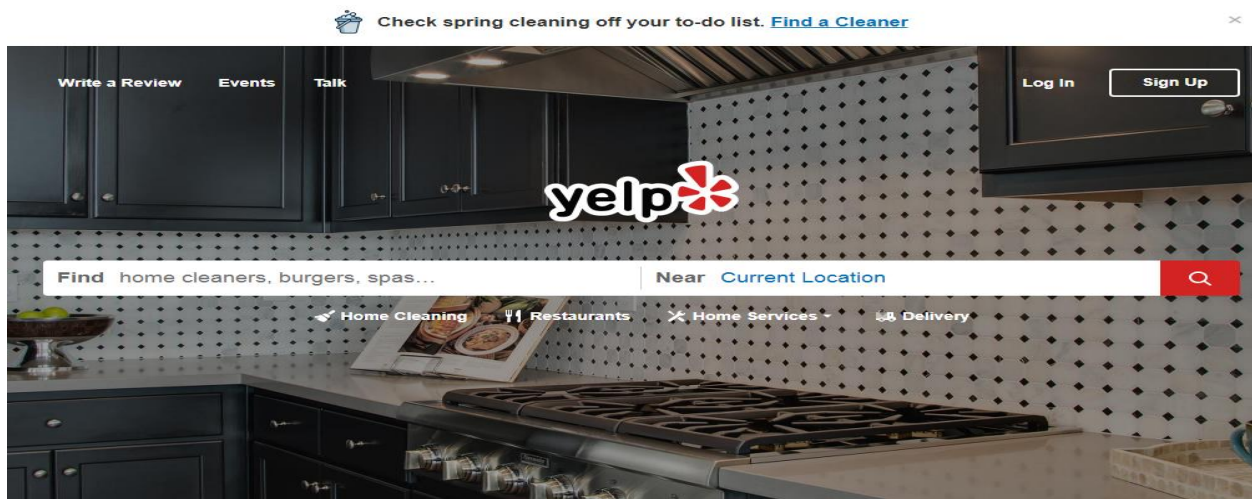
2.2.7. Assumptions and Dependencies

- Depend on the internet may be load database fails but it will be handled other than user non-friendly behavior on website there will be no issue in future.

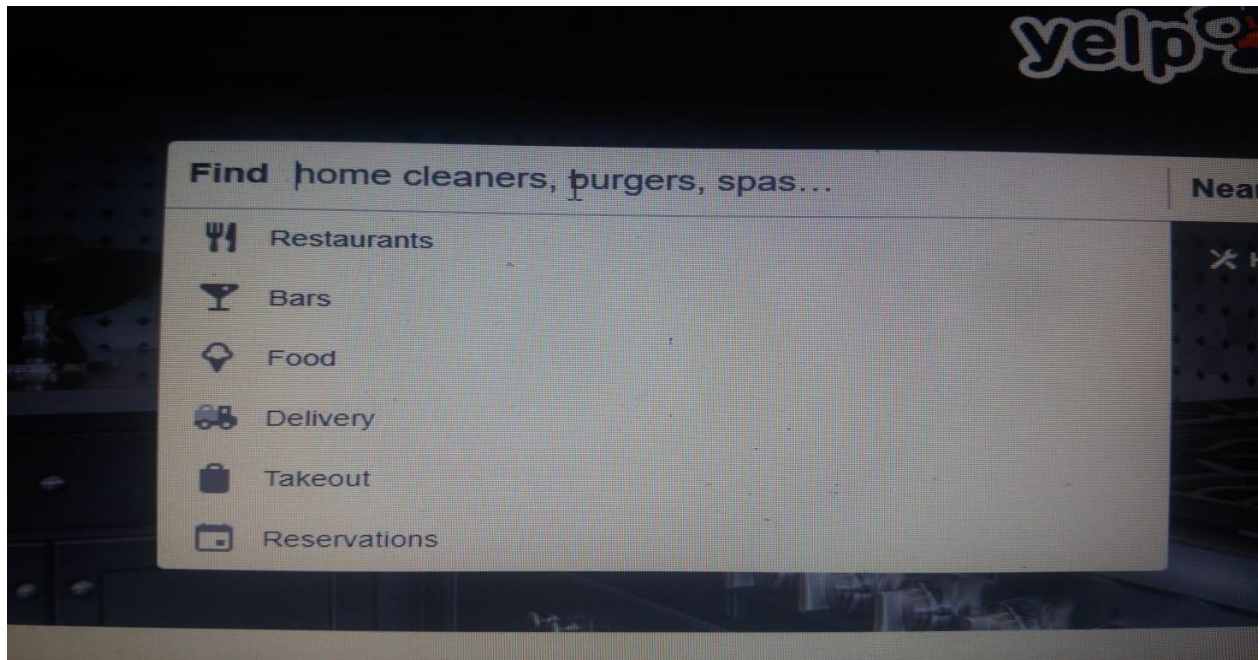
2.3. External Interface Requirements

2.3.1. User Interfaces

Without login user interface is sample. (yelp, 2018)



Product category



On sign up (Sample)



Sign Up for Yelp

Connect with great local businesses

By signing up, you agree to Yelp's [Terms of Service](#) and [Privacy Policy](#).

 Sign Up with Facebook

 Sign Up with Google

Don't worry, we never post without your permission.

OR

First Name Last Name

Email

Password

ZIP Code

Birthday Optional

Month Day Year



Post review


Select your rating

Your review helps others learn about great local businesses.

Please don't review this business if you received a freebie for writing this review, or if you're connected in any way to the owner or employees.

Post Review
[Read our review guidelines](#)

2.3.2. Hardware Interfaces

Hardware requirement at user end is very simple and website will launch on simple web based browser on any platform like Linux, windows, Unix or vice versa.

Recommended hardware:

Browser's	Processor	Ram	Hard Space
Chrome, Opera & Firefox	2.8 GHz	1GB	100Mb

2.3.3. Software Interfaces

Operating system: Simple browsers, which are still online like Firefox, Opera and Chrome, can run this website.

For browsers minimum 512 mb ram and core 2 duo processor is needed.

Tools:

- Visual Studio
- SQL Server
- Adobe Photoshop
- Illustrator

Languages:

SQL, Php laravel, Html5, CSS3

Frameworks:

Bootstrap3

2.3.4. Communications Interfaces

- Client (customer) on Internet will be using HTTP/HTTPS protocol.
- Client (user) on Internet will be using HTTP/HTTPS protocol.

2.4. System Features

- Admin panel
 - Declare company
 - Crude operations on company
- Company panel
 - Login required
 - Monitor products
 - Profile timeline built
 - Products crude operations
 - Views reviews on product
 - Cant edit reviews
- User review panel
 - Login required
 - View reviews
 - Compare products(or their reviews)
 - Crude on self-review(only on user given reviews)
 - Write reviews on products
 - View trending product

2.4.1. Admin Panel

Company panel can add products and can perform crude operations on products.

Identifier	SF-002
Title	Admin
Dependencies	<i>REQ-SF2-1, REQ-SF2-2, REQ-SF2-3, REQ-SF2-4, REQ-SF2-5, REQ-SF2-6, REQ-SF2-7, REQ-SF2-8, REQ-SF2-9</i>
Priority	High

2.4.1.1. Stimulus/Response Sequences

Actor Action	System Response
Admin request for login in panel.	System will check fields and generate the page.
Admin upload picture of product & detail and click to post product.	System will verify add data and then post it.
Admin change the account setting and click on update button.	System will verify user new information then change the account setting.
Admin can check details of product.	System will show detail of products.
Admin can remove products.	System will check and remove product..
Admin can view review on products.	System will allow only view on reviews.
Admin cannot alter other than products data.	System will stop changing in other parts other than products.
Admin can save the products.	System will check if product is not repeating.
Admin can approve the pending requests	System will show products list so that approve will be easy.

2.4.1.2. Functional Requirements

Function requirements for this feature are following:

1. REQ-SF2-1: System does Sign up
2. REQ-SF2-2: System do login.
3. REQ-SF2-3: System does view products.
4. REQ-SF2-4: System does update products.
5. REQ-SF2-5: System does remove products.
6. REQ-SF2-6: System does update company details.
7. REQ-SF2-7: System does show all customers review on product.

8. REQ-SF2-8: System do show status of company.
9. REQ-SF2-9: System cannot edit review of products by people.

2.4.2. User review panel

This feature describes consumer panel. It includes search product via city, price range. In addition, categories, review about renter and product, see renter view and filter product According to condition.

Identifier	SF-003
Title	User review panel
Dependencies	<i>REQ-SF3-1, REQ-SF3-2, REQ-SF3-3, REQ-SF3-4, REQ-SF3-5, REQ-SF3-6.</i>
Priority	High

1.1.1.1. Stimulus/Response Sequences

Actor Action	System Response
User click on Categories button first to select brands.	System will fetch list of Brands after categories of brands of products.
User can select brands and then their products.	System will fetch and show products in that selected brand.
User click on product description to check product detail.	System will generate product detail page.
User can check product review by clicking product reviews on product.	System will show reviews about product .
User click on give review button.	System will generate dialogue box and stars to record review.
User will be able to rate the product.	System will add that rating into review rating .
User will click save review.	System will save that review.

1.1.1.2. Functional Requirements

Function requirements for this feature are following:

REQ-SF3-1: System will fetch list of Brands after categories of brands of products

REQ-SF3-2: System will fetch and show products in that selected brand. REQ_SF3-3: System will add review to product.

REQ-SF3-4: System will show product details.

REQ-SF3-5: System will show product review by clicking product reviews or about product.

REQ-SF3-6: System do submit reviews about product.

REQ-SF3-7: System will add that rating into review rating.

REQ-SF3-8: *System does show safety disclaimers.*

2.5. Other Nonfunctional Requirements

2.5.1. Performance Requirements

1. **Response time:** The home page loaded in 2 seconds.
2. **Availability:** The site will available 90% of the time. 10 percentage well be unknown bug yet to discovered.
3. **Throughput:** Page hits and reviews given to save in time.
4. **Capacity:** Maximum throughput will be given after discovering maximum bugs or delays with acceptable response time and availability.

2.5.2. Safety Requirements

1. If Admin delete product or product categories or their user account the data of that product or reviews will not be retrievable. To handle this problem system gives warning before delete the product add.
2. Safety disclaimers will be for both User and Admin.
3. If product picture is not original or inappropriate than product, description or review will not upload and warning will go to the user.
4. If any user has some problem while using the site, so he can contact via mail to website maintainers.
5. If bad language is use by, company or reviewer in product details or in review, then that product or review will delete and account will get remove from the site. In addition, if same user does number of times may be get blocked by website.

2.5.3. Security Requirements

1. Security will provide to the users so that no fake reviews or product can disturb system.
2. Types of securities like login and log out will get record.
3. System will use verify tactics to overcome duplication or repeating of procedures.

2.5.4. Software Quality Attributes

1. **Usability:** the website itself will guide to beginners by giving hover messages.
2. **Correctness:** System will handle most of user mistakes.
3. **Portability:** Website can be used on any platform having a modern web browser .
4. **Robustness:** System can stand hard time processing internet at slow speeds or consume able light space to run can stand virus mostly common on other sites.
5. **Flexibility:** the idea itself is upgrade able this website will be more useful in near future with increase able system functionalities.

2.5.5. Business Rules

- People if made it popular add sense will be addition to website.
- Trending can make competition tougher to companies

2.6. Other Requirements

- **Usability:** the website itself will guide to beginners by giving hover messages.
- **Correctness:** System will handle most of user mistakes.
- **Portability:** Website can be used on any platform having a modern web browser.
- **Robustness:** System can stand hard time processing internet at slow speeds or consume able light space to run can stand virus mostly common on other sites.
- **Flexibility:** the idea itself is upgrade able this website will be more useful in near future with addition able.

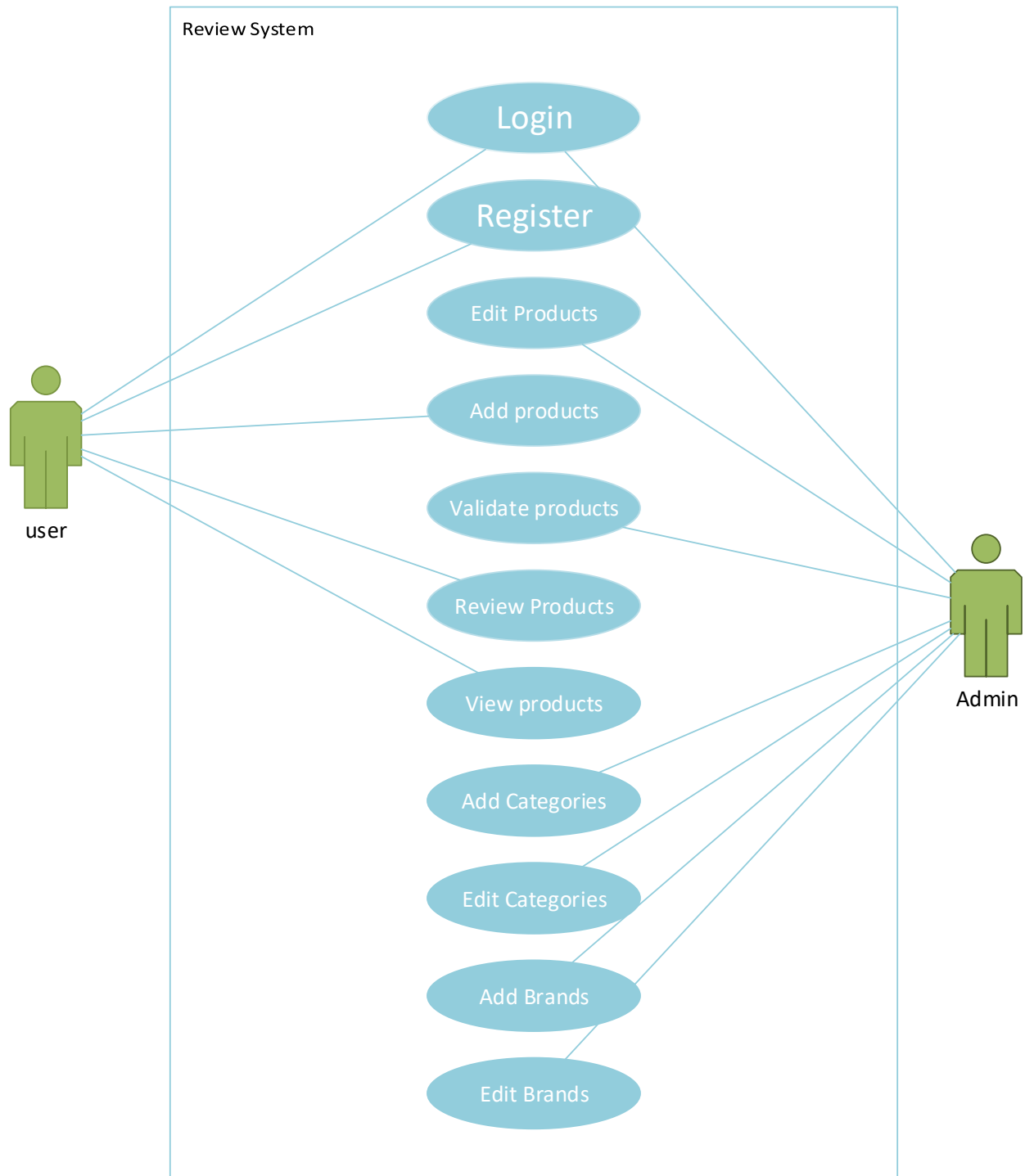
Chapter 3

Use Case Analysis

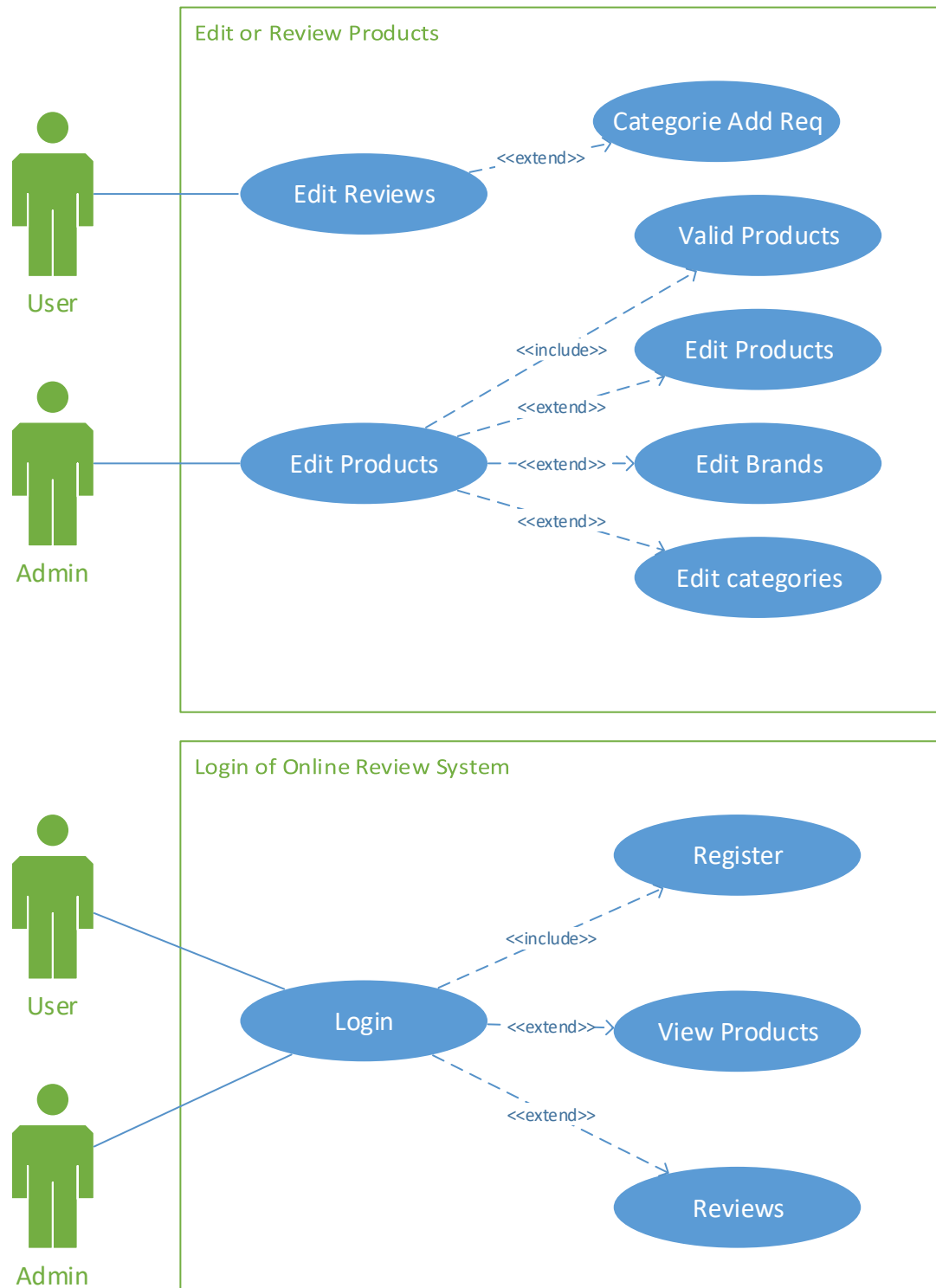
Chapter 3: System Analysis

This chapter describes how system will use cases and how the different actors are interacting with the system. In use case main functionalities of the system are define that are divided in different modules e.g. major use case in which all functionalities of the system are defined is divide into Login, Review module and each actor interacting with module and performing their Module functionalities.

3.1. Use Case Model



3.2. Fully Dressed Use Cases



Chapter 4

System Design

Chapter 4: System Design

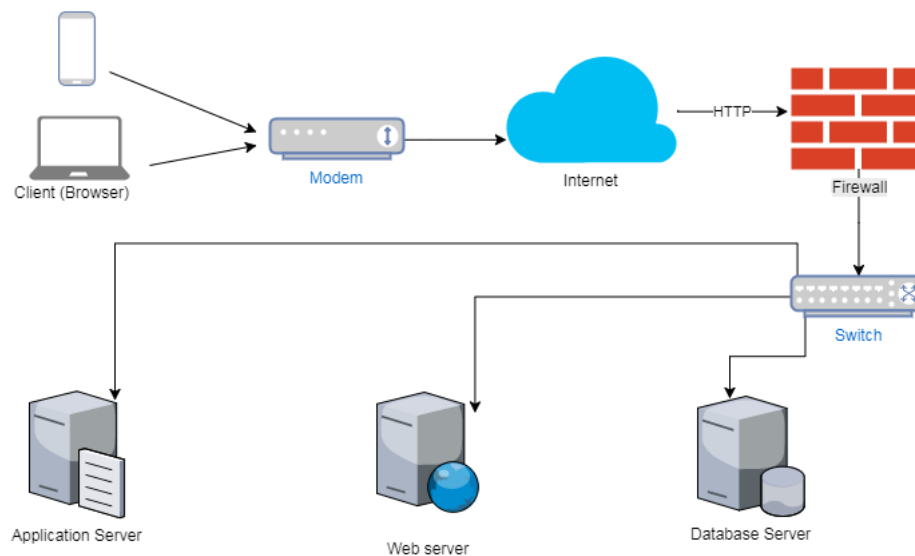
This chapter contains the key-diagrams and models to visually represent the system. The system design has been briefed below:

The application will follow client server architecture. This is an online application and the server will manage the delivery of most of the resources. We will also develop hybrid mobile application. The same servers that we are using for our website will be holding the data for products and reviews. The user will need a connection to the internet for accessing our system and all its features. There will be following

- Using Client-Server Architecture
- Mobile responsive

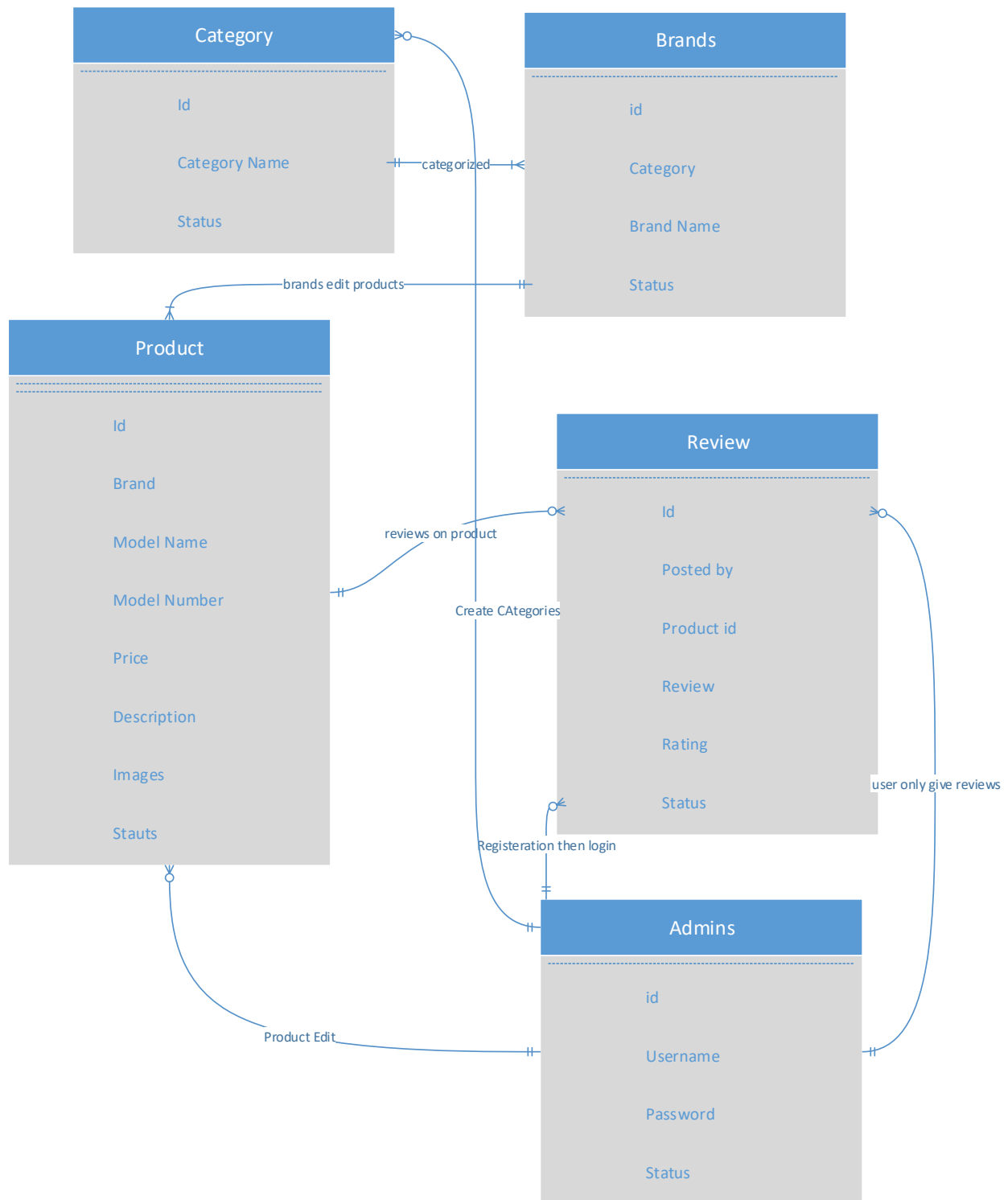
4.1. Architecture Diagram

(Visio, n.d.)



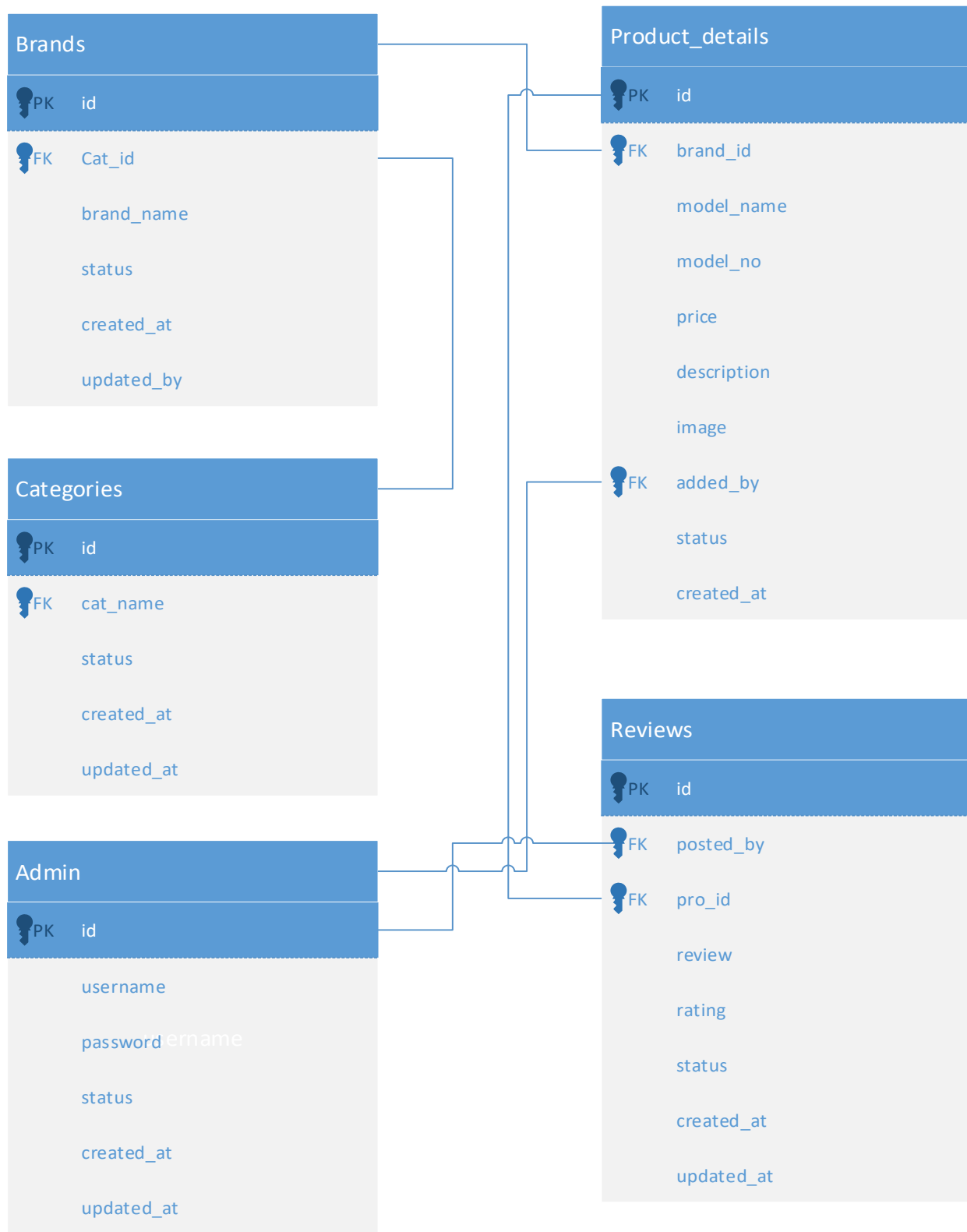
(Visio, n.d.)

4.2. Domain Model



(Draw.io, n.d.)

4.3. Entity Relationship Diagram with data dictionary



Admin			
Attribute	Data Type	Nullable	Description
ID (PK)	int	No	The identity number of this entity
username	Varchar(255)		The name of this entity
password	varchar(255)		The password required to login to admin account
status	varchar(255)		For active reason
created_at	time		Record purpose
updated_at	time		Record purpose

Product_details			
Attribute	Data Type	Nullable	Description
ID (PK)	int	No	The identity number of this entity
brand_id(FK)	int		The id of brand entity
model_name	Varchar		model of product
model_no	Varchar		Model no of product
price	Varchar		The price of the product
description	Varchar		Description of product
image	Varchar		Pictures of the product
added_by(FK)	int		Record purpose
status	int		For active reason
created_at	date		Record purpose

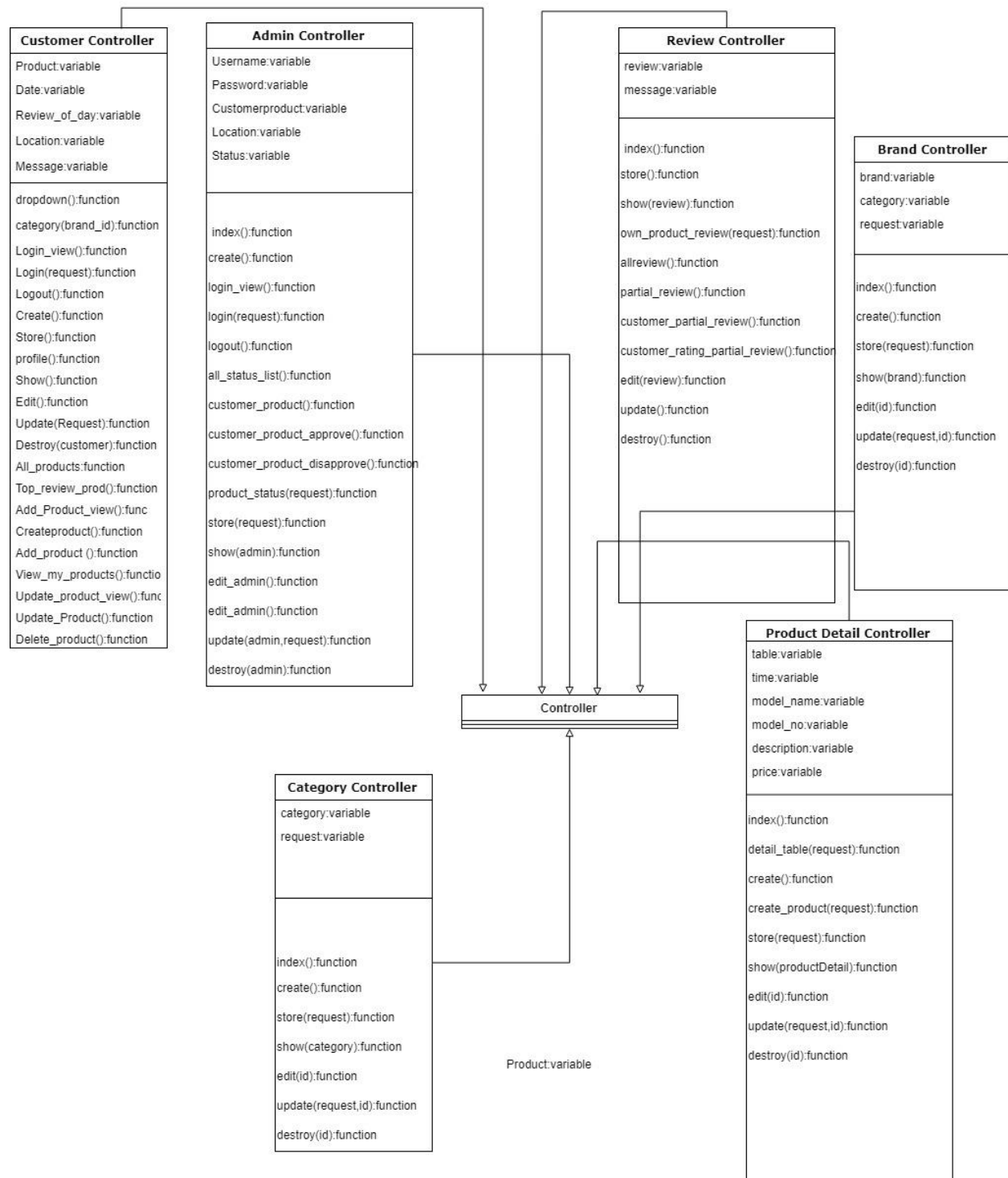
Brands			
Attribute	Data Type	Nullable	Description
ID (PK)	int	No	The identity number of this entity

cat_id(FK)	int		Category foreign key
brand_name	varchar		Brand name
status	int		For active reason
created_at	date		For record purpose
Updated_at	date		For record purpose

Categories			
Attribute	Data Type	Nullable	Description
ID (PK)	int	No	The identity number of this entity
Cat_name	varchar		Category name
Status	int		For active reason
created_at	date		For record purpose
Updated_at	date		For record purpose

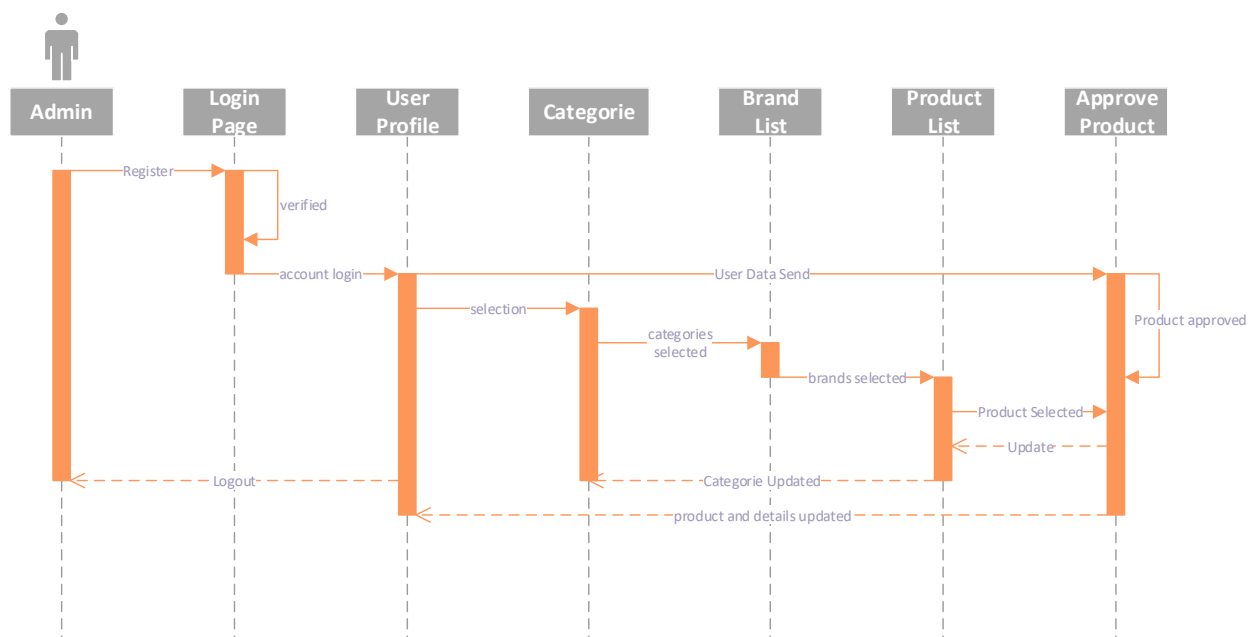
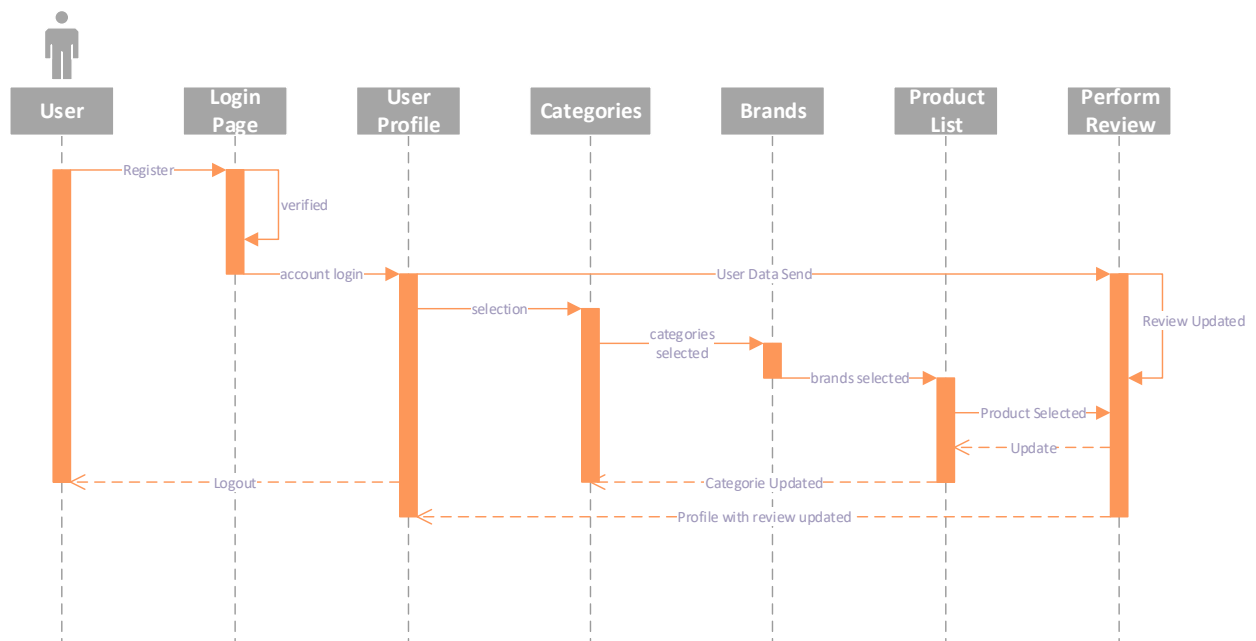
Reviews			
Attribute	Data Type	Nullable	Description
ID (PK)	int	No	The identity number of this entity
posted_by(FK)	int		Review posted by user name
pro_id(FK)	int		Product table foreign key
review	Varchar		Written review
rating	int		The products rating
status	Varchar		For active reason
created_at	date		Record purpose
updated_at	date		Record purpose

4.4. Class Diagram



(Draw.io, n.d.)

4.5. Sequence / Collaboration Diagram



4.6. Operation contracts

CO1

Operation Name: Register

Pre-conditions:

- User has entered the data in registration fields

Post-Conditions:

- User is registered to the user accounts database

CO2

Operation Name: Login

Pre-conditions:

- User has provided the correct credentials
- User is registered
- User is Reviewer

Post-Conditions:

- User is logged into his account
- User can make changes and reviews .

CO3

Operation Name: Verify

Pre-conditions:

- Credentials are entered

Post-Conditions:

- Log in if the credentials are correct and redirect to profile page
- Notify if the credentials are not correct

CO4

Operation Name: Admin User**Pre-conditions:**

- User is logged in as a Admin
- User is checked for Admin

Post-Conditions:

- User can create products.
- User edit or delete products.
- User can approve products.

CO5**Operation Name:** Publish Products**Pre-conditions:**

- Has to fill the required information in create product.
- The information is valid

Post-Conditions:

- The product is published on the website
- Other users can view this product.
- Other reviewers can perform review on it.

CO6**Operation Name:** Promote Featured Products**Pre-conditions:**

- Front promotion created.
- Promotion fee paid.

Post-Conditions:

- The featured products will appear on top of the list.
- The company persons will be charged.

CO7

Operation Name: Product Reviewed**Pre-conditions:**

- Consumer has reviewed the product.
- Product review will be top on the list depends upon user.
- Rating can also make product up or down.

Post-Conditions:

- The product is now famous.
- All Users can see .

CO8**Operation Name:** Logout**Pre-conditions:**

- user is logged in
- Admin is logged in

Post-Conditions:

- The user will be log out of the system
- The Admin will log out of system.

CO9**Operation Name:** Browse Products**Pre-conditions:**

- User is navigated to the browse products page
- User have clicked on view detail.

Post-Conditions:

- Product results will be showed according to the clicked category or Company
- Company have reported fake review.

CO11

Operation Name: Contact User**Pre-conditions:**

- Reviewer has sent contact company request
- Company have sent contact company request

Post-Conditions:

- A request will be shown to the user or company.
- His contact details will be visible to user or company if request accepted

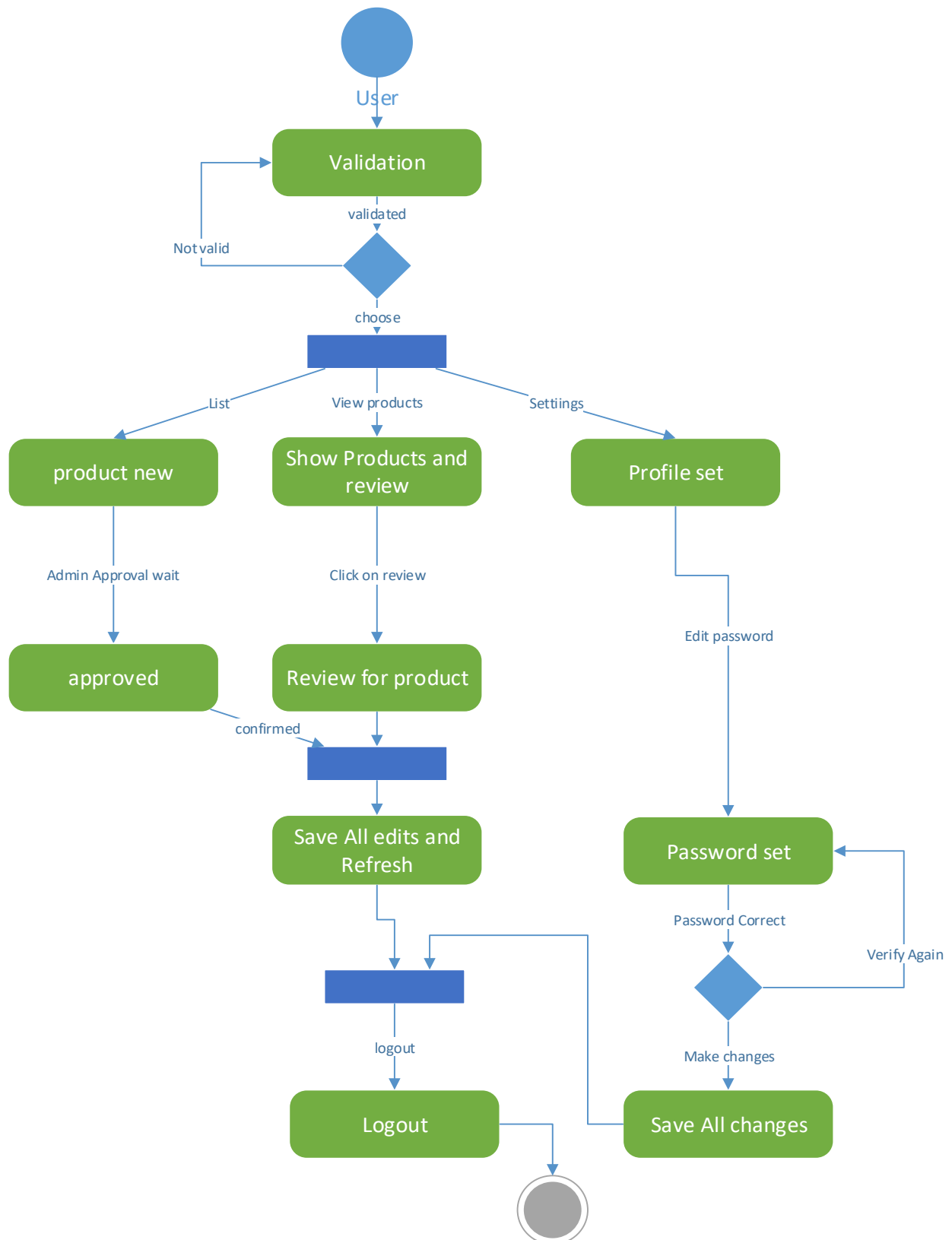
CO12**Operation Name:** View Profile**Pre-conditions:**

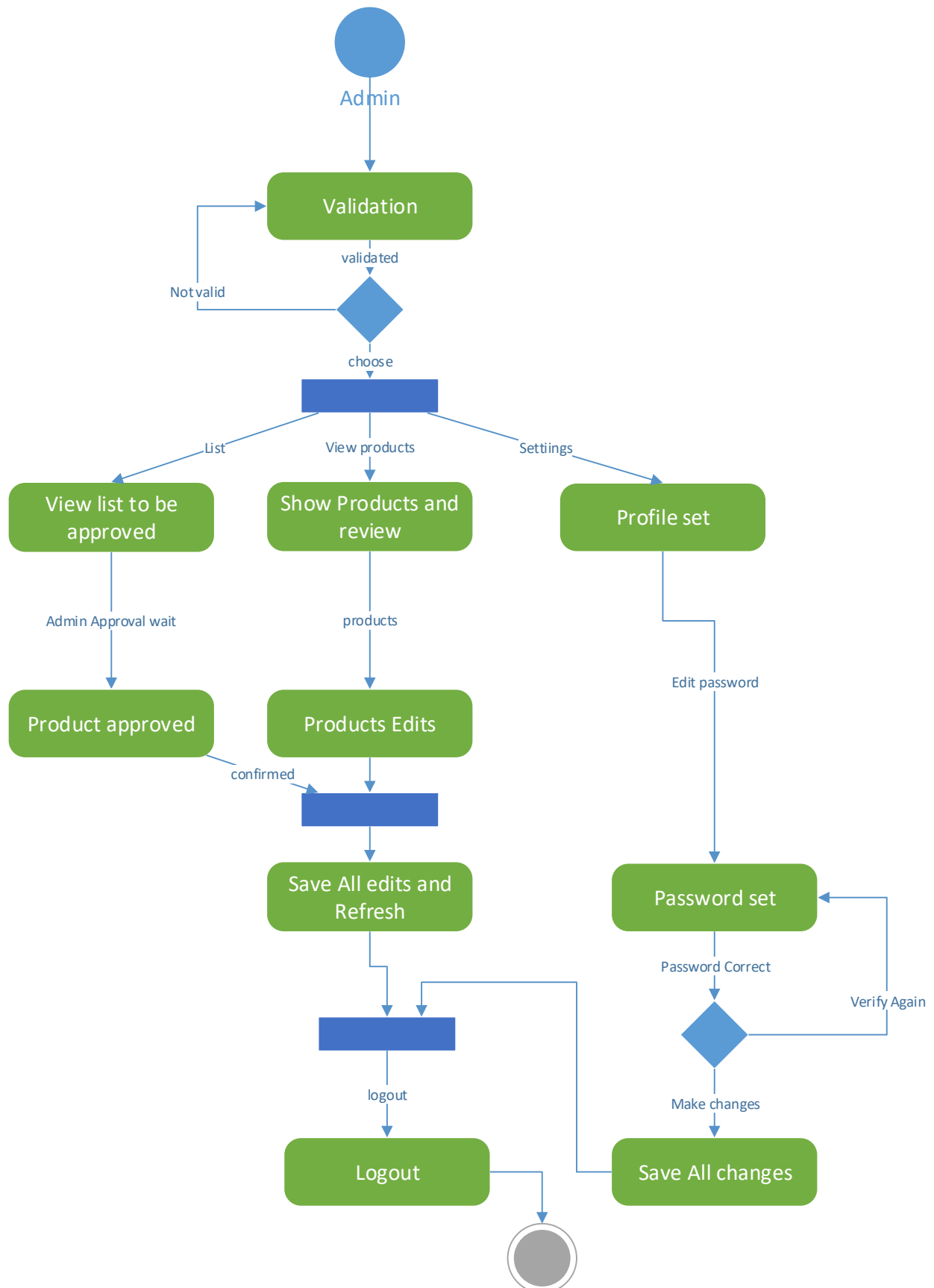
- User is logged in
- User can view reviews

Post-Conditions:

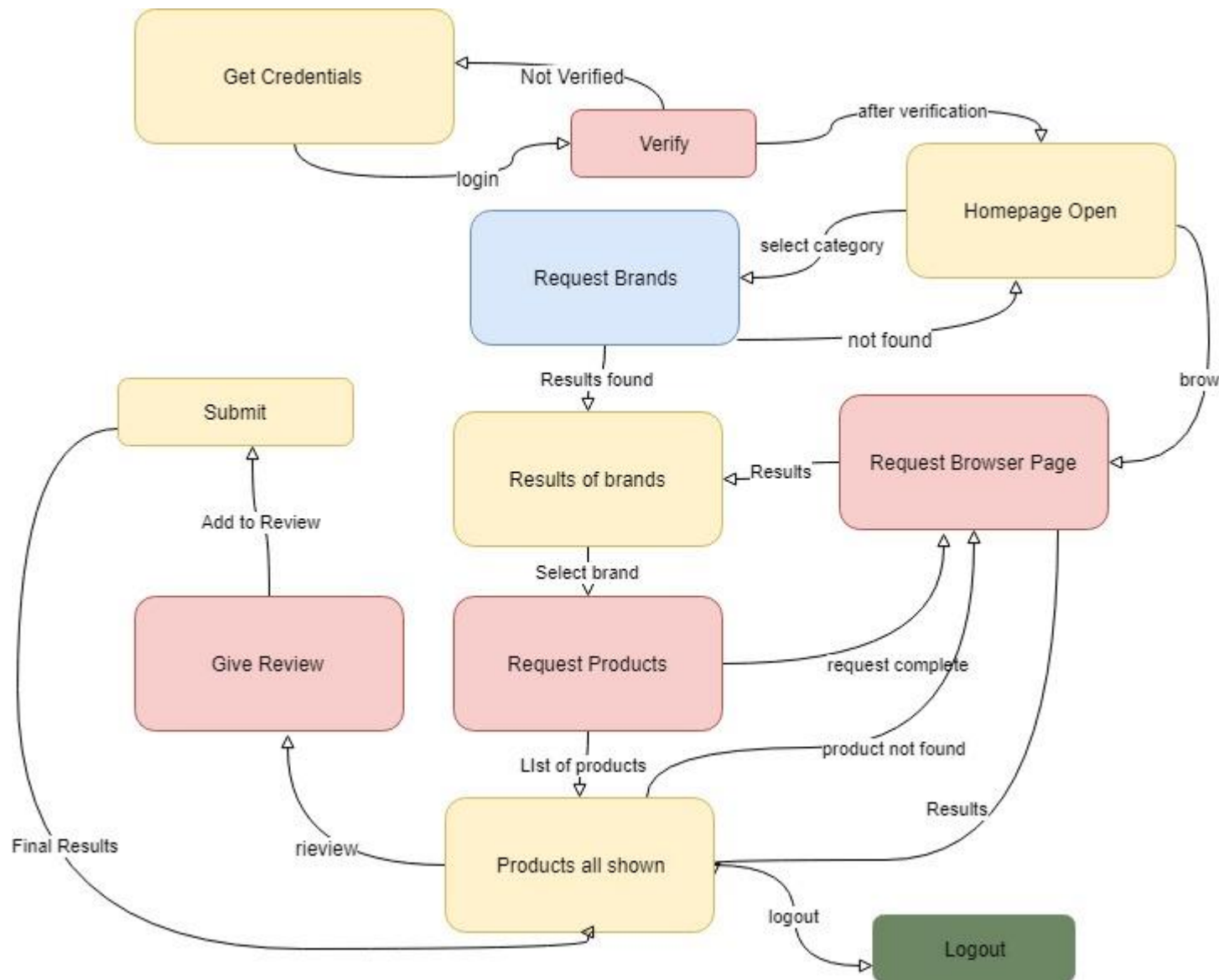
- User will redirect to his profile page.
- User will redirect to homepage page.

4.7. Activity Diagram

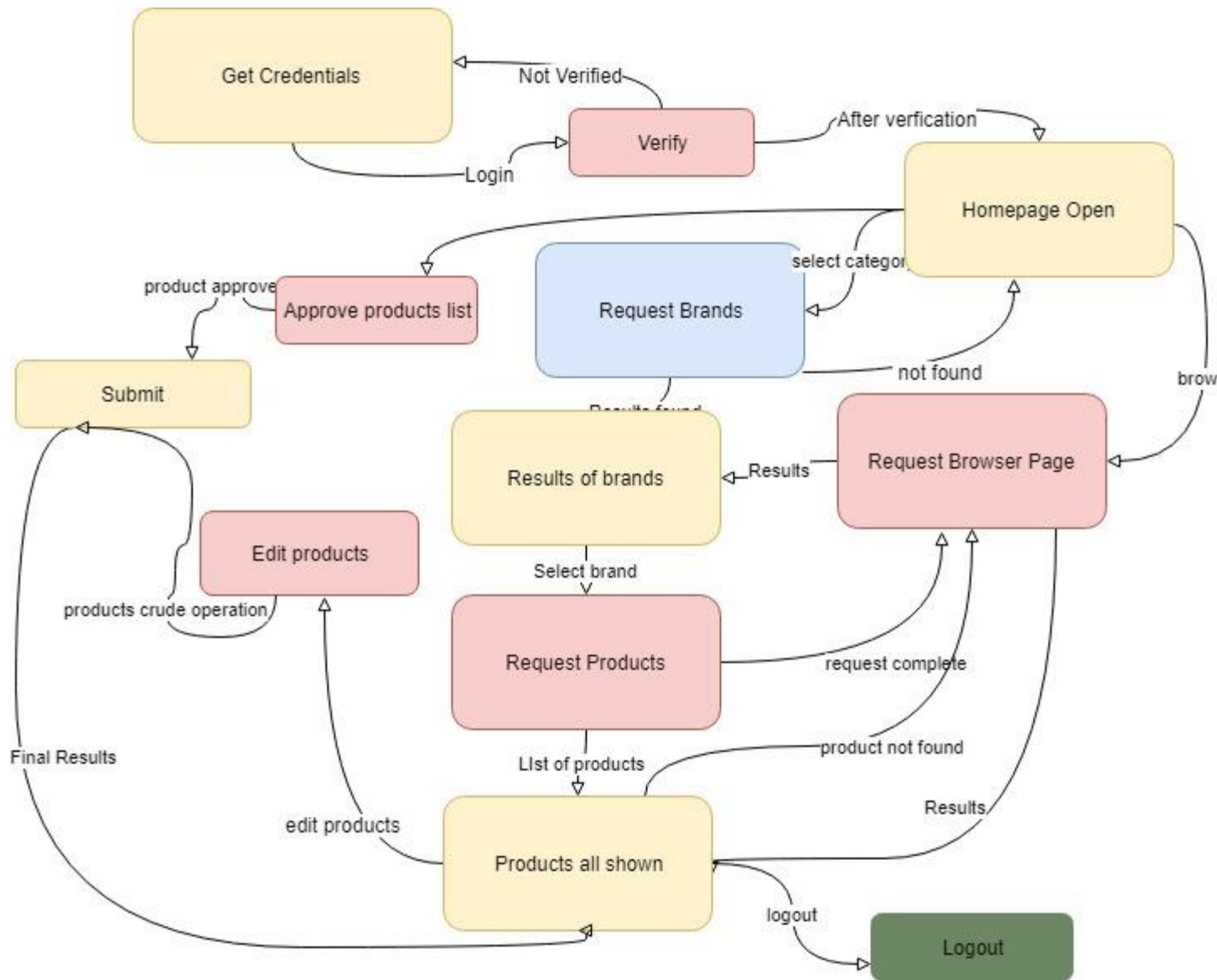




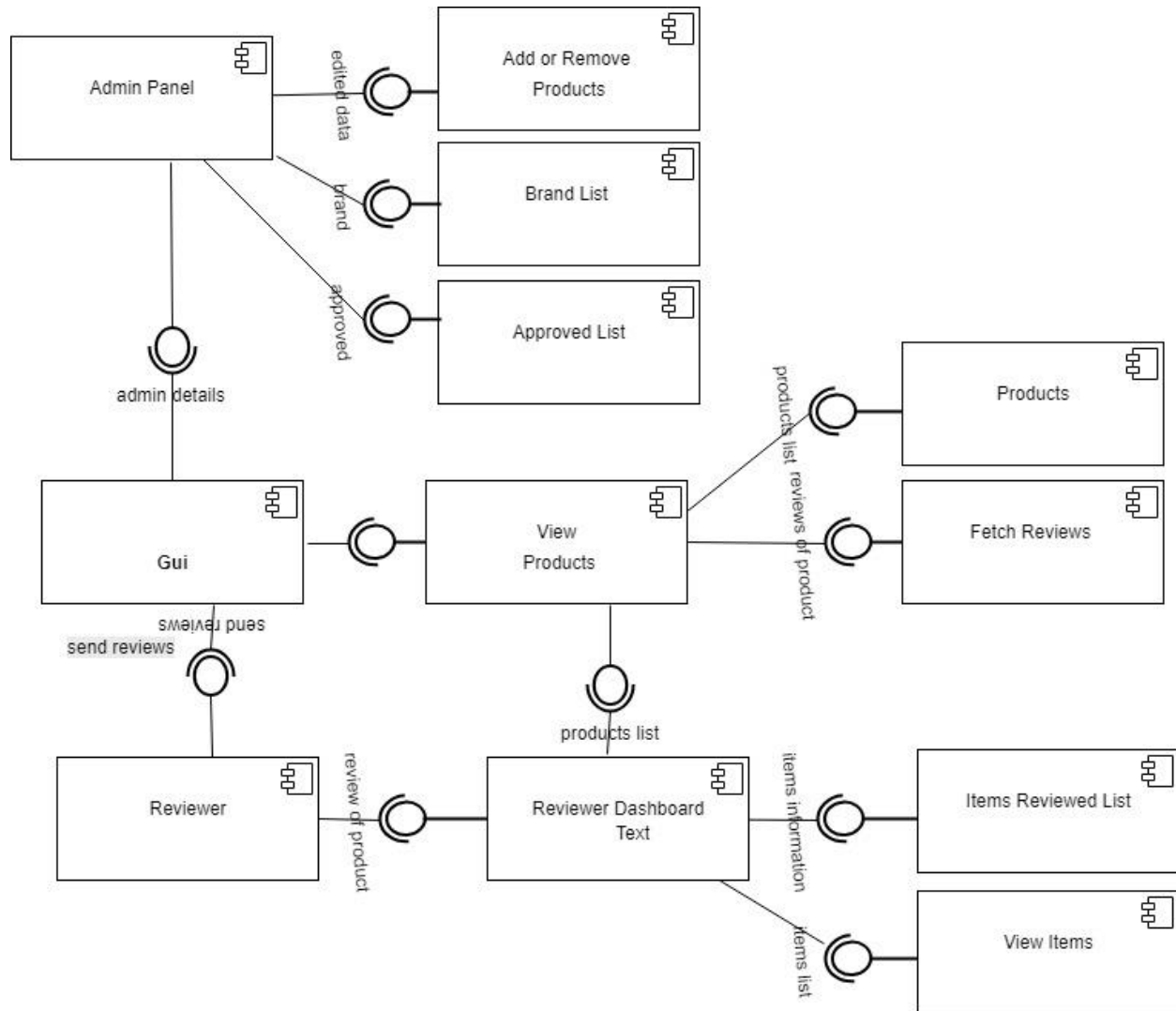
4.8. State Transition Diagram



(Visio, n.d.)

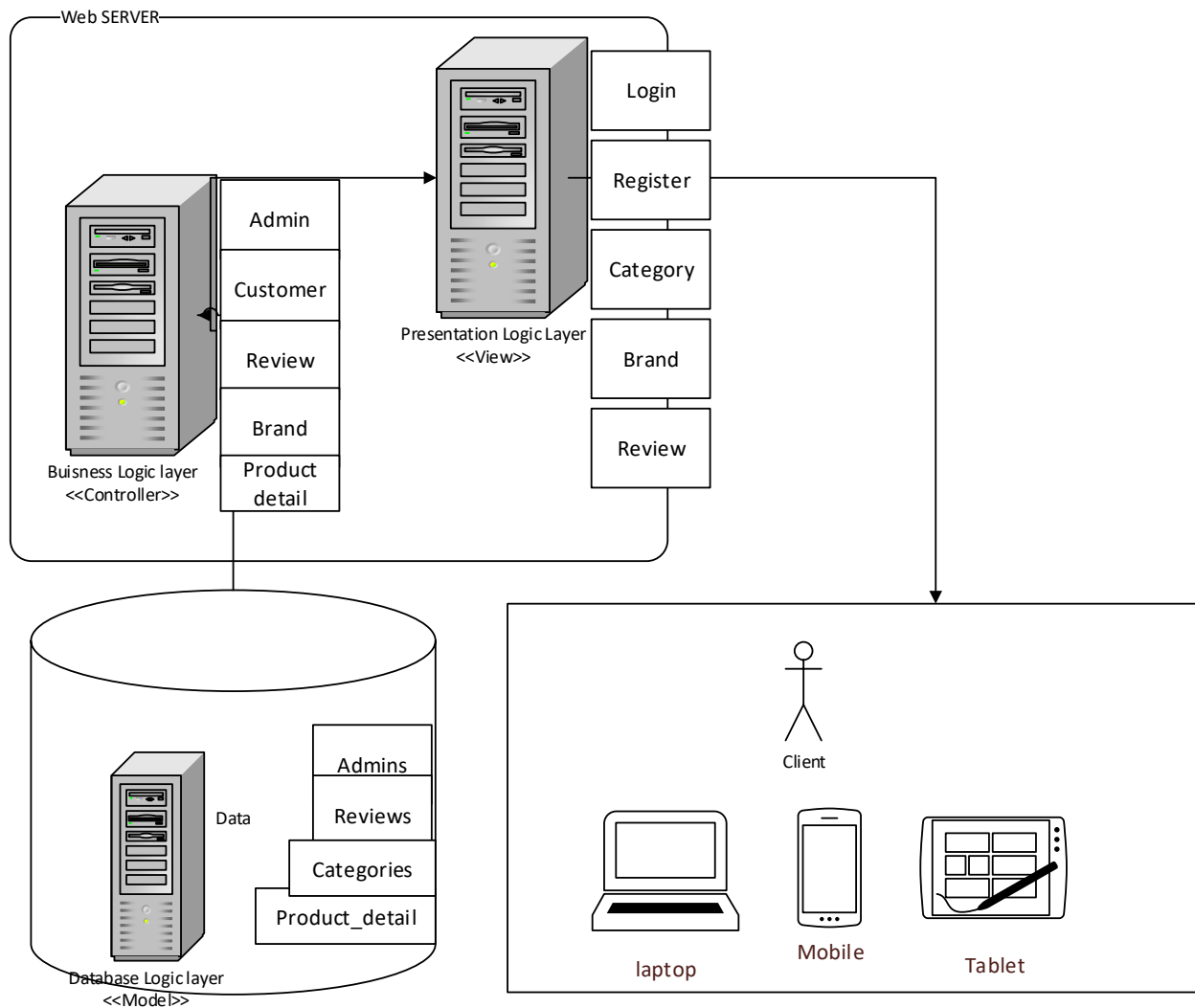


4.9. Component Diagram

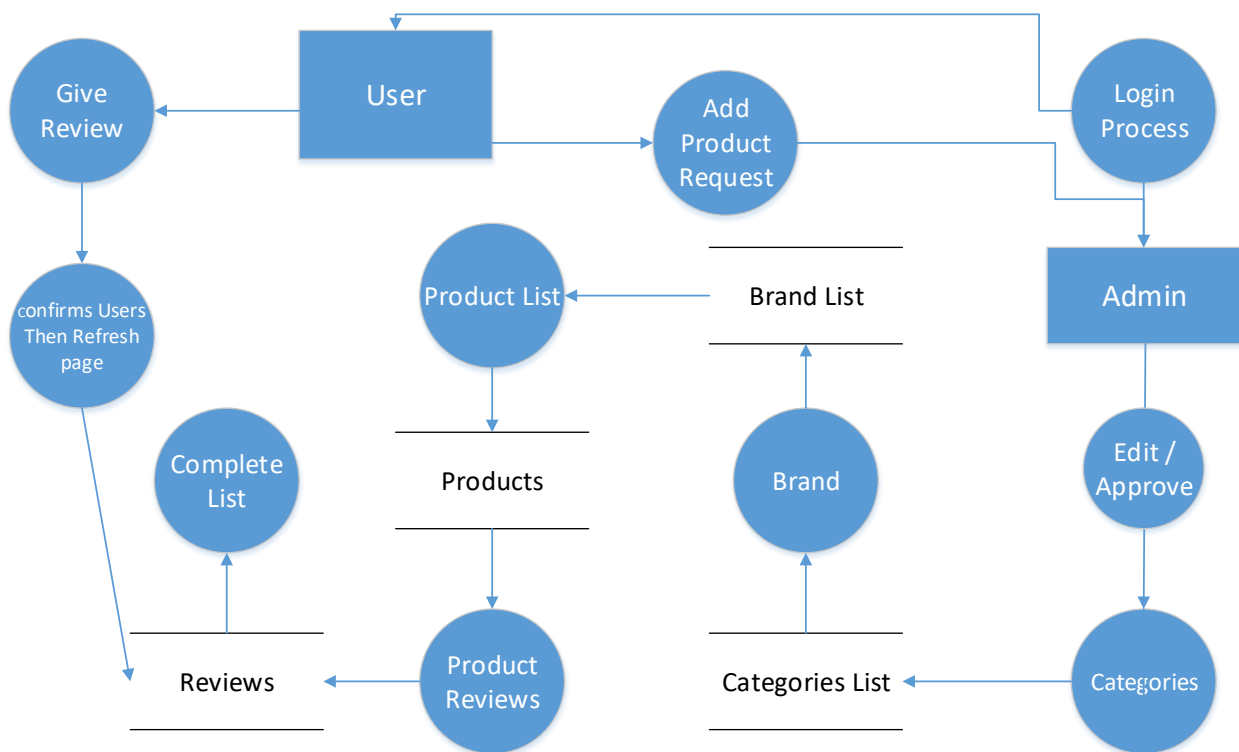
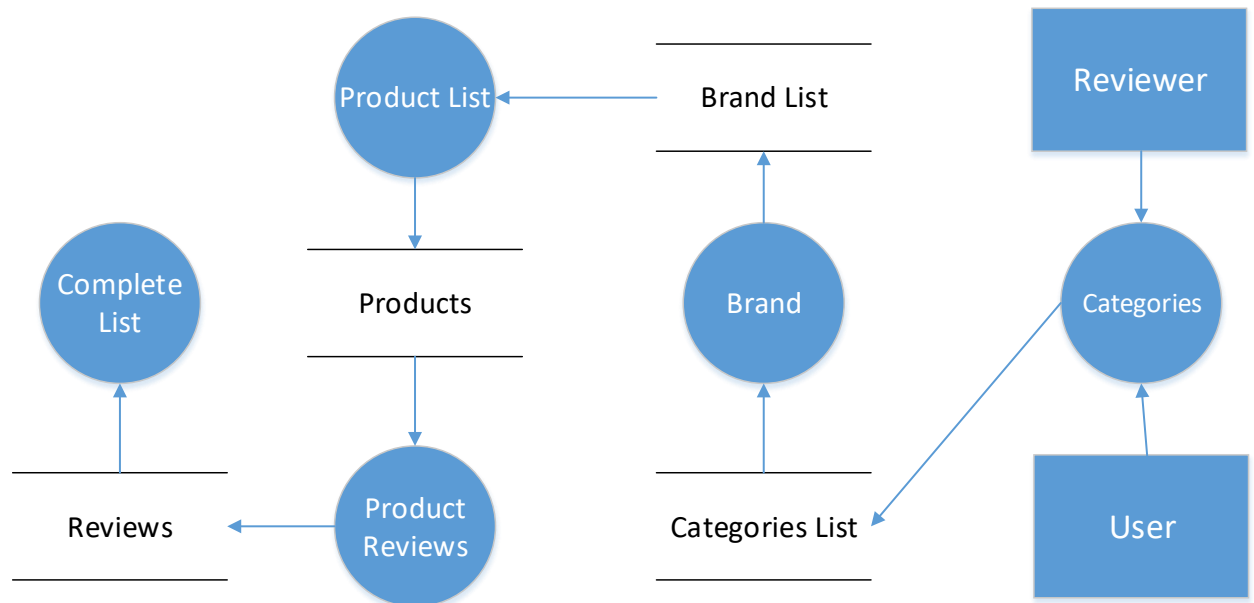


(Visio, n.d.)

4.10. Deployment Diagram



4.11. Data Flow diagram



(Draw.io, n.d.)

Chapter 5

Implementation

Chapter 5: Implementation

In this chapter, we are going to describe all of our implementation plans. This includes the techniques we are going to use, the tools, languages and libraries etc. We will be using agile methodology for the development of our project. Due to the nature of this project we believe agile will suit it the best. Since it is a traditional website, we are going to be using some of the most popular web development tools and techniques, and the system will be deployed accordingly. Further details are mentioned below.

5.1. Important Flow Control/Pseudo codes

Too much data arriving before a device can handle it causes data overflow, meaning the data is either lost or must be retransmitted. For serial data transmission locally or in a network.

A separate critic panel will be created to handle all the critic accounts and their reviews.

```
Public Class Critic {
    Int ID, age;
    String name, type, Review, Rating;
    Critic();
    Review();
    GiveRating();
}
```

Same will be done about the trending products.

```
Public Class Trend {
    Int ID;
    String name, type, Review, Rating;
    Trend();
    ViewReason(Reason reason);
    trendChart(graph);
}
```

```
}
```

We are also going to show reasons for the success of products as well as for their decline.

```
Class Reason{  
    IntreasonID;  
    String reasonType, reasonDescription, peopleReason, criticsReason;  
    Public Reason(intreasonID, String reasonType, String reasonDescription, String peopleReason,  
    String criticsReason);  
    //setters and getters;  
}
```

This concludes our main components and classes.

5.2. Components, Libraries, Web Services and stubs

- JQuery is a JavaScript library that will be used throughout this project.

5.3. Deployment Environment

- Browser
 - Chrome
 - Mozilla

5.4. Tools and Techniques

Tools:

- Php storm
- Xampp

Language:

- Php

Database

- Mysql

Technique:

- Agile SDLC technique will be used in development of the project.

5.5. Best Practices / Coding Standards

- Method names MUST be declared in camelCase.
- Class constants MUST be declared in all upper case with underscore separators.
- Namespaces and classes MUST follow an “autoloading”.
- Files MUST use only UTF-8 without BOM for PHP code.
- Files MUST use only `<? php` and `<? =` tags.
- File Should either declare symbols (classes, functions, constants, etc.) or cause side-effects (e.g. generate output, change settings) but Should not do both.

5.6. Version Control

We will be using Git as our version control system.

Chapter 6

Testing and Evaluation

Chapter 6: Testing and Evaluation

6.1. Use Case Testing

Test Suit ID	TS001
Test Case ID	TC001
Test Case Summary	To verify that clicking the menu button generate the drop down menu.
Related Requirements	RS002
Prerequisites	• User must be registered. • User must be login into his/her account.
Test Procedure	• Hover the mouse over menu button and press left mouse button. • Or press the tab key to select the menu button. • It will generate and display the menu item list.
Test Data	• Denominations: a, A, k, h, I, 4, -, = etc • Quantities: Mouse click, Tab Key, Enter Key.
Expected Result	• Tab key and the mouse cursor can go over the menu button. • By clicking or selecting the menu button, menu generates.
Actual Result	• If the pressing key isn't the tab, nothing can happen. • If the enter key or mouse left key isn't press, menu cannot generate. • The other results are vice versa.
Status	Passed
Remarks	This is a sample test case.
Created By	Muhammad Taha Basit
Date Of Creation	August 2,2018
Executed By	Muhammad Taha Basit
Date Of Execution	August 2,2018
Test Environment	• OS: Windows 10 • Online Review System

Test Suit ID	TS001
Test Case ID	TC002
Test Case Summary	To verify that Admin can edit .
Related Requirements	RS002
Prerequisites	• User must be registered. • User must be login into his/her account.
Test Procedure	• Hover the mouse over menu button and press left mouse button. • Then hover the mouse over login button and press the login after filling the requirements . • Or press the tab key to select the menu button. • It will ask for username and password.
Test Data	• Denominations: a, A, k, h, I, 4, -, = etc. • Quantities: Mouse click, Tab Key, Enter Key.
Expected Result	• Tab key and the mouse cursor can go over the menu button. • By clicking or selecting the login button, person logins.
Actual Result	• If the pressing key isn't the tab, nothing can happen. • If the enter key or mouse left key isn't press, menu cannot generate. • If the entered data isn't wrong person will login . • The other results are vice versa.
Status	Passed
Remarks	This is a sample test case.
Created By	Muhammad Taha Basit
Date Of Creation	August 2,2018
Executed By	Muhammad Taha Basit
Date Of Execution	August 2,2018
Test Environment	• OS: Windows 10 • Online Review System

Test Suit ID	TS001
Test Case ID	TC003
Test Case Summary	To verify that customer can only view products and their reviews.
Related Requirements	RS002
Prerequisites	• User must be viewer. • User may need to register.
Test Procedure	• Hover the mouse over view products button. • Or press the tab key to select the menu button. • It will generate and display the items in database and their reviews.
Test Data	• Denominations: a, A, k, h, I, 4, -, = ,* etc • Quantities: Mouse click, Tab Key, Enter Key.
Expected Result	• Tab key and the mouse cursor can go over the button. • By clicking or selecting the items button, result generates.
Actual Result	• If the pressing key isn't the tab, nothing can happen. • If the enter key or mouse left key isn't press, menu cannot generate. • The other results are vice versa.
Status	Passed
Remarks	This is a sample test case.
Created By	Muhammad Taha Basit
Date Of Creation	August 2,2018
Executed By	Muhammad Taha Basit
Date Of Execution	August 2,2018
Test Environment	• OS: Windows 10 • Online Review System

Test Suit ID	TS001
Test Case ID	TC004
Test Case Summary	To verify that customer options menu appear for customer.
Related Requirements	RS002
Prerequisites	• User must be registered. • User must be login into his/her account.
Test Procedure	• Hover the mouse over buttons and press left mouse button. • Or press the tab key to select the menu button. • It will generate and display the menu item list.
Test Data	• Denominations: a, A, k, h, l, 4, -, = etc • Quantities: Mouse click, Tab Key, Enter Key.
Expected Result	• Tab key and the mouse cursor can go over the menu button. • By clicking or selecting the menu button, menu generates.
Actual Result	• If the pressing key isn't the tab, nothing can happen. • If the enter key or mouse left key isn't press, menu cannot generate. • The other results are vice versa.
Status	Passed
Remarks	This is a sample test case.
Created By	Muhammad Taha Basit
Date Of Creation	August 2,2018
Executed By	Muhammad Taha Basit
Date Of Execution	August 2,2018
Test Environment	• OS: Windows 10 • Online Review System

Test Suit ID	TS001
Test Case ID	TC005
Test Case Summary	To verify that user enter some text but not exceed the limit in product review.
Related Requirements	RS002
Prerequisites	• User must click on to the menu button. • User must be login /registered. • User must select the write review option in the product.
Test Procedure	• Enter some text. • Cannot exceed the text limit. • Limit is 10 letters including special character etc.
Test Data	• Denominations: hello, you cannot exceed the 10 letter limit, ==+++++++-2324523434t534-2 etc • Quantities: Maximum 10 letters.
Expected Result	• User enter some text, within the declared limit. • User cannot exceed the text limit.
Actual Result	• User entered some text. • User crossed the text limit, but text didn't transferred and the alert pops up "Reduce the text please".
Status	Passed
Remarks	This is a sample test case.
Created By	Muhammad Taha Basit
Date Of Creation	August 8, 2018
Executed By	Muhammad Taha Basit
Date Of Execution	August 18, 2018
Test Environment	• OS: Windows 10 • Online Review System

Test Suit ID	TS001
Test Case ID	TC005
Test Case Summary	To verify that product is available.
Related Requirements	RS002
Prerequisites	• User must click on to the menu button. • User must know correct spelling. • User must search the product name.
Test Procedure	• Enter some valid name of product. • Cannot exceed the text limit. • Limit is 20 letters without special characters.
Test Data	• Denominations: no results found etc • Quantities: Maximum 20 letters.
Expected Result	• User enter some text, within the declared limit. • User cannot exceed the text limit.
Actual Result	• User entered some product name. • User searched invalid name but results were generated and showed zero result “no results found”.
Status	Passed
Remarks	This is a sample test case.
Created By	Muhammad Taha Basit
Date Of Creation	August 8, 2018
Executed By	Muhammad Taha Basit
Date Of Execution	August 18, 2018
Test Environment	• OS: Windows 10 • Online Review System

6.2. Equivalence partitioning

When the id is being register on email it will have limited values which allows the user to write only email and format. The email part will have necessary @name.com check which will let the users input only email in the email bar.

A-Z	a-z	0-999	@ and .	Special keywords
Valid	Valid	Valid	Valid	invalid

6.3. Boundary value analysis

Test Scenario Description	Expected Outcome
Boundary Value = 0	System should NOT accept
Boundary Value = 15	System should accept
Boundary Value = 20	System should accept
Boundary Value = 35	System should accept
Boundary Value = 40	System should accept
Boundary Value = 41	System should NOT accept

6.4. Data flow testing

Data-flow testing is a white box testing technique that can be used to detect improper use of data values due to coding errors. Errors are inadvertently introduced in a program by programmers. For instance, a software programmer might use a variable without defining it.

```

1. public function login(Request $request)
2.   $email = $request['email'];
3.   $password = $request['password'];
4.   $login = Customer::select('id', 'name')->where('email', $email)->where
('password', $password)->first();
5.   if ($login) {
6.     session_start();
7.     session(['email' => $email]);
8.     session(['id' => $login->id]);
9.     session(['customer_logged_in' => true]);
// session(['name' => Customer::select('name')]);
10.  return redirect()->route('customer_profile');}
11.  else
12.  return back()->with('error', 'Entered Email or Password is Incorrect');

```

PATH : 1,2,3,4,5,6,7,8,9,10

2ND PATH : 1,2,3,4,5,11,12

Anomaly		Explanation
~d	first define	Allowed.
du	define – use	Allowed. Normal case.
dk	define – kill	Potential bug. Data is killed without use after definition.
~u	first use	Potential bug. Data is used without definition.
ud	use – define	Allowed. Data is used and then redefined.
uk	use – kill	Allowed.
~k	first kill	Potential bug. Data is killed before definition.
ku	kill – use	Serious Defect. Data is used after being killed.
kd	kill – define	Allowed. Data is killed and then re-defined.
dd	define–	Potential bug. Double definition.

	define	
uu	use – use	Allowed. Normal case.
kk	kill – kill	Potential bug.
d~	define last	Potential bug.
u~	use last	Allowed.
k~	kill last	Allowed. Normal case.

6.5. Unit testing

Unit testing is a software development process in which the smallest testable parts of an application, called units, are individually and independently inspect closely to work properly. Unit testing is usually automated it is inherited software n developer tools which help in unit testing at the moment and point out mistakes during development.

Unit testing

Login	
Inputs	Email ,password
Outputs	Login complete

Register	
Inputs	Email, Password, Age, Address
Outputs	Registered

Review	
Inputs	Written data
Outputs	Saved

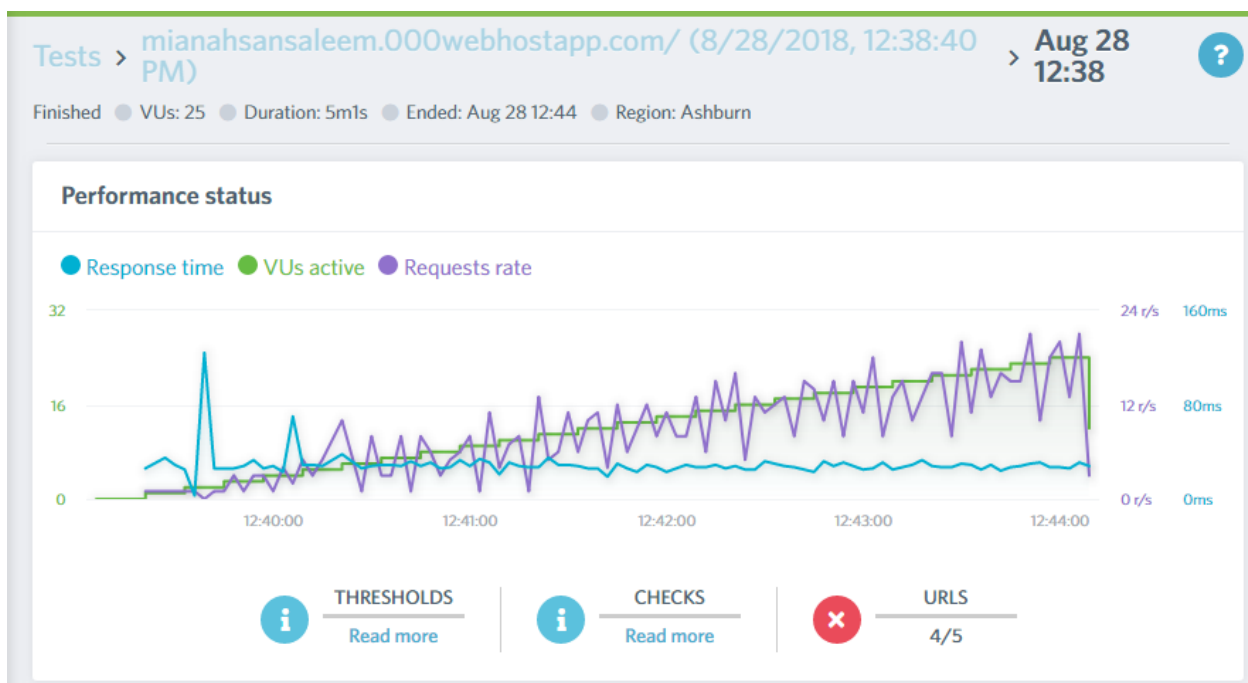
View products	
Inputs	Show products button
Outputs	List of products

6.6. Integration testing

System integration testing (SIT) is a high-level software testing process in which testers verify that all related systems maintain data integrity and can operate in coordination with other systems in the same environment.

6.7. Performance testing

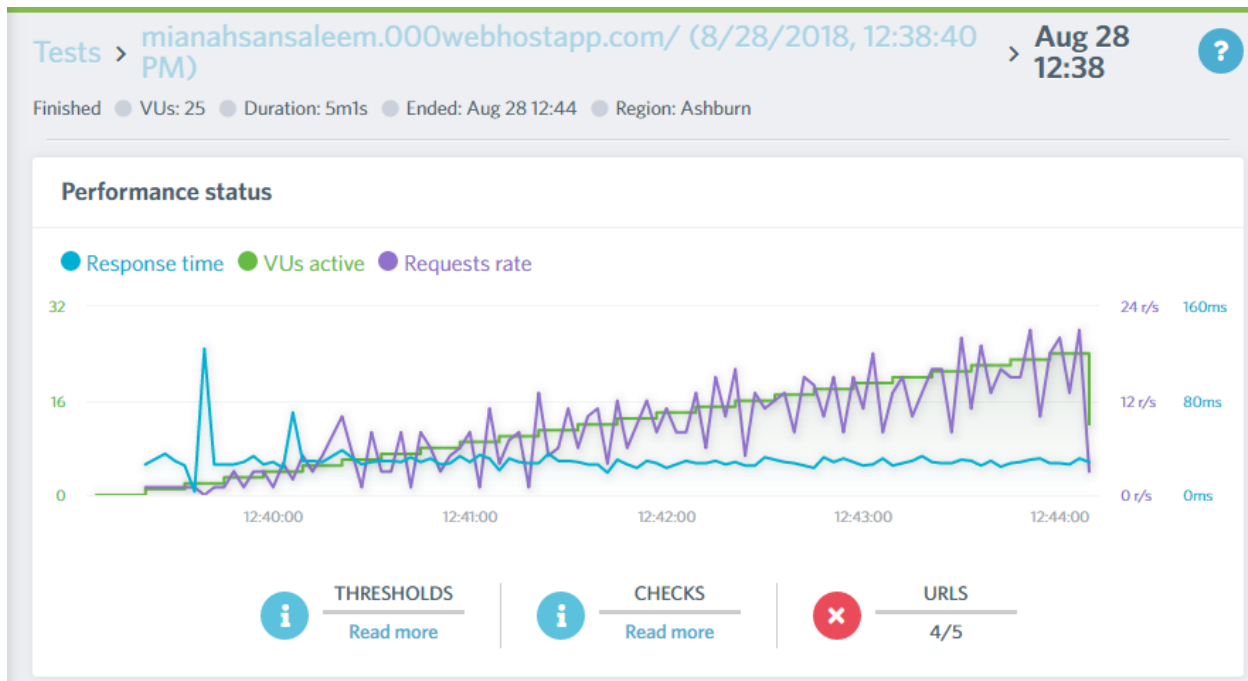
In software engineering, performance testing is in general, a testing practice performed to determine how a system performs in terms of responsiveness and stability under a particular workload.



Response time and request rates are performance testing values shown in graph from load impact tool.

6.8. Stress Testing

Stress testing refers to the testing of software to determine whether its performance is satisfactory under any extreme and unfavorable conditions, which may occur as a result of heavy network traffic, process loading and maximum requests for resource utilization.



The vu stands for virtual users which shows the stress on website.

Filters

Aggregation

Mean

Filter by tags

Use key:value pairs

Breakdown tree

URL table

Test script

Request	Status	Count	Minimum	Average	Standard deviation	95th percentile	99th percentile	Maximum
mianahsansalee...	404	514	106ms	125ms	15ms	155ms	189ms	201ms
cdn.rawgit.com/....	301	514	0ms	1ms	6ms	1ms	12ms	91ms
raw.githubusercontent.com	200	514	0ms	0ms	0ms	1ms	2ms	3ms
fonts.gstatic.com	200	514	2ms	2ms	0ms	2ms	3ms	4ms
fonts.googleapis.com	200	514	10ms	12ms	0ms	13ms	14ms	15ms

Chapter 7

Summary, Conclusion and Future Enhancements

Chapter 7: Summary, Conclusion & Future Enhancements

7.1. Project Summary

Online Review System is platform for reviewing the products and user can also give reviews of the product .Non registered can view reviews but cannot perform review on product unless he is login through id he registered. The website will help in many things like will make it easy for the person to decide the product which he wants. The website will help in many products of many categories .this will be benefit for user, by saving a lot of trouble to go through like to believe on one person reviews and headache to know key features and after buying the product grieving. And the money of the buyer goes waste to save that this platform will help a lot of people .And people will not regret what they bought companies will try to improve their products because the customer will be more conscious through our website.

7.2. Achievements and Improvements

The website will achieve many users attractive interface is designed and the website is designed on new platform for minimum errors and good graphical design with attractive colors and interface .Many functions which needed experienced persons was removed but instead a lot simple features got into website. Previous design was complex for user but now the website is most simple and easy to use and understand able. The interface is now like mostly other webpages so the user don't have to learn the new way of using it. The website is most easy and person can add products and view it. They use the website without any external help.

7.3. Critical Review

The website lacks the most features that was designed to be inside due to lack of time space and experience most parts needed full fledge developer skills so we decided to remove the parts replace with the simple ones. Some functions needed to be removed but all together it makes good user review website .The website will performance need to be increase all together performance is satisfying.

7.4. Lessons Learnt

Some features doesn't come as blessing they need a lot time to be inserted in working platform. Describing is difficult but to develop it is most difficult. Timeline defined was less experienced so the project was not fully developed according to designed one by us. But main thing is most features oral discussed cannot be developed and this cause some features addition and some features removal. Learning a new platform for the development of the project can cause a lot of time and cost.

7.5. Future Enhancements/Recommendations

In future website will be grow users databases will need to be change and some more features may be needed to enhance the user compatibility with the website.

Reference and Bibliography

Reference and Bibliography

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- [3] <https://loadimpact.com/>
- [4] <https://Wikipedia.org>
- [5] <https://Draw.io>
- [6] <https://Google.com>