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Abstract

This report provides a thorough overview of the web application system. Introduction, Background, Developments, Progress, Future Work, References, and Appendix are among the components (Chapters) that make up the report. It gives all readers a quick overview of the report.

All the topics are covered in the first chapter, Introduction, which contains a problem statement, objectives, and features. The research for the project is contained in the second chapter (Background). The third chapter (development) covers the project's progress to date. The status of each work is presented in Progress, and if the task is not completed on time, the cause for the delay is given, as well as instructions on how to recover from the delay. Future work includes the project's remaining work as well as a completion date. Then, in the reference section, all the project's references, such as books, documents, web sites, and so on, are listed. Additionally, all extra documentation is provided in the Appendix section as verification that all the process has been completed successfully.

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1 Chapter 1: Introduction

1.1 Introduction of Topic

Every day, an increasing number of people look for apps that will make their lives easier. Customers will have simple access to products and will be able to purchase them in a variety of ways. Innovation is becoming increasingly important in everyday life.

Musicians of the new generation are becoming more technical. With the introduction of a new brand, there is an increase in demand. currently working on a web application for ordering a musical instrument and its accessories. There is a news bog where you can keep up with all the latest musical news. There is a section for secondhand products, which can be utilized to make use of old instruments by selling them to the needy, who can then acquire their product at a lower price. The primary goal of this website is to create and promote musical community. This website's name will be '666 music.'

1.2 statement

Although Nepal has a plethora of excellent musicians, there is no proper online delivery provider that gives appropriate and proper equipment. The primary issue is that, while there are many physical shops for beginners, finding a minor gadget at the professional level is quite difficult. Many people have unwanted instruments that they want to sell, but there is no secondhand music selling website. Some of the major issues that musicians encounter because of a lack of a decent professional website include:

- Unaware of new gadget and brands.
- No Proper information of gadget and price.
- Wasted of time due to the need to physically appear to obtain information.
- No community of musician to buy and sell secondhand product

1.3 Project as a solution

To create a musical community, decided to create a website that would inform musicians and provide a user-friendly interface that would allow users to purchase rare musical equipment at a lower cost, making the users' much easier and more efficient. Can be purchased product through online payment. People can also review their purchase history in detail and submit product comments. There will be music-related news blogs to keep you up to know on the latest brads, gadgets, songs, and many more. Secondhand section where you can describe your old product in detail and sell it for a reasonable price.

1.4 Aims and Objectives

The main purpose of this project is to create a music e-commerce and news blog site to make all musical products more affordable. This website's principal purpose is to provide a well-managed and appropriate e-commerce service to those interested in buying musical instruments and accessories with correct information

This project has a various amin and objective, which are described below:

- To design a website utilizing HTML, CSS, JavaScript, and Node.js, which improved programming and web application development abilities and understanding.
- To fully comprehend the website's functioning mechanism and the implementation of numerous APIs,
- To comprehend how a database is implemented in a real-world context.
- To learn how to use the many tools required to complete this app.
- To improve research abilities.
- Reducing price of product by focusing on music product only.
- Increase customer comfort by implementing online payment feature.
- providing music content to keep users up to date
- To promote music industry.
- To make the website available across the world

1.5 Structure of Report

The following format demonstrates how the report's structure is organized:

1.5.1 Introduction

This portion of the section describes the project's topic content. Furthermore, it provides a brief overview of the field's history and developments, as well as highlighting the project's difficulties, goals, and objectives.

1.5.2 Background

This section highlights the project's context and background. It provides an overview of the technology used during the project's development period.

1.5.3 Development

The development part of the project covers all the possible considerations that were done before the project's development phase. In addition, choosing methodology are briefly described, along with a work breakdown structure and Gantt chart.

1.5.4 Testing

This section shows how the project has. The Gantt chart illustrates work schedule management.

1.5.5 Further Work

This section lists all the pending works that must be accomplished later for the project to be completed.

2 Chapter 2: Background

2.1 Project Elaboration

The goal of the project is to help musicians and the music industry in Nepal. by being branded product with profitable at a minimal cost. This will benefit every artist in Nepal by allowing them to give their best live performance or studio recording.

2.2 About the end user

The goal of this project is to create a web application for a music store that is mostly used by customers and admin. I have conducted many surveys among residents and musical friends and colleges. this is how, I was able to gather the needs for my web application, which may help customers solve their difficulties and problems. I discovered that using a survey was a more efficient approach to obtain feedback on this web application.

The survey questions are created as for the needs of customers, musicians, and music fans, so that this application can be usable by a diverse group of people and to improve the web application. I have spoken with a few members of the band about this idea. When they learned that this type of system will be built in the future, they were delighted, and they also claimed that this site would benefit many musicians in various ways.

2.3 Functions and features

- **News Blog**

This is the function that admin has access and control in order to upload blogs. In this function, the administrator uploads all types of music-related information. Advertisement

- **New musical Product**

This is the feature to which the administrator has access and control in order to add new products. Admin has the ability to remove and modify it.

- **Secondhand musical product**

This is the feature to which the registered user has access and control in order to add used products. It can be removed and updated by the user.

- **Comment's box**

This is a feature that only registered users can comment on, but unregistered users can still see.

- **Product filtering & sorting**

This is a function that allows users to filter items by category and sort products by ascending and decreasing price.

- **Digital payment**

User can purchase new product by using online payment

- **Purchase history**

The user can view the history of his or her purchase data, and the administrator can view the payment history of all sold products.

- **Search Product**

Users can search for certain products to find what they are looking for.

2.4 Review of similar systems

2.4.1 Sweetwater

Sweetwater, headquartered in Fort Wayne, Indiana, is the country's largest online retailer of musical instruments and pro audio equipment.

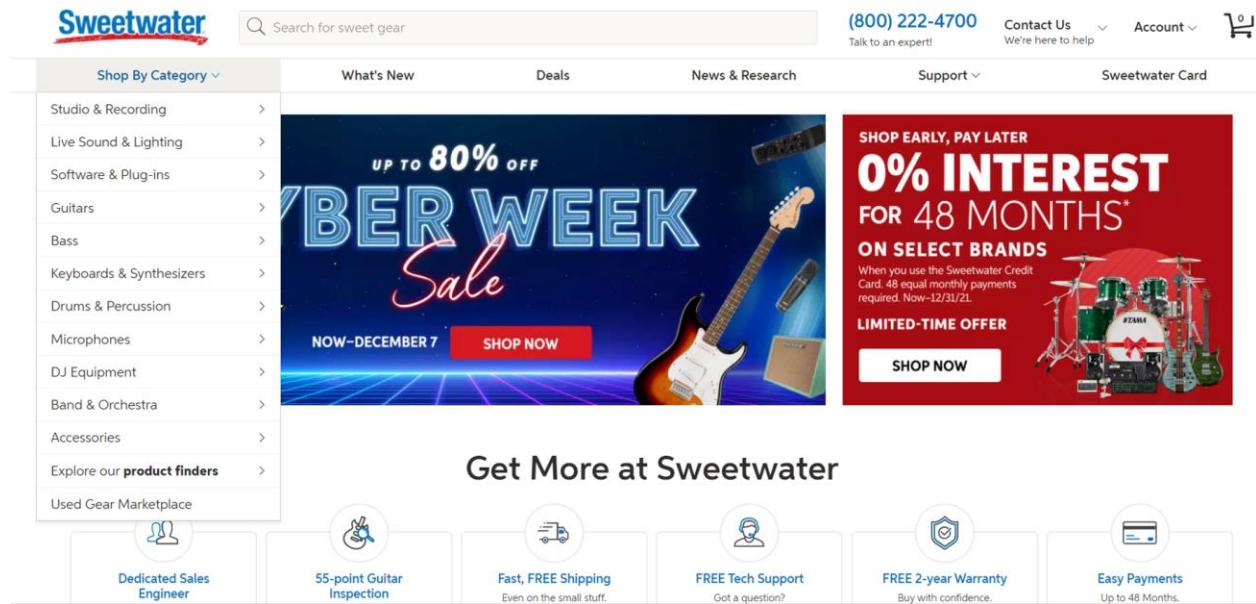


Figure 1: Sweetwater

2.4.2 Daraz

The Daraz Group is a multibillion-dollar digital company that specializes in e-commerce, shipping, payment infrastructure, and financial services.

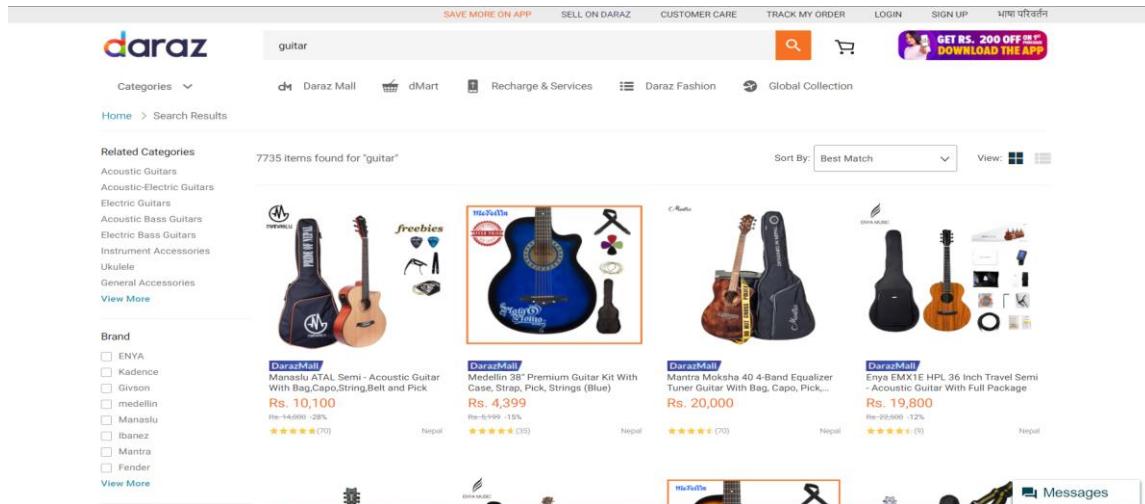


Figure 2: Daraz

2.4.3 Hamrobazar

Hamrobazar is a free online classified that allows individuals and businesses to list a wide range of new and used products. At hamrobazar.com, we believe that the Internet is an excellent promotional tool as well as a means of connecting customers and vendors.

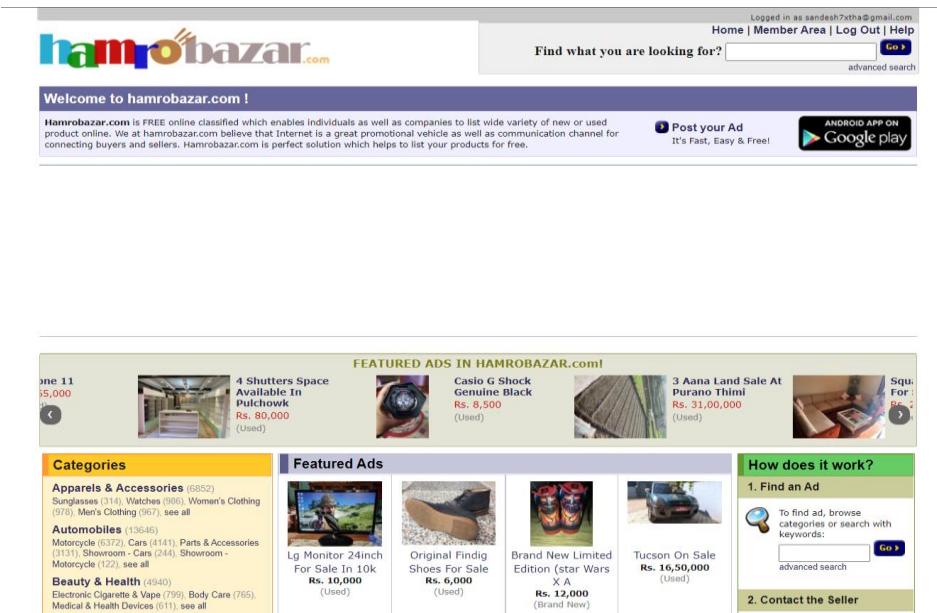


Figure 3: Hamrobazar

2.4.4 ANALYSIS AND COMPARISON WITH SIMILAR SYSTEM

System name	News Blog	Secondhand product	e-commerce store
666Music	Yes	Yes	Yes
Sweetwater	Yes	No	Yes
Daraz	No	No	Yes
Hamrobazar	No	Yes	No

Table 1: ANALYSIS AND COMPARISON WITH SIMILAR SYSTEM

It is clear from the table above that those similar website lacks several of the functionalities found in my web application. In the context of Nepal, this type of website does not exist. The web application's user interfaces are designed to be user-friendly and simple to use. Daraz and Amazon are both third-party sellers. On a smaller scale, they have their own inventory, but most of their products are from third parties. As a result of the intermediary exchangers, the price of the product rises. Sweetwater has the most in common, while 666 Music has a section for used products where people can buy and sell. This website will help to establish a music community and big music brands such as Gibson, Fender, Shure, Roland, and many others want their brands to be included on this type of site rather than e-commerce sites such as Amazon, eBay, and Daraz. As a result, the product's price will be reduced.

2.5 Review of technical aspects

2.5.1 PROGRAMMING LANGUAGES – JavaScript

JavaScript is a dynamic programming language for computers. It is a lightweight component of web pages whose implementations enable client-side script to interact with users and create dynamic sites. It is an object-oriented programming language that can be interpreted.

JavaScript was originally known as LiveScript, but due to the hype surrounding Java, Netscape changed its name to JavaScript. LiveScript was the name given to JavaScript when it originally appeared in Netscape 2.0 in 1995. The language's general-purpose core has been integrated into Netscape, Internet Explorer, and other web browsers. (tutorialspoint, 2021)

2.5.2 IDE-Visual Studio Code

Visual Studio Code is a small but powerful source code editor for Windows, macOS, and Linux that runs on your desktop. It provides built-in support for JavaScript, TypeScript, and Node.js, as well as a diverse ecosystem of extensions for other languages and runtimes (including C++, C#, Java, Python, PHP, and Go) (such as .NET and Unity). (visualstudio, 2021)

In comparison to other text editors, the VS Code user interface allows for a lot of interactivities. VS Code is separated into five primary regions to make the user experience easier:

- The activity bars
- The side bars
- Editor groups
- The panel
- The status bars

2.5.3 Library-React

React is a JavaScript library for creating interactive and fast user interfaces for web and mobile apps. It is a component-based, open-source front-end library that is just responsible for the application's view layer. The view layer oversees how the program looks and feels in the Model View Controller (MVC) architecture. Jordan Walke, a Facebook software engineer, designed React. (Sufiyan, 2021)

2.5.4 Database-MySQL

MySQL is the most widely used relational SQL database management system open source. MySQL is a popular relational database management system (RDBMS) for building web-based software applications. MySQL is a free and open-source database. As a result, there is no cost to use it. MySQL is an extremely powerful program in and of itself. It can handle a significant portion of the features found in the most expensive and sophisticated database solutions. MySQL makes use of a standard version of the widely used SQL data language. MySQL is compatible with a wide range of operating systems and languages, including PHP, JavaScript, C, C++, JAVA, and others.

2.5.5 Framework -Node express

Express is a Node.js web framework that is lightweight and unprejudiced. Express.js is a Node.js web application framework. It has several capabilities that make web application development faster and easier than it would be if simply Node.js was used. Express.js is built on the connect Node.js middleware module, which uses the http module. As a result, any connect-based middleware will function with Express.js. (tutorialsteacher, 2021)

3 Chapter 3: Development

3.1 Methodology

A project management methodology is a collection of concepts and procedures for managing a project. How you work and communicate is determined by the methodology you choose. (Cohen, 2019)

3.1.1 Waterfall Methodology

The waterfall methodology is a linear project way of managing in which stakeholders and customer requirements are gathered at the start of the project, and a sequential project plan is then built to satisfy those requirements. The waterfall model gets its name from the way each phase of the project cascades into the next, like a waterfall. (projectmanager, 2021)

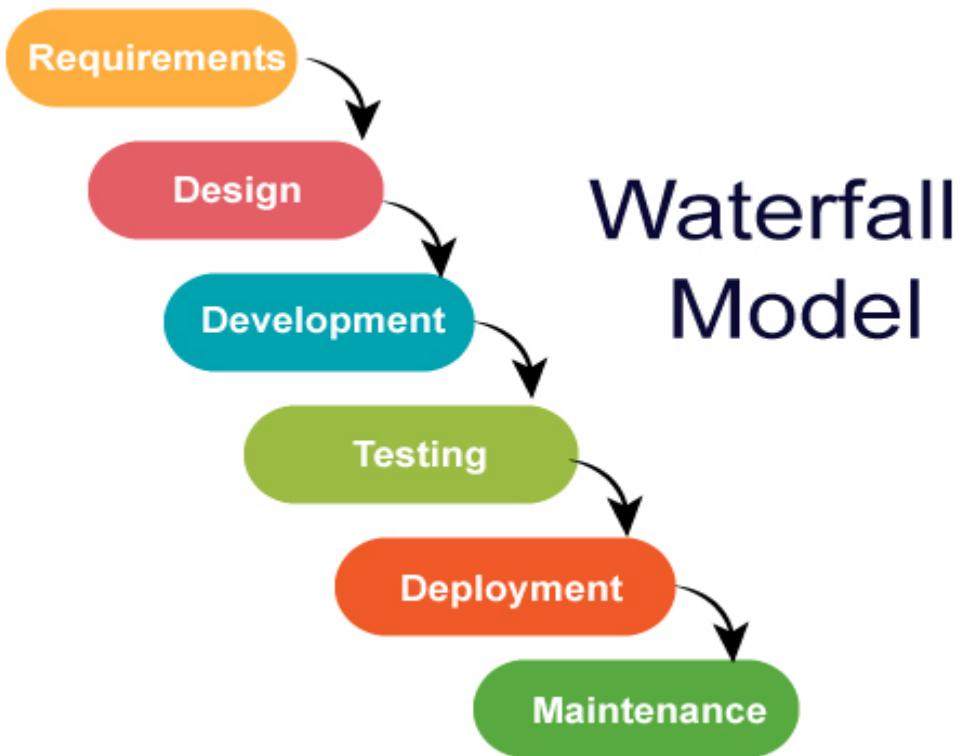


Figure 4: Water Methodology

3.1.2 Prototyping Methodology

The prototyping model is a software development method in which a prototype is created, tested, and changed until it is acceptable. It also serves as a foundation for the creation of the final system or software. It is best used in situations where the project's requirements are not fully understood. It is an iterative, trial-and-error process that occurs between the developer and the client. (Martin, 2021)

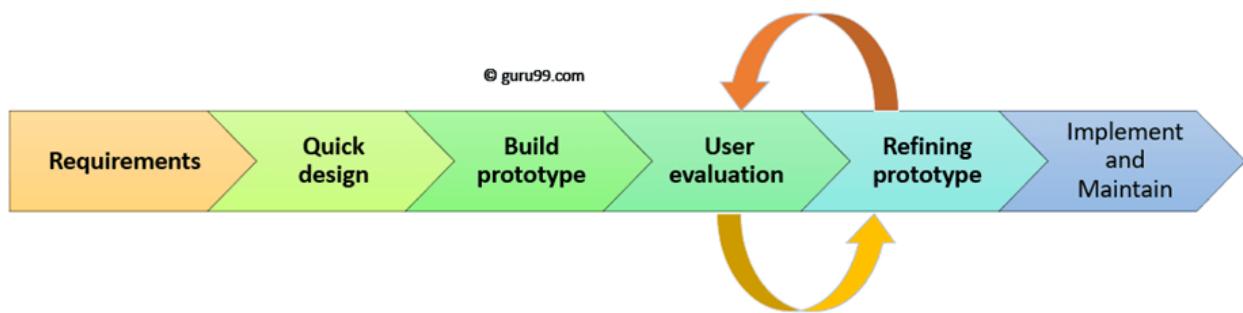


Figure 5: Prototyping Methodology

The six phases of the prototyping model are as follows:

- Requirements gathering and analysis
- Quick design
- Build a Prototype
- Initial user evaluation
- Refining prototype
- Implement Product and Maintain

3.1.3 Agile Methodology

The Agile methodology is a strategy of project management that divides a project into phases. It necessitates ongoing engagement with stakeholders as well as continual development at each stage. Teams cycle through a process of planning, executing, and assessing once the job begins. Collaboration is essential among team members as well as project stakeholders. (wrike, 2021)

Agile Development Cycle

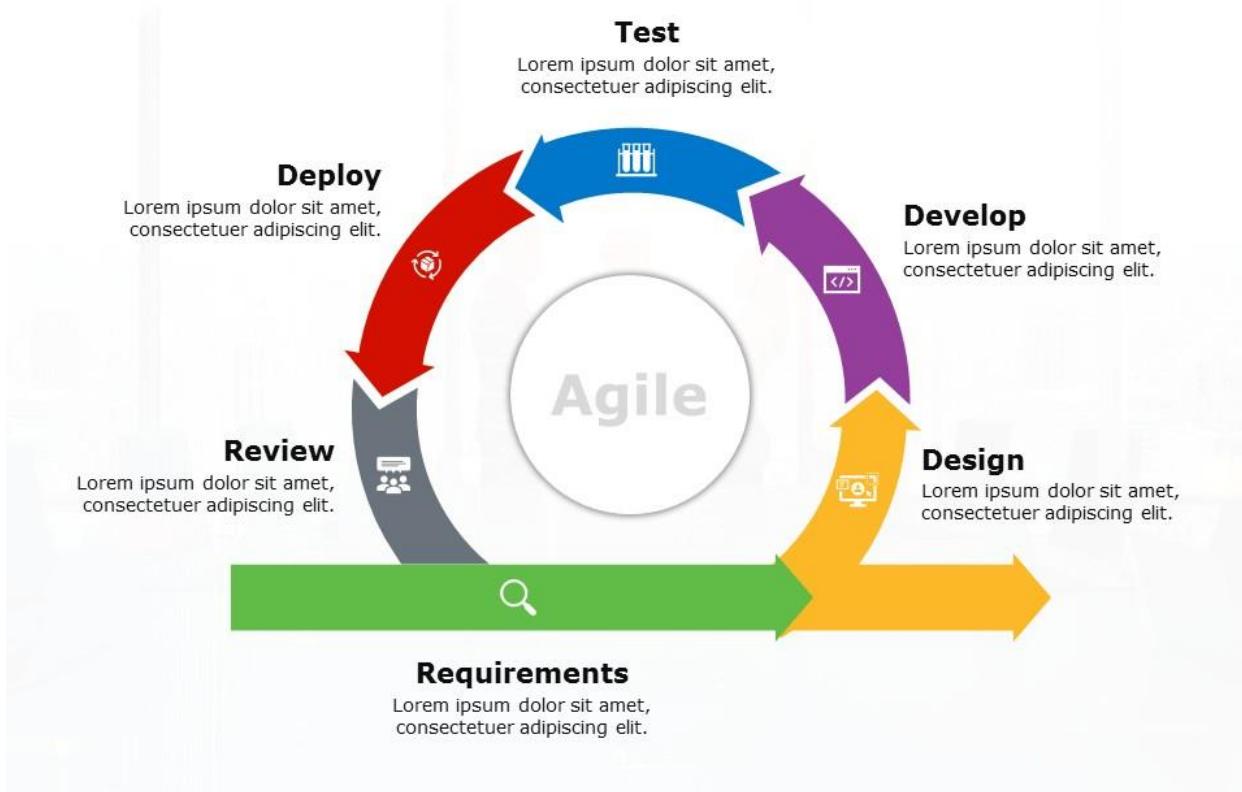


Figure 6: Agile Methodology

3.1.4 RUP (Rational Unified Process) - PREFERRED METHODOLOGY

The Rational Unified Process (RUP) is an approach for agile software development. The project life cycle is divided into four phases by RUP. All six main development disciplines are practiced at each phase: business modeling, requirements, analysis and design, implementation, testing, and deployment. Certain procedures, on the other hand, are more important and take up more time at each level. Business modeling, for example, is typically done in the preliminary stages of development, such as inception and elaboration. Each of the four stages has a primary goal that must be met before the project can go on to the next. (Bugajenko, 2021)

RATIONAL UNIFIED PROCESS (RUP)

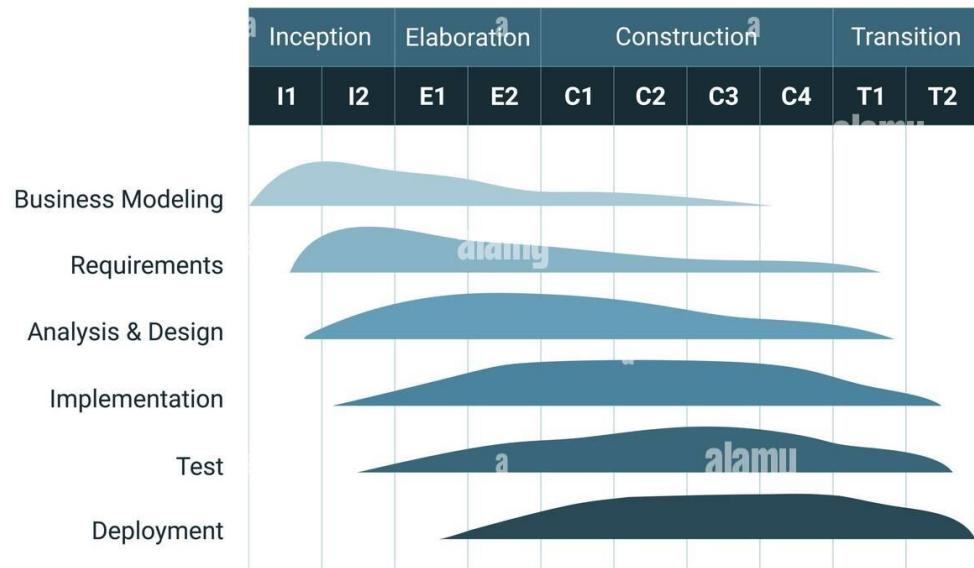


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www.alamy.com

Figure 7: RUP (Rational Unified Process) METHODOLOGY

3.1.5 Justification For Selecting RUP Methodology

I picked the Rational Unified Process (RUP) methodology, which is an agile methodology, to develop this app. it provides a disciplined method for project management, including tasks and responsibilities for each step of development RUP's major goal is to construct the greatest quality system possible within the specified budget and time constraints, with each life cycle step being repeatable if necessary to complete the system and meet the requirements, and ending with the transition phase.

3.1.6 Phases OF Methodology

There are four RUP phases in which have broken down my work, and they are as follows:

Inception:

- Research all the materials that will be used in this project.
- discussion about whether the project was worthwhile with the supervisor
- Calculate the project's overall cost.
- Estimate the amount of time this project will take.
- Set a date for the project's next milestone.

Elaboration:

- Collect and organize all information about the project's resource usage.
- A class diagram, a case diagram, and a collaboration diagram are all created.
- The proposal is documented, and the resources are analyzed.
- create a Gantt chart, a breakdown structure, and milestones.

construction:

- Create the project's prototype and software.
- Development of a project with both a front-end and a back-end.
- The project will be thoroughly tested, including both black-box and white-box testing.
- The project's documentation and report will be created.

Transition:

- End-users will be given access to the app, and feedback will be collected.
- Based on input, final changes and upgrades will be made.

- Beta testing will be carried out.

3.1.7 Sequence Diagram

3.1.7.1 Login

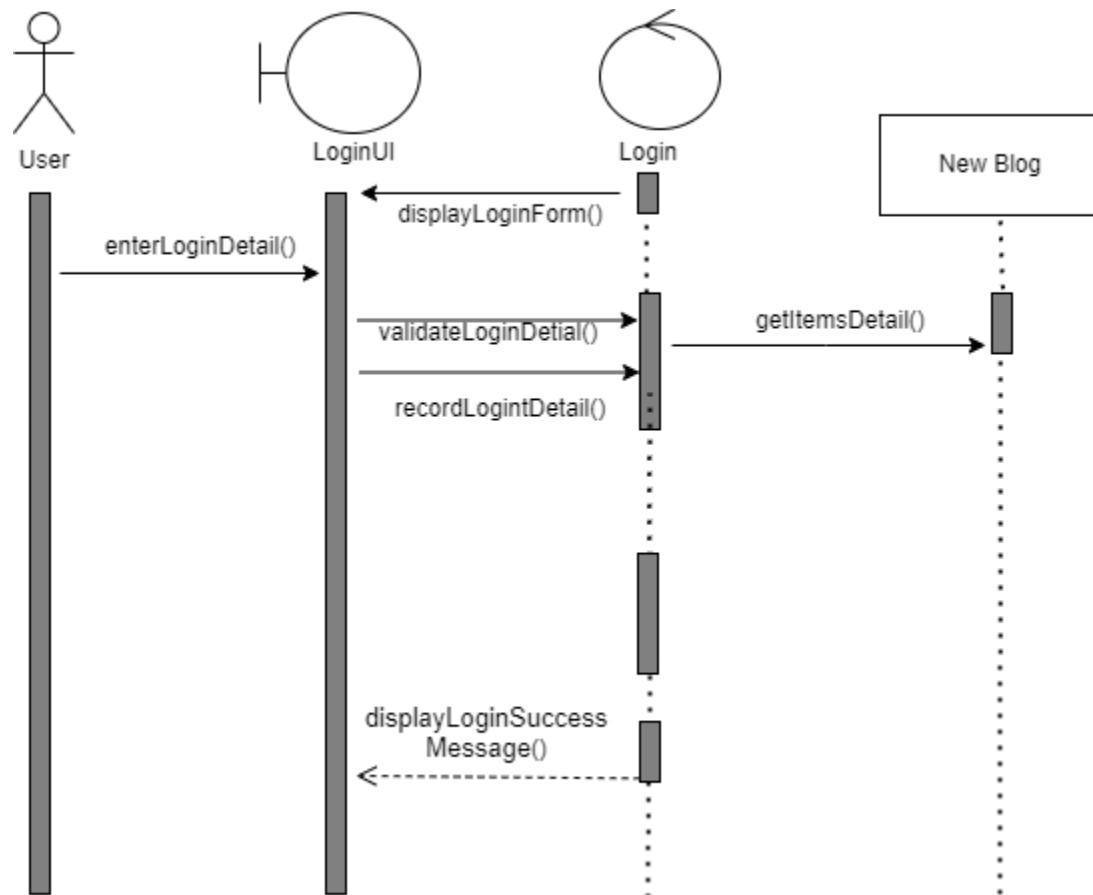


Figure 8 Sequence Diagram - Login

3.1.7.2 Payment

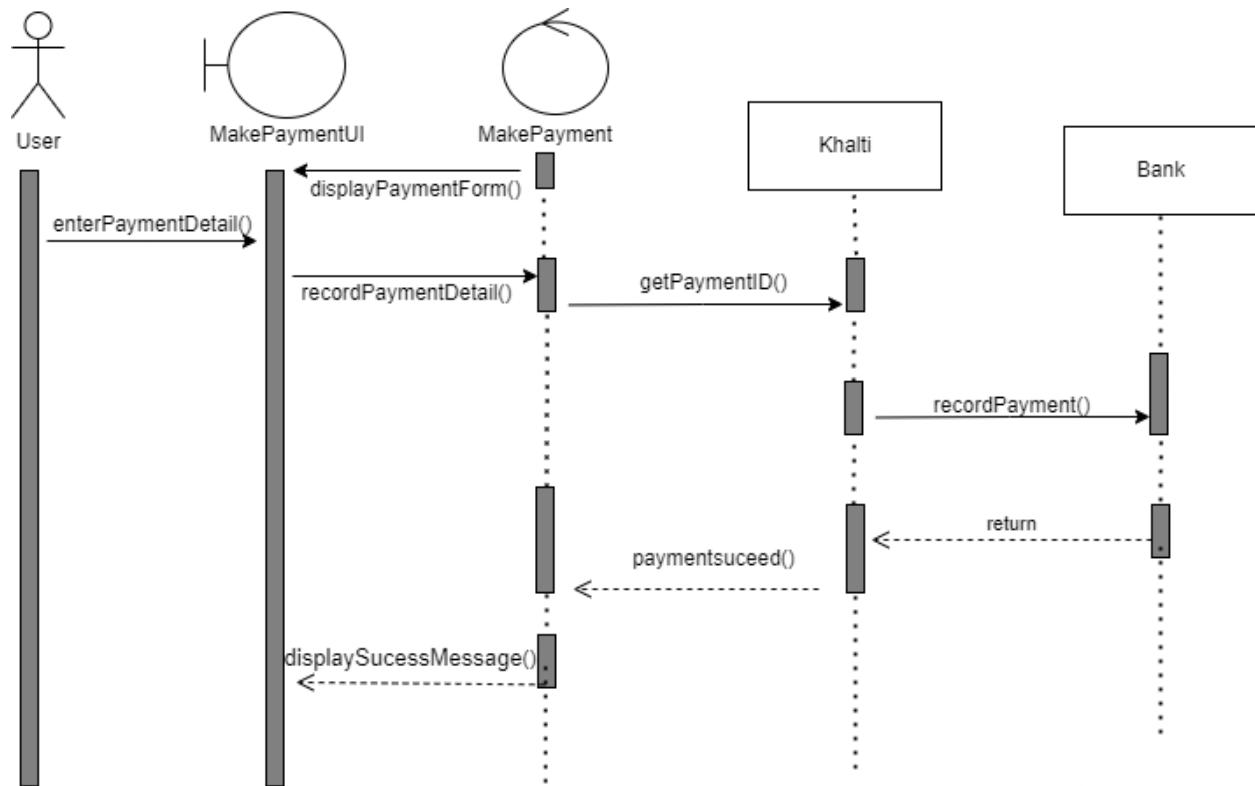


Figure 9 Sequence Diagram - Payment

3.1.7.3 Order Product

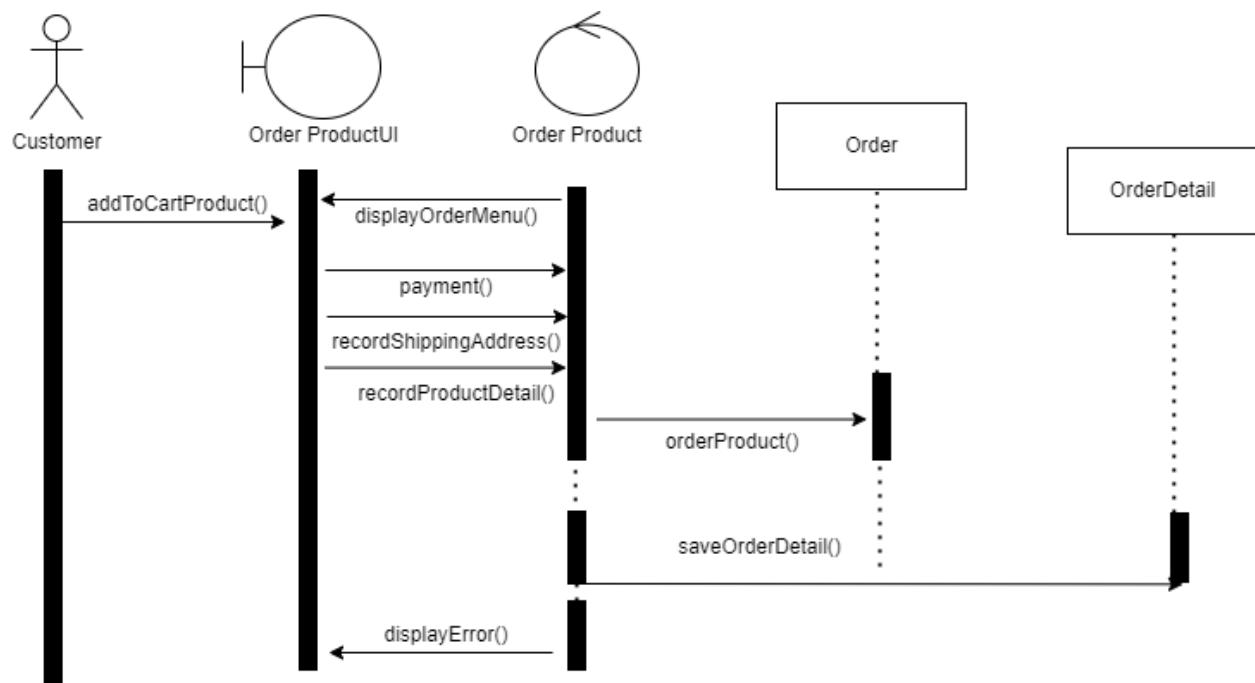


Figure 10 Sequence Diagram - Order detail

3.1.8 Collaborative Diagram

3.1.8.1 Login

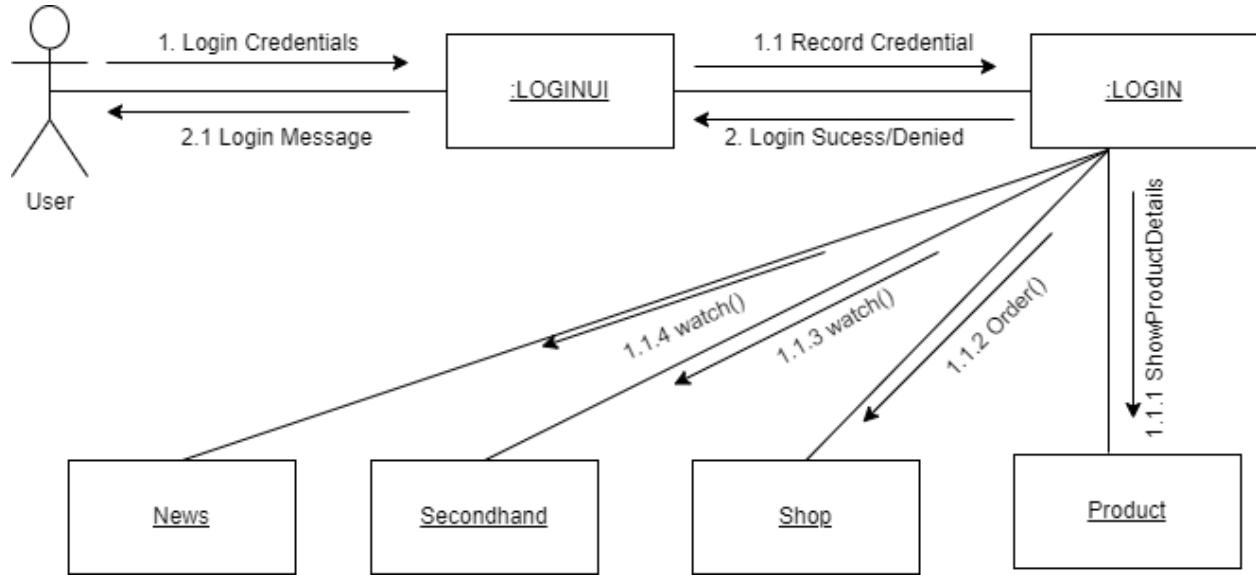


Figure 11 Collaborative Diagram - Login

3.1.8.2 Payment

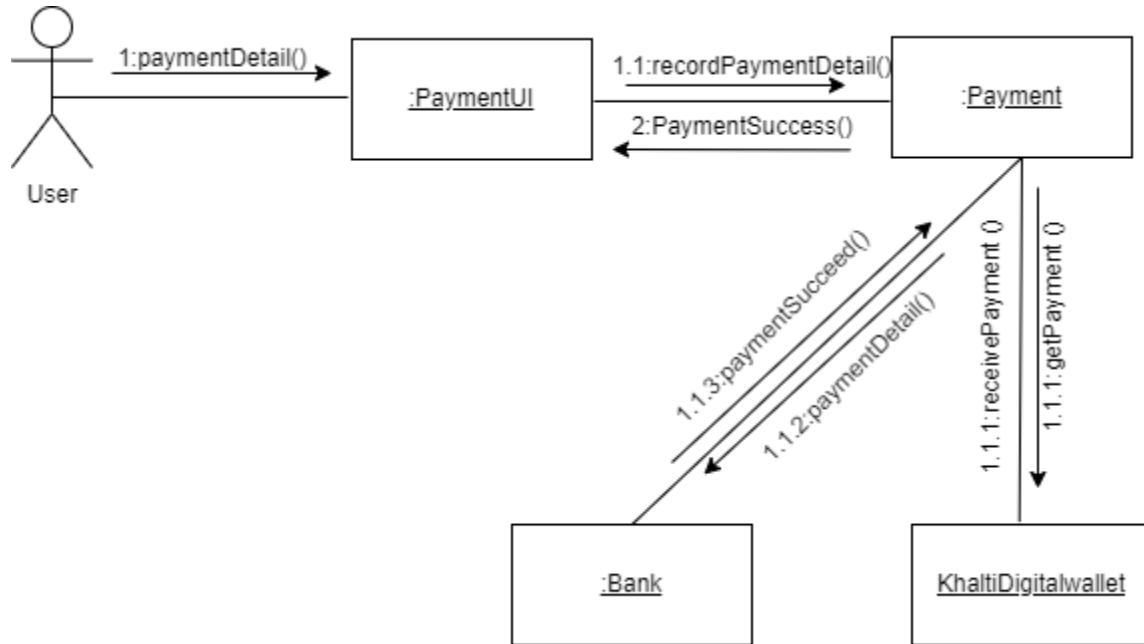


Figure 12 Collaborative Diagram - Payment

3.1.8.3 Order

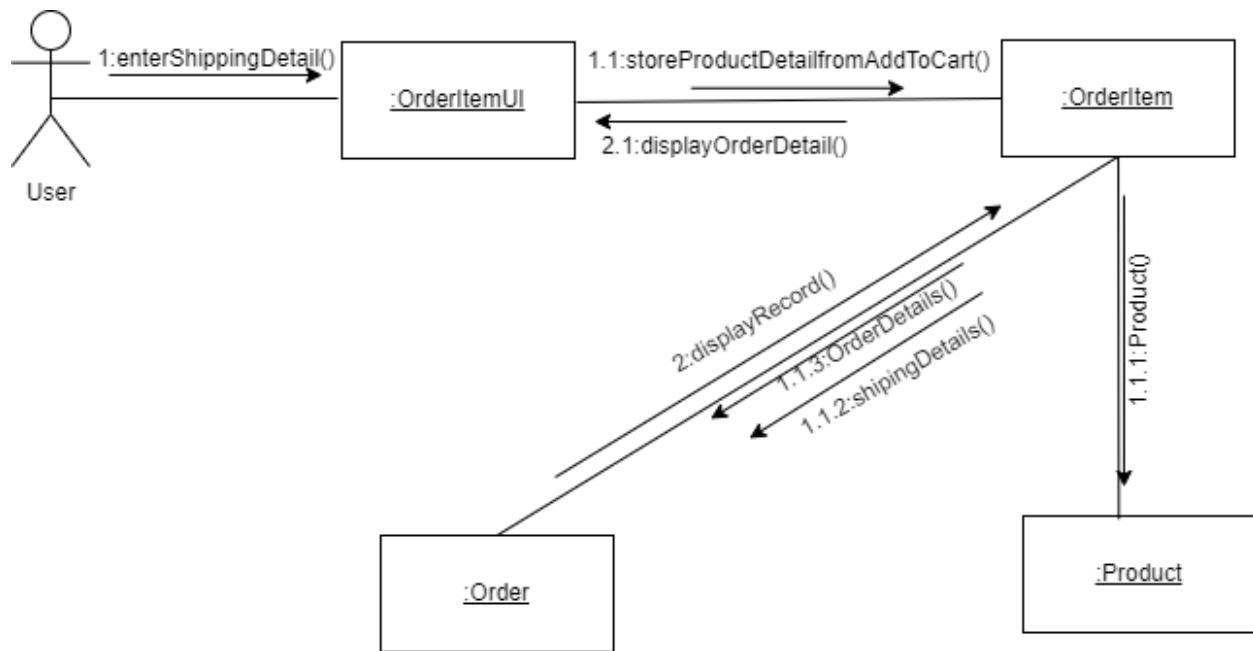


Figure 13 Collaborative Diagram - Order

3.1.9 Survey Result

3.1.9.1 Pre-Survey Result

- Forty-four percent people use music website regular, forty-two% people use sometime and 14 % people use less.
- Fifty-six percent people prefer buying musical instrument and 44 % online.
- while visiting music store in Nepal 44% people encounter high price, 26% order product late arrival and 60% of them get low quality product.
- most effective feature people believe is secondhand product by 48% and followed by online store with 38% and 14% by news blog.
- Seventy-six percent people go to music store to purchase instrument and 10 % of them regularly, fourteen% never visit store.
- Fifty-two percent are unsatisfied by current e commerce site and 38% are in dilemma and 10 % are satisfied.
- Almost 3/4 people believe this website will be beneficial to the music industry.

More Detail on - [Pre-Survey](#)

3.1.9.2 Post-Survey Result

- Many people believe that online ecommerce platforms are reliable and trustworthy.
- Almost half percent buying a musical instrument prefer online and physical
- Almost all feature people believe effective.
- For some extended they think this application could help people for buying musical instrument.
- Most of the people believe prefer digital wallet.

More Detail on - [Post-Survey](#)

4 Chapter 4: Testing

4.1 Black Box Testing

4.1.1 Test Case- Sign Up

objective	To test if the new user is able to register account
Expected Result	There should be no issues while registering a new account in the system, but it should give an error if the required data is insufficient or incorrectly formatted.
Actual Result	There are no issues while registering a new account in the system, but it gives an error if the required data is insufficient or incorrectly formatted.
Conclusion	Successful.

Table 2 Test Case- Sign Up

Create Account

Full Name

Required

Email

Email Required !

Password

Password is required

Confirm password is re...

SIGN UP

We value your privacy. Your details are safe with us.

Figure 14 Test Case- Sign Up

Create Account

Full Name

Full name

Sandesh Shrestha

Email

Invalid Email Format

sandesh7xtha

Password

At least 6 charaters

.....

Password must match

.....|

SIGN UP

We value your privacy. Your details are safe with us.

Figure 15 Test Case- Sign Up 2

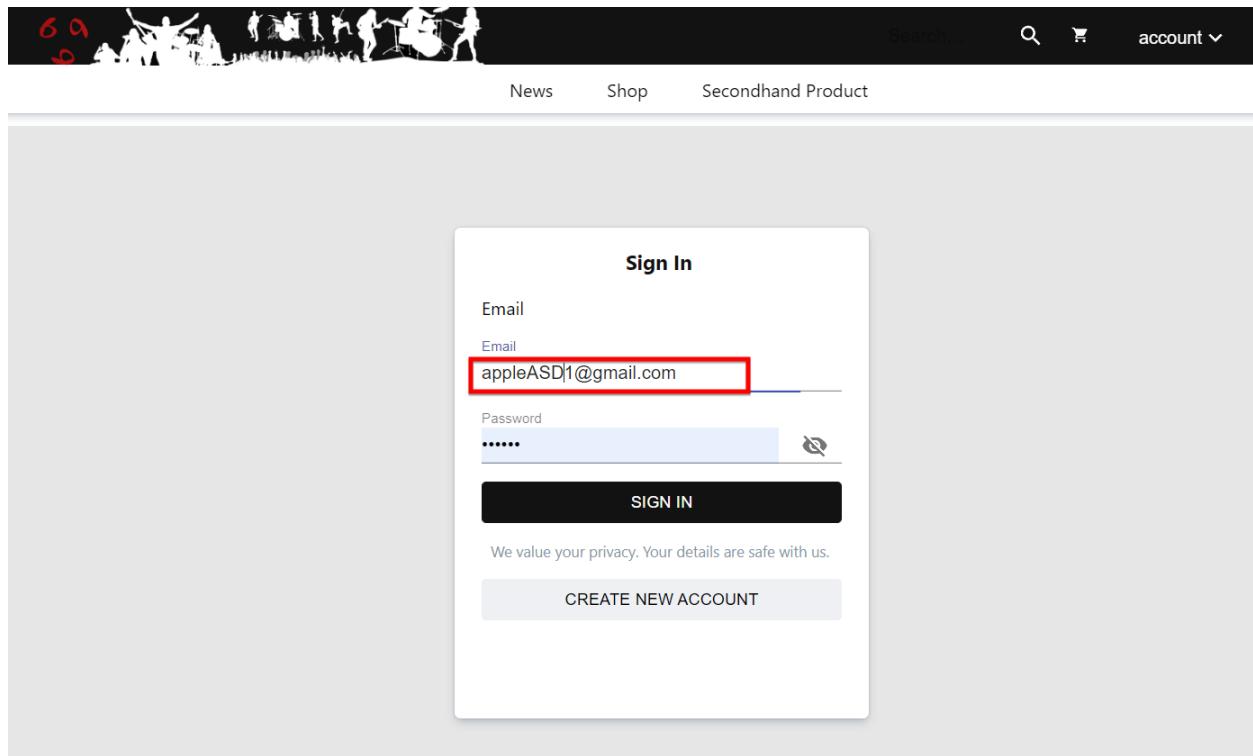


Figure 16 Test Case- Sign Up 3

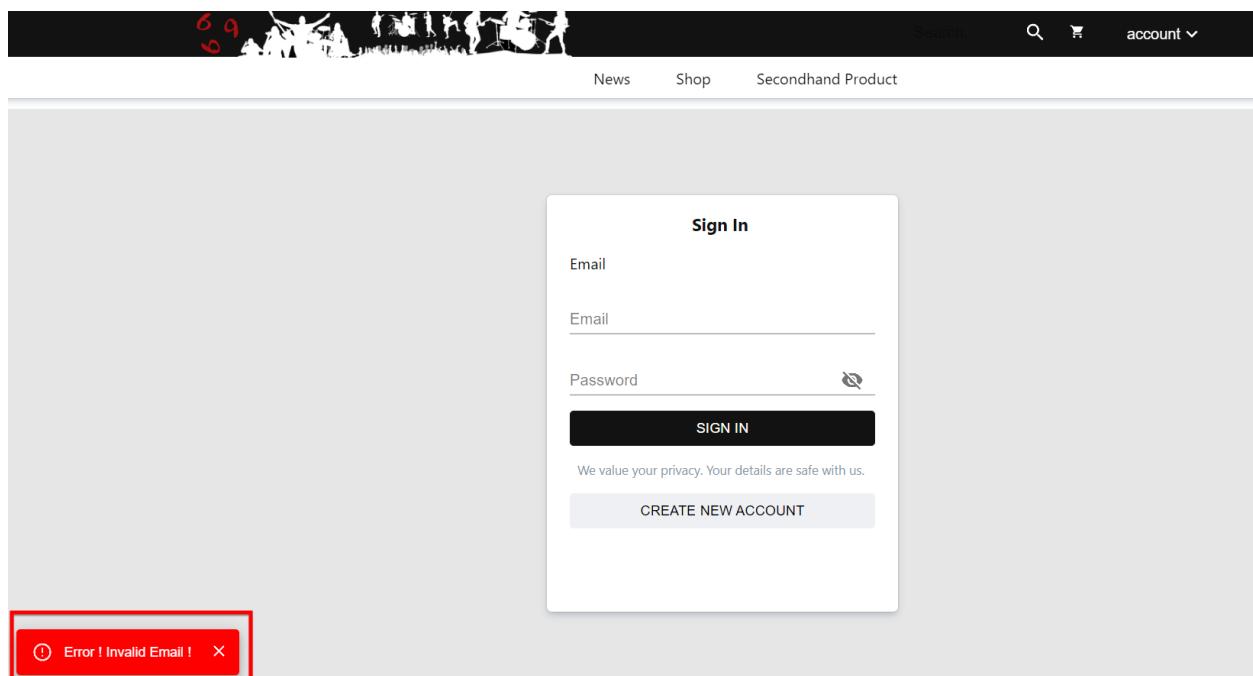


Figure 17 Test Case- Sign Up 4

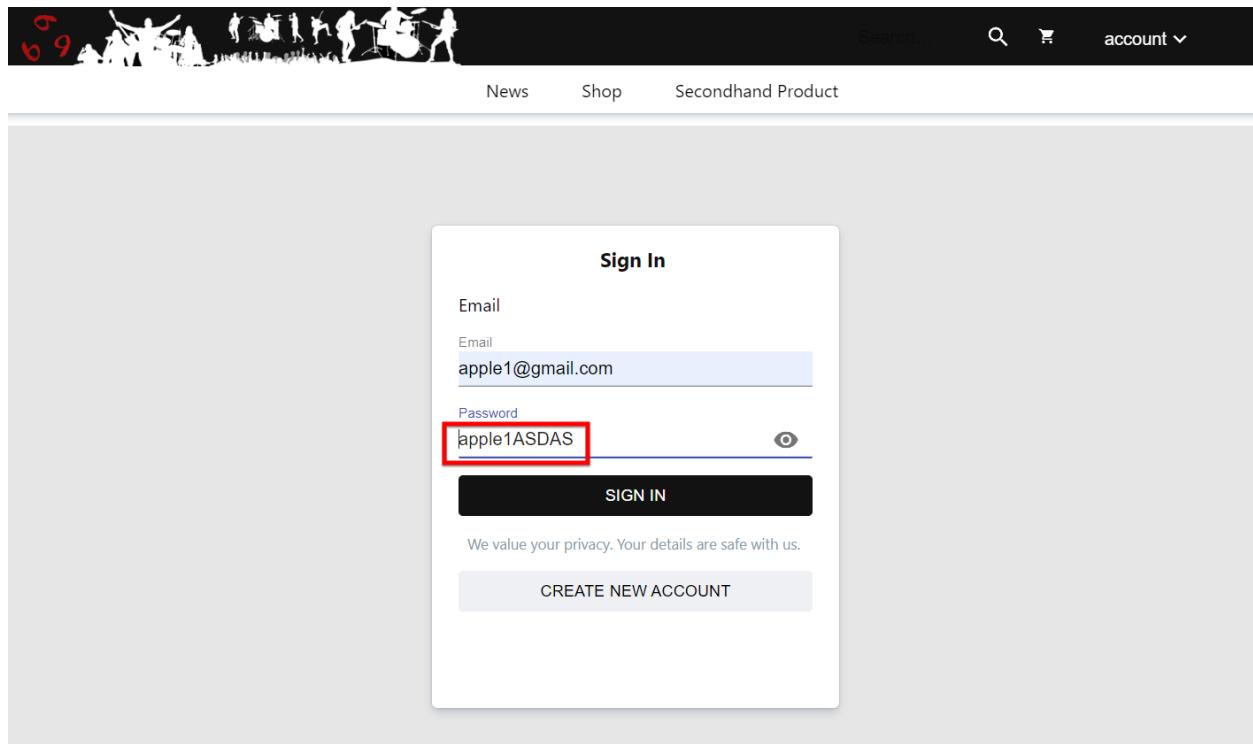


Figure 18 Test Case- Sign Up 5

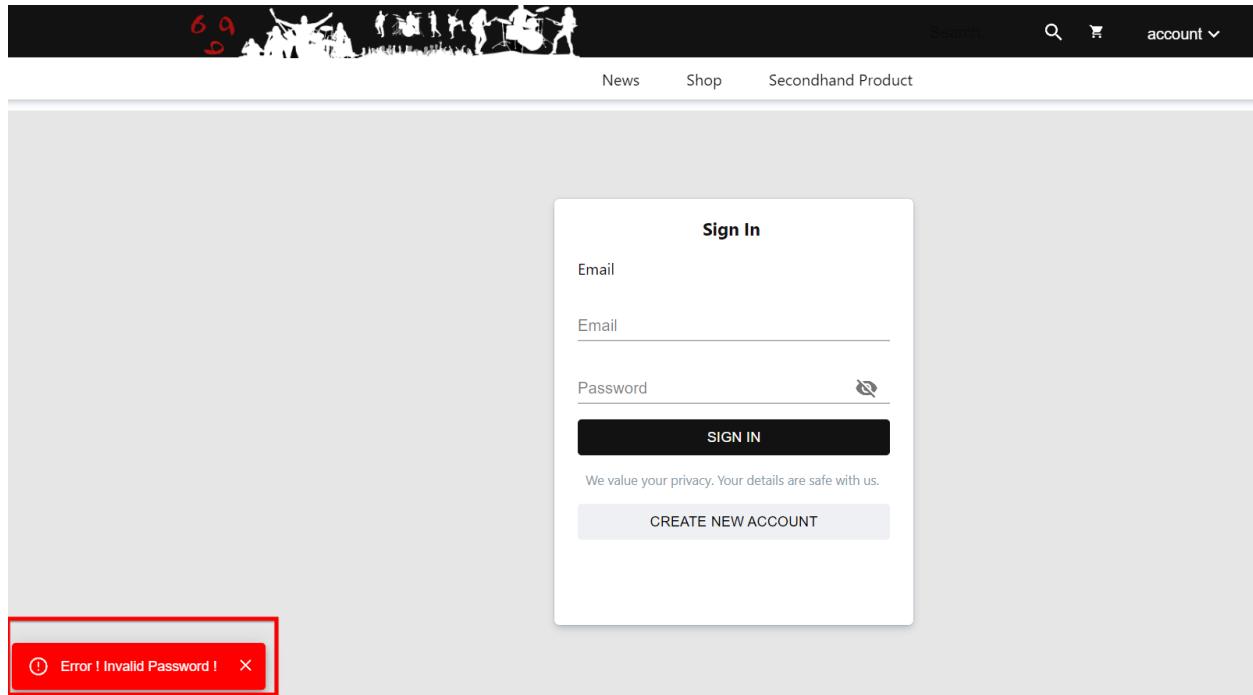


Figure 19 Test Case- Sign Up 6

Create Account

Full Name

Full name

sandesh shrestha

Email

Email

sandesh7xtha@gmail.com

Password

New password

.....

Confirm Password

.....|

SIGN UP

We value your privacy. Your details are safe with us.

Figure 20 Test Case- Sign Up 7

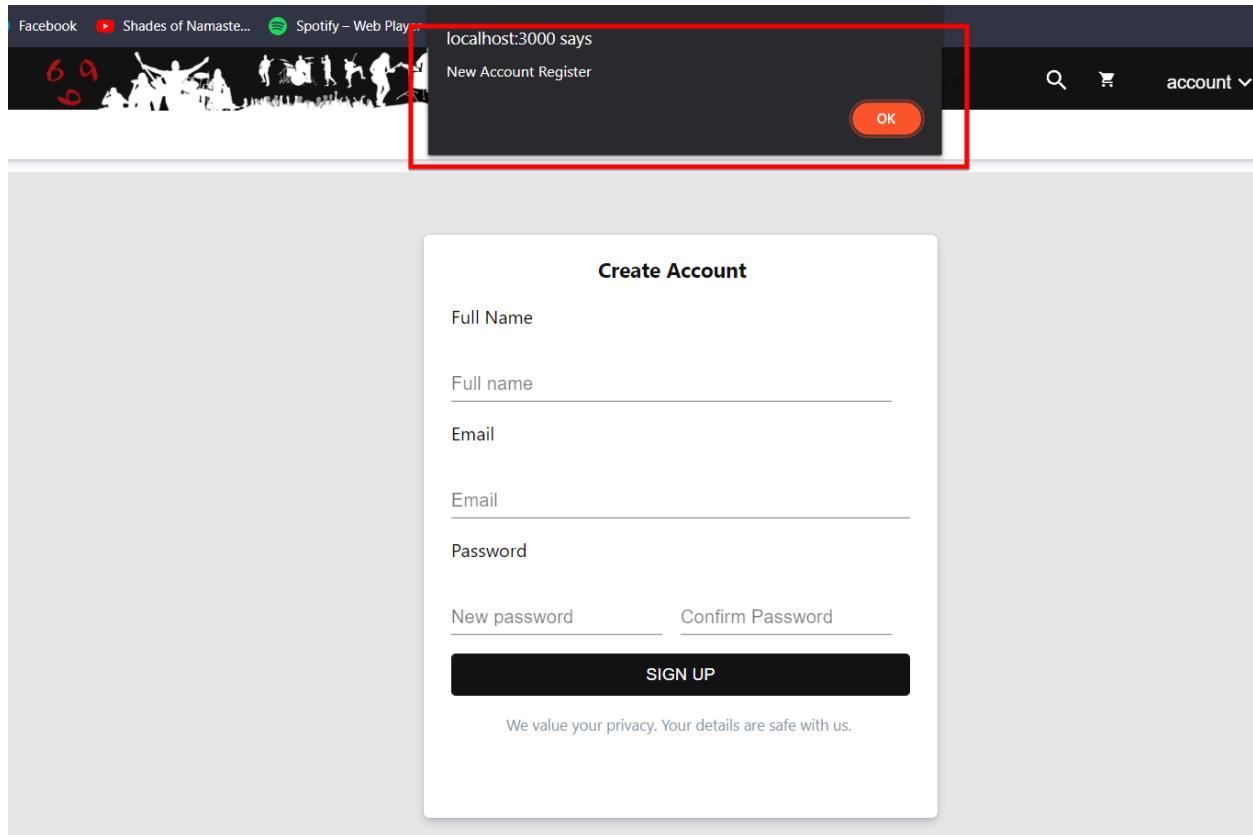


Figure 21 Test Case- Sign Up 8

4.1.2 Test Case- Sign In

objective	To test if the user is able to Sign In which have been already register.
Expected Result	There should be no issues while Sign In account in the system, but it should give an error if the required data is insufficient or incorrectly formatted.
Actual Result	There are no issues while issues while Sign In account in the system, but it gives an error if the required data is insufficient or incorrectly formatted.
Conclusion	Successful.

Table 3 Test Case- Sign In

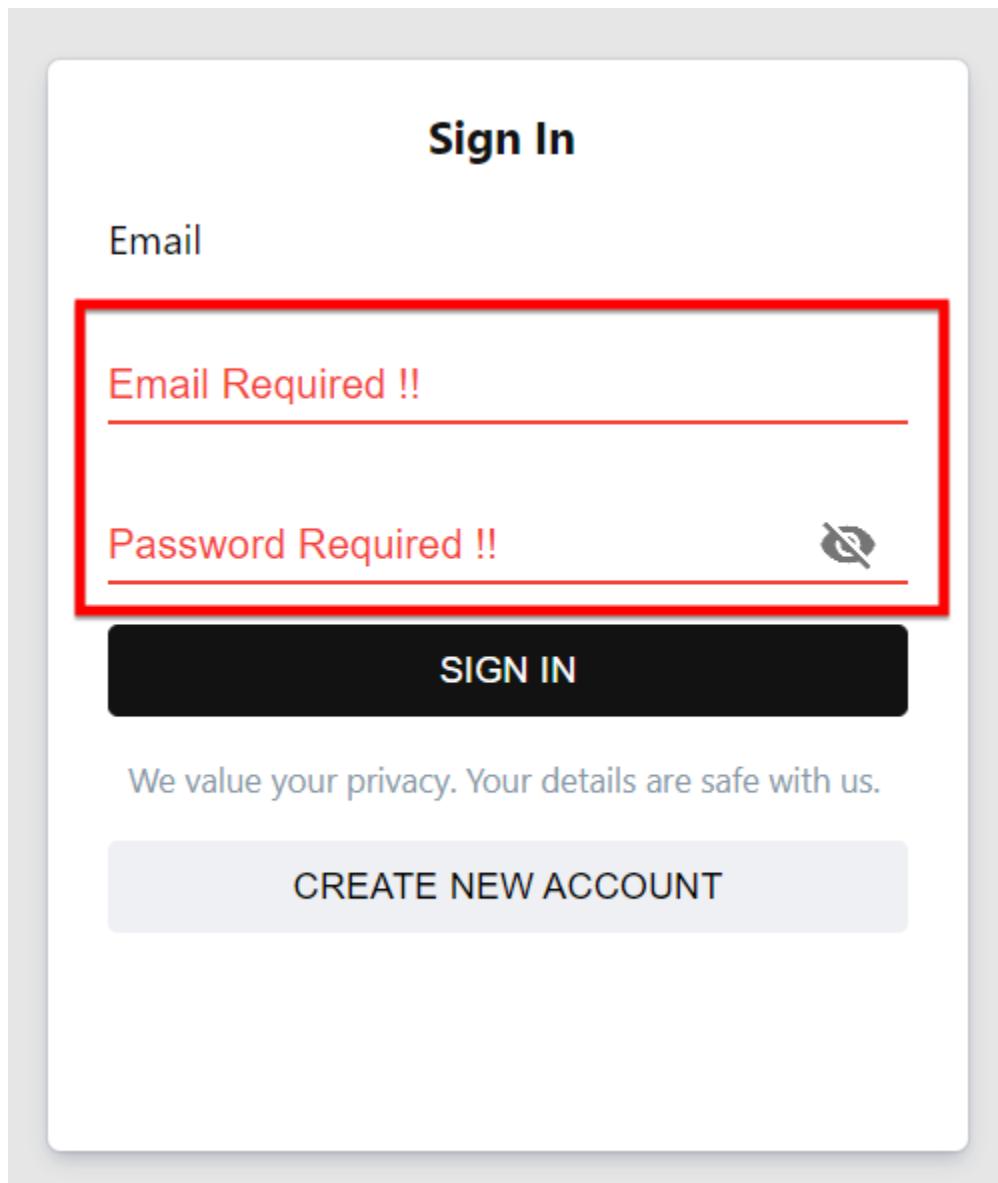


Figure 22 Test Case- Sign In

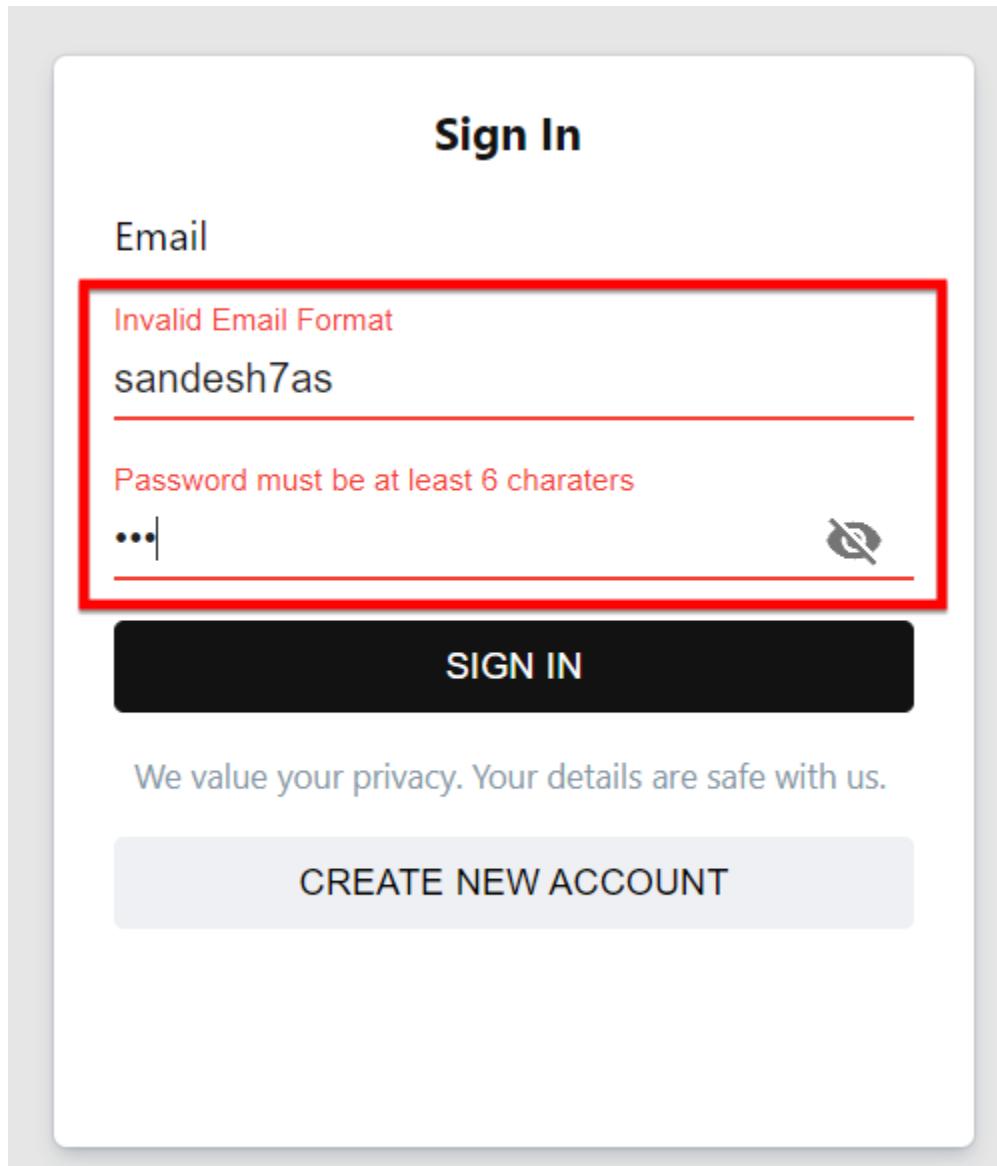


Figure 23 Test Case- Sign In 2

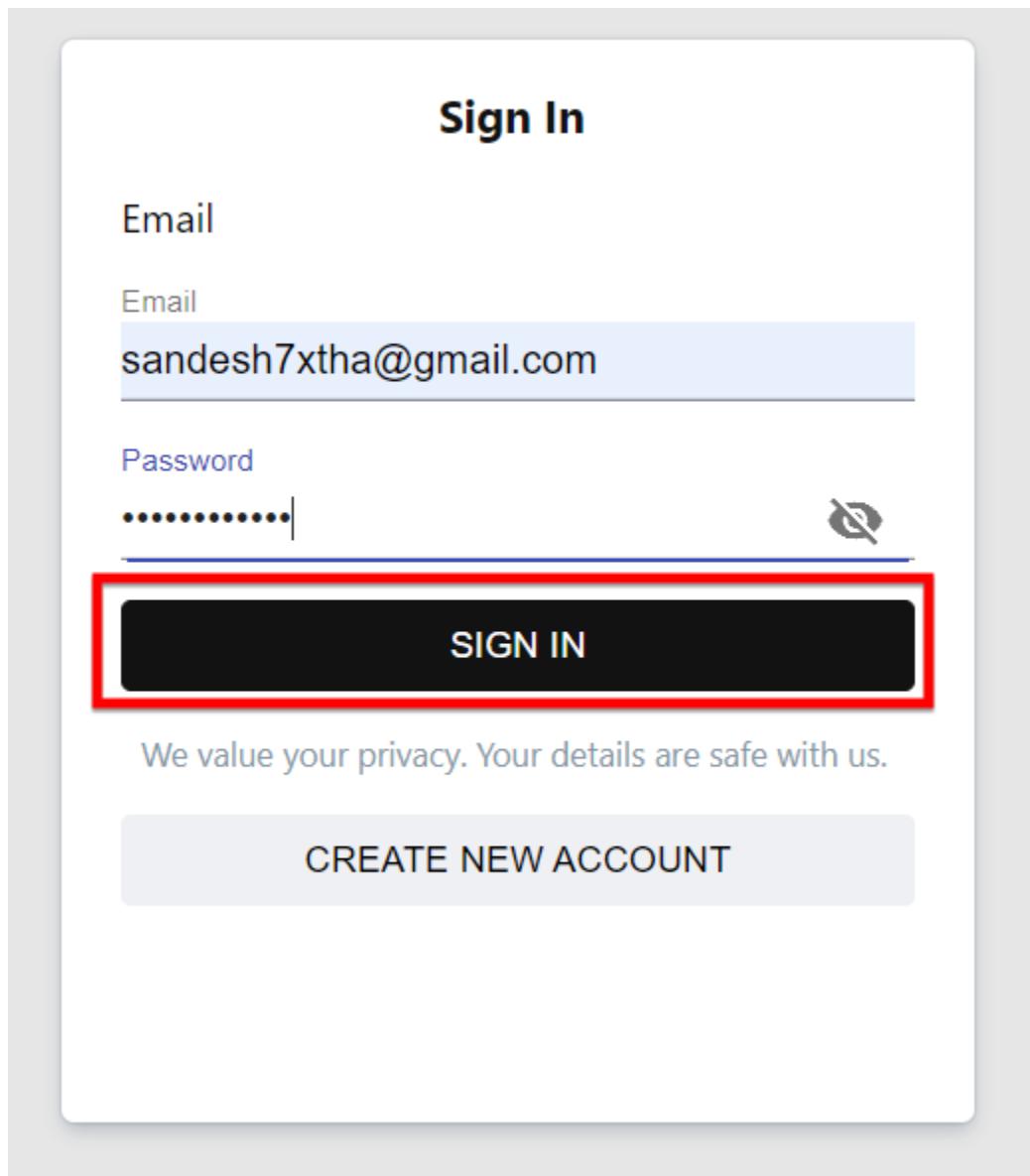


Figure 24 Test Case- Sign In 3



Figure 25 Test Case- Sign In 4

4.1.3 Test Case- Shop and Secondhand Product

objective	To test if the user is able to view product of shop and secondhand Product.
Expected Result	There should be no issues while viewing product in Shop and secondhand Page.
Actual Result	There are no issues while viewing product in Shop and secondhand Page.
Conclusion	Successful.

Table 4 Test Case- Shop and Secondhand Product

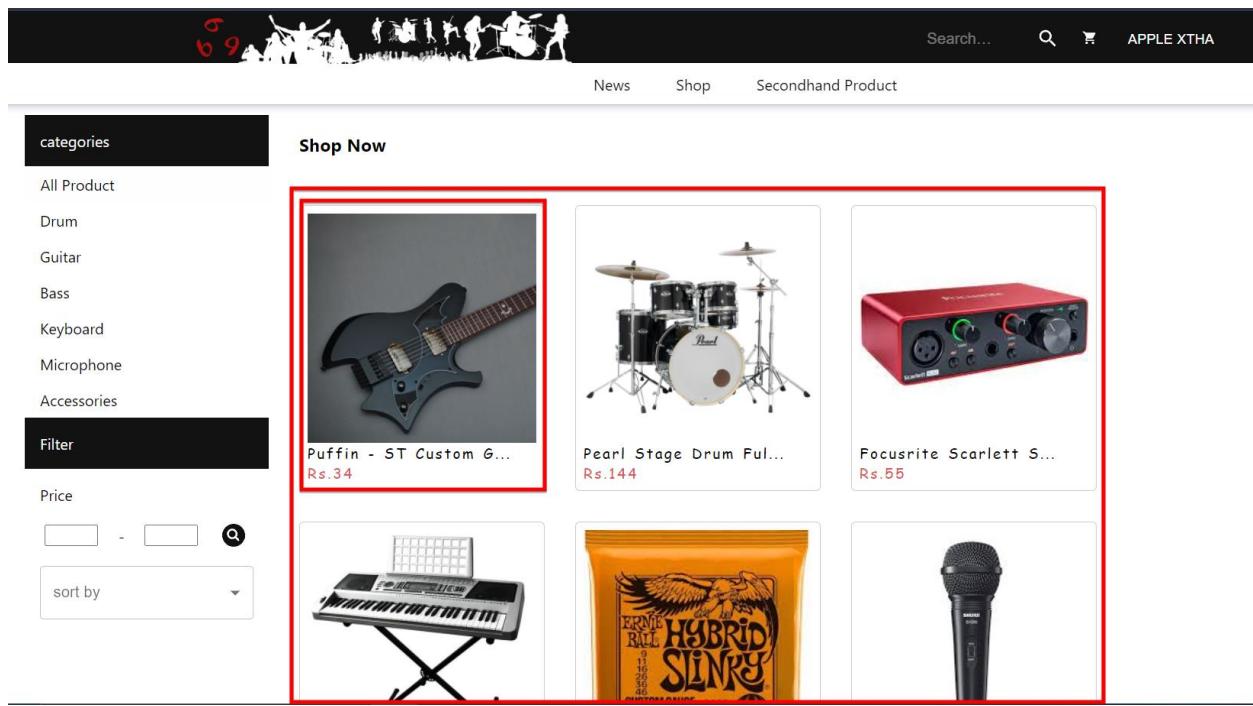


Figure 26 Test Case- Shop and Secondhand Product

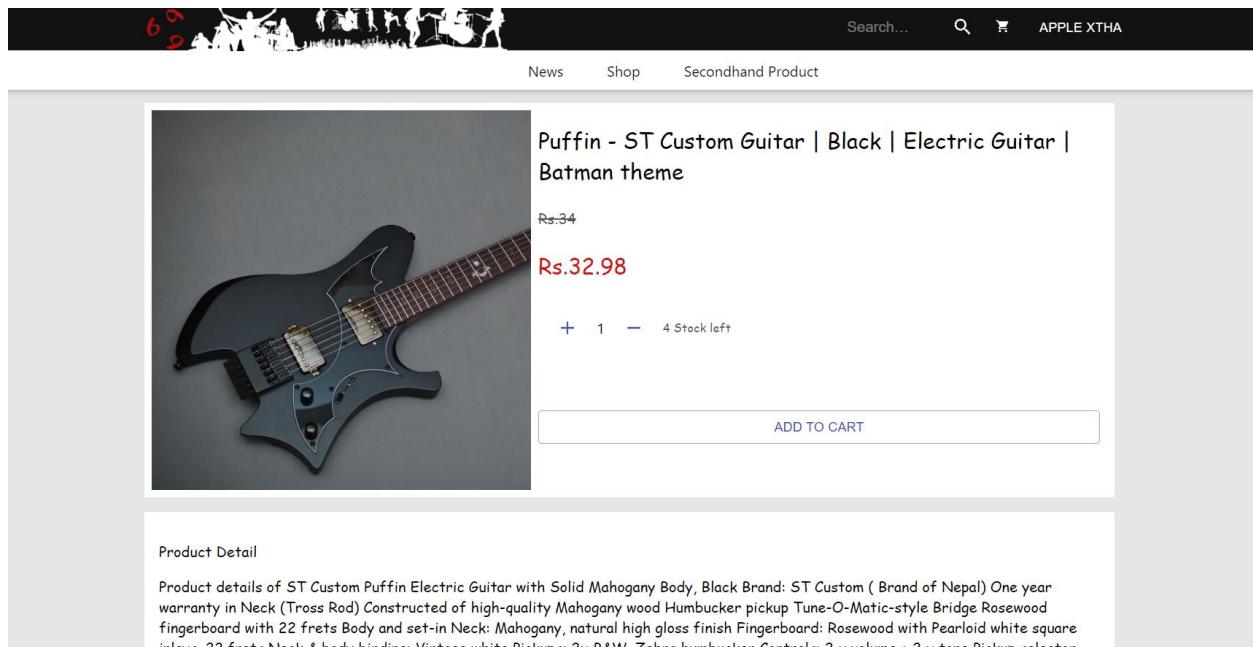


Figure 27 Test Case- Shop and Secondhand Product 2

categories

All Product

Drum

Guitar

Bass

Keyboard

Microphone

Accessories

Filter

Price

sort by

Secondhand Product

ANGEL Guitar | Accos... Rs.13000

Tama | Drum | Brown... Rs.20000

Keyboard | piano 440... Rs.10000

Figure 28 Test Case- Shop and Secondhand Product 3

Search... APPLE XTHA

News Shop Secondhand Product

ANGEL Guitar | Accostic

Price: Rs 13000

Used Duration: 6 month

Contact: 9811111111

Email: sandesh7xtha@gmail.com

Location: Jorpati, Boudha Road, Gokarneshwor, Nepal

Product Detail

Good just as new . i have keep good care of guitar.

Figure 29 Test Case- Shop and Secondhand Product 4

4.1.4 Test Case- Filter and sort Product

objective	To test if the user can filter and sort Product based on category and price.
Expected Result	There should be no problems filtering and sorting products in the Shop or on the secondhand page. Product should be displayed once it has been filtered and sorted.
Actual Result	There is no problems filtering and sorting products in the Shop or on the secondhand page. Product displayed once it has been filtered and sorted.
Conclusion	Successful.

Table 5 Test Case- Filter and sort Product

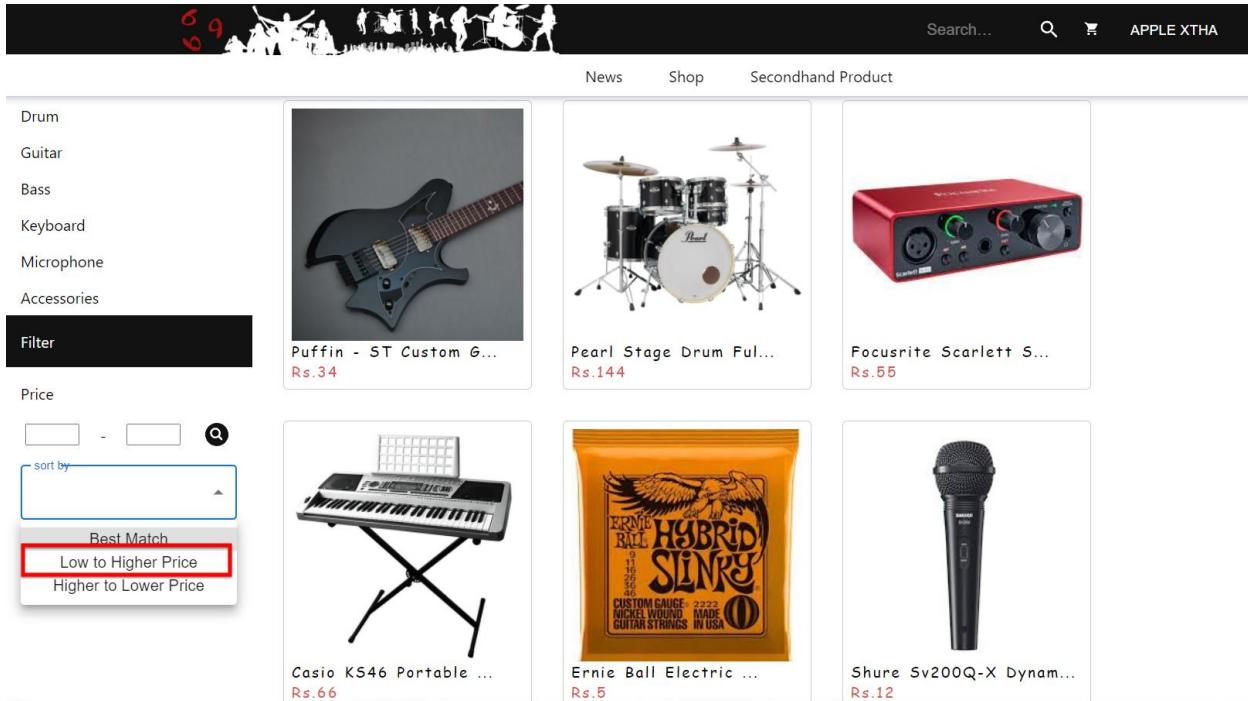


Figure 30 Test Case- Filter and sort Product

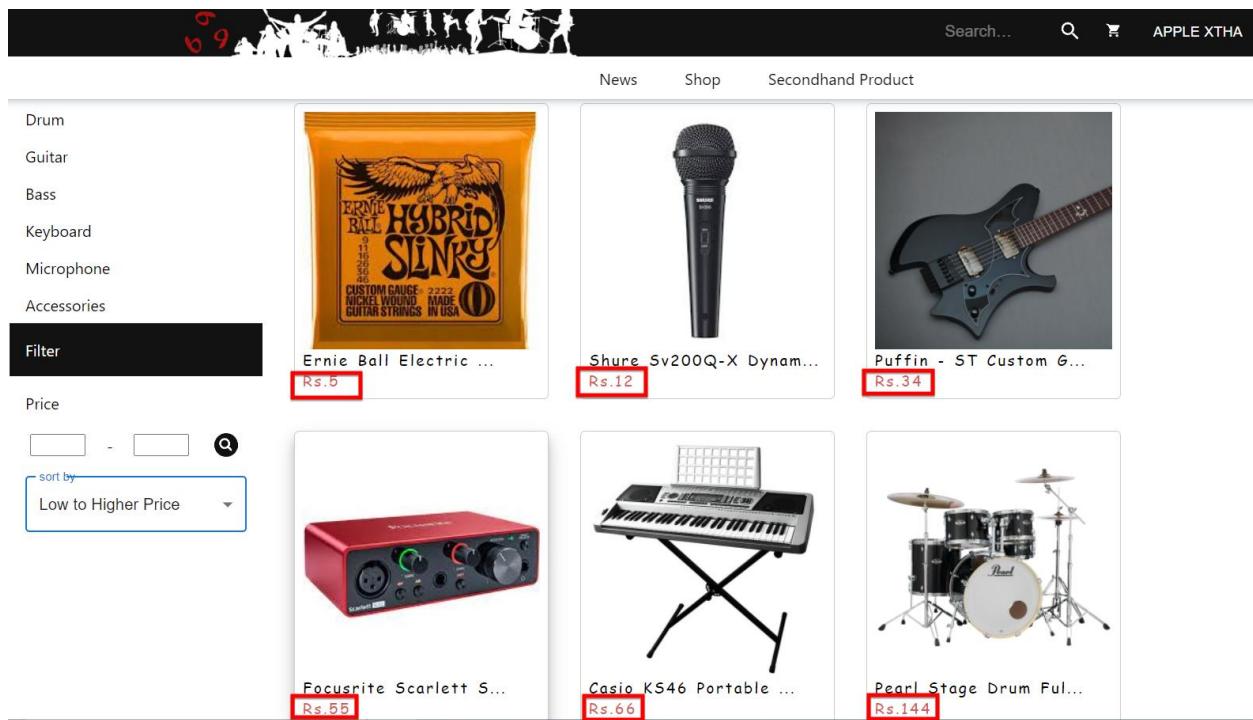


Figure 31 Test Case- Filter and sort Product 2

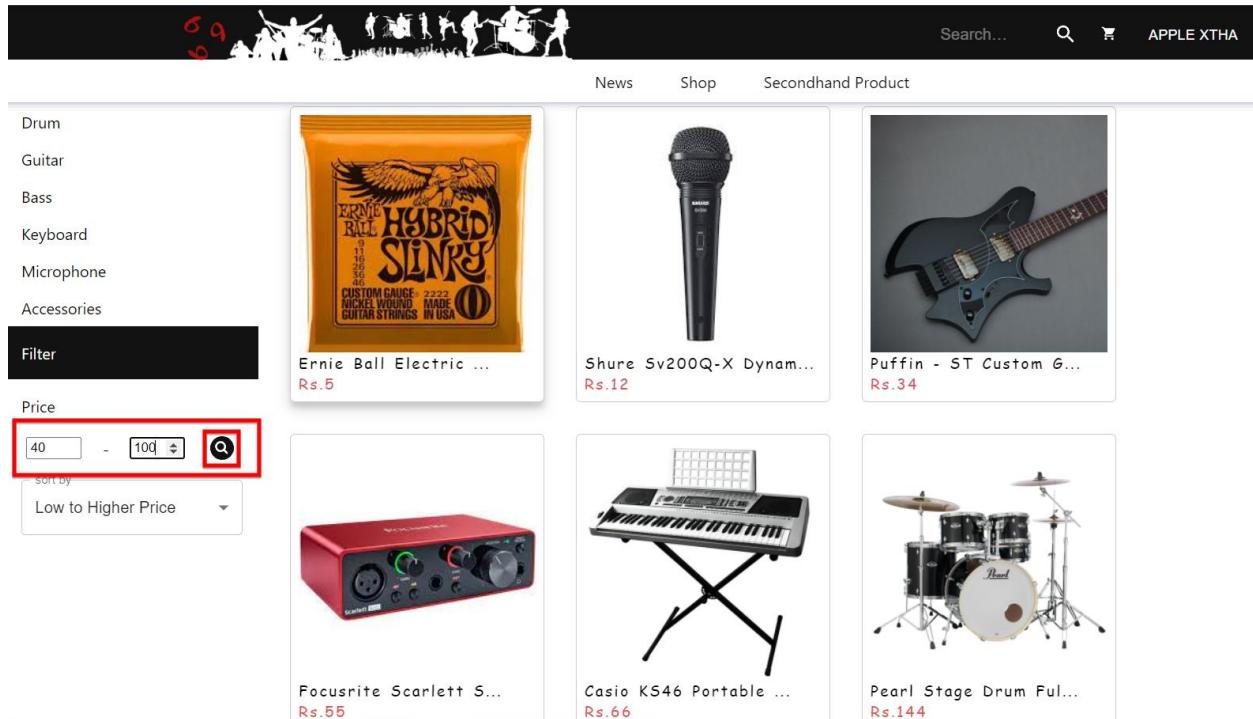


Figure 32 Test Case- Filter and sort Product 3

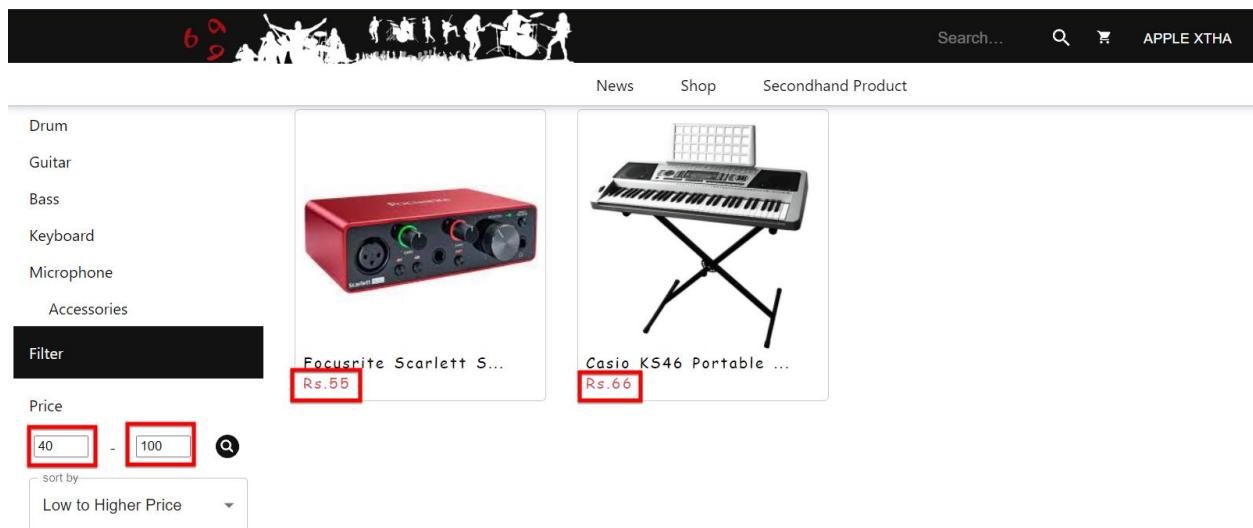


Figure 33 Test Case- Filter and sort Product 4

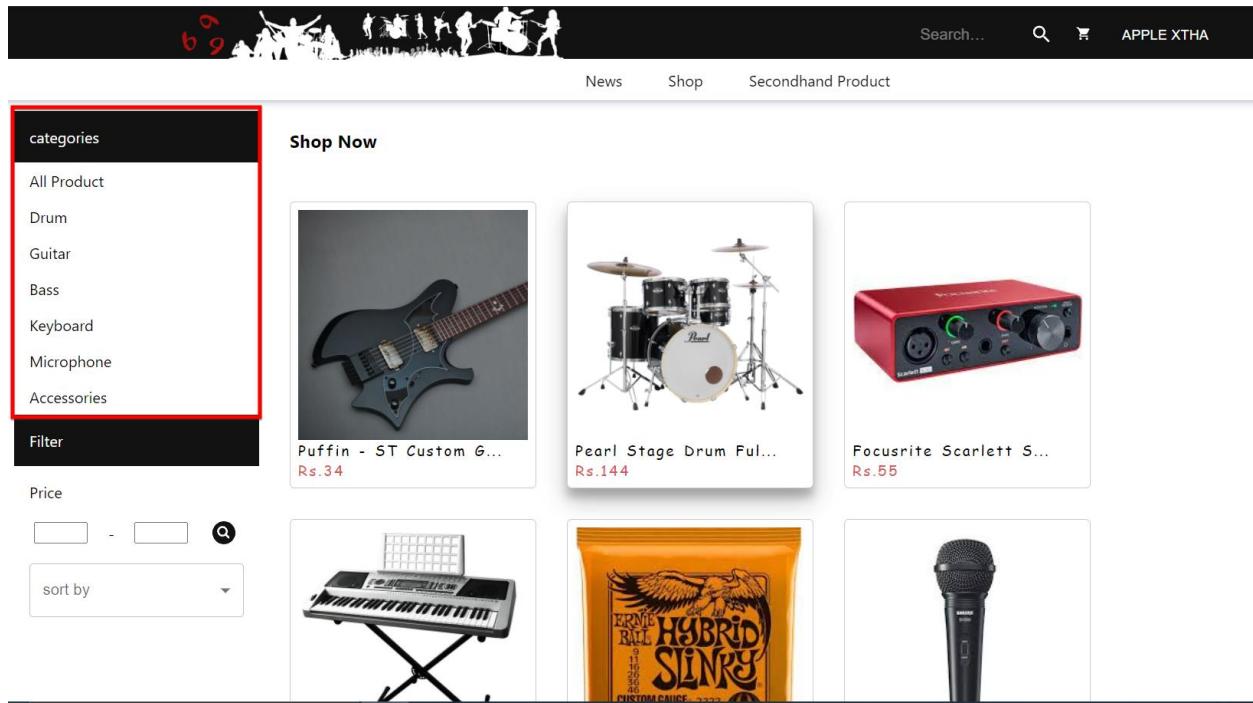


Figure 34 Test Case- Filter and sort Product 5

Figure 35 Test Case- Filter and sort Product 6

Figure 36 Test Case- Filter and sort Product 7

categories

All Product

Drum

Guitar

Bass

Keyboard

Microphone

Accessories

Filter

Secondhand Microphone

Shure UG 10 Micropho...
Rs.10000

Figure 37 Test Case- Filter and sort Product 8

categories

All Product

Drum

Guitar

Bass

Keyboard

Microphone

Accessories

Filter

Secondhand Bass

Yamaha bass guitar |...
Rs.12000

Figure 38 Test Case- Filter and sort Product 9

4.1.5 Test Case- Search Product

objective	To test if the user can search product in shop and secondhand page.
-----------	---

Expected Result	User should be able to search product in shop and secondhand page. Product should be displayed once it has been clicking search icon or press “enter” key
Actual Result	User search product in shop and secondhand page. Product displayed once it has been clicking search icon or press “enter” key
Conclusion	Successful.

Table 6 Test Case- Search Product

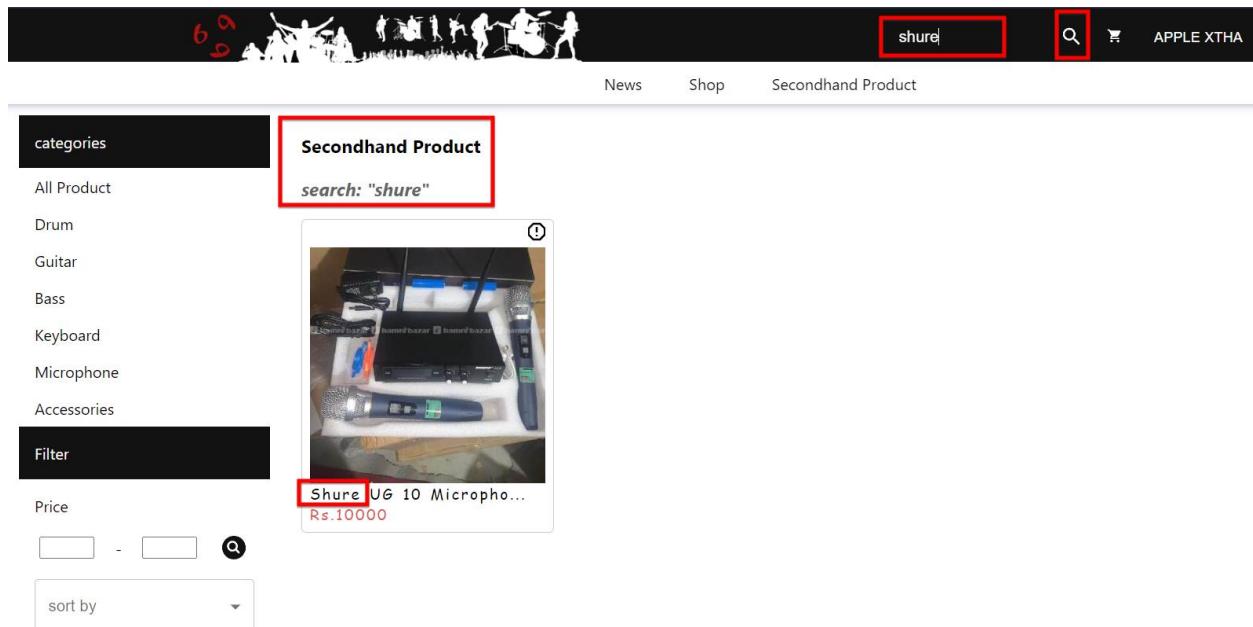


Figure 39 Test Case- Search Product

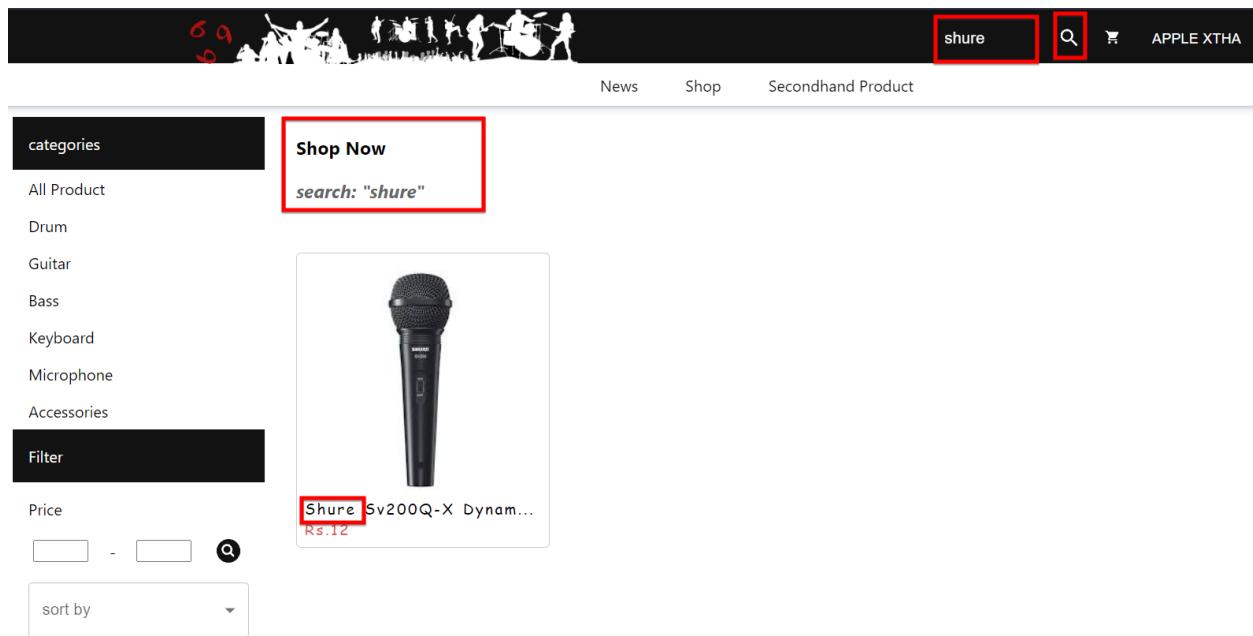


Figure 40 Test Case- Search Product 2

4.1.6 Test Case- Report Product

objective	To test if the user can report product in secondhand page when product is out of musical category.
Expected Result	User should be able to report product in secondhand page. Product should be successfully reported to admin.
Actual Result	User report product in secondhand page. Product successfully reported to admin.
Conclusion	Successful.

Table 7 Test Case- Report Product

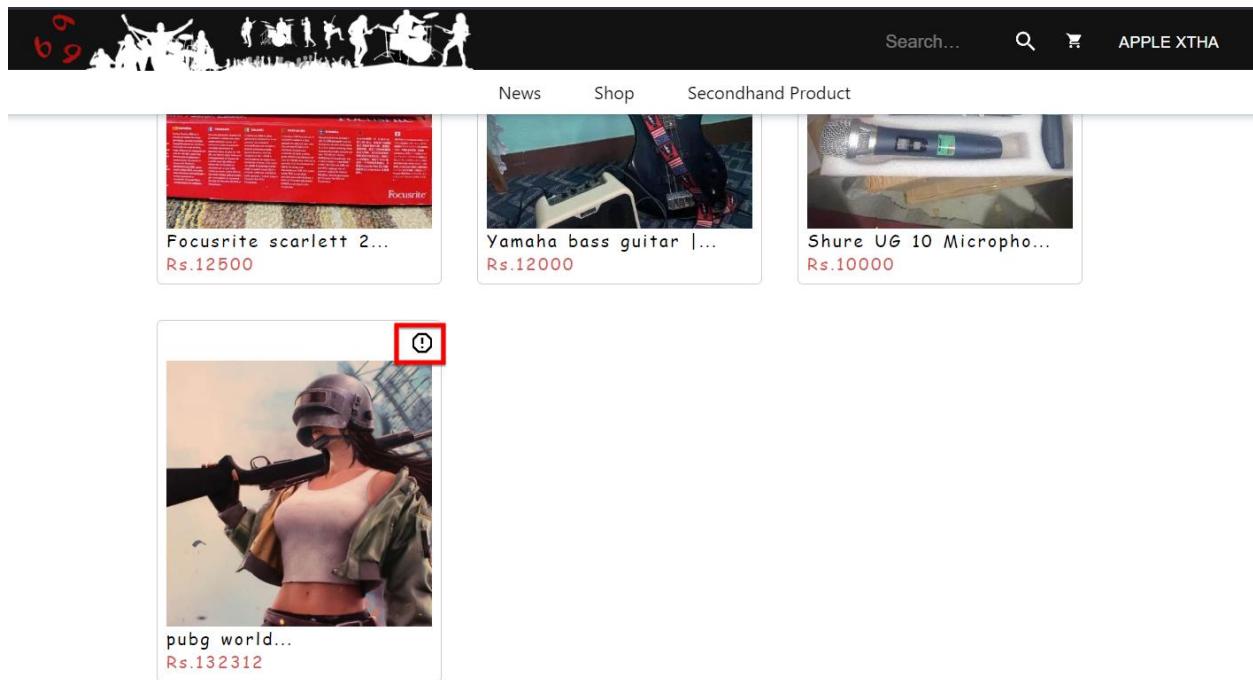


Figure 41 Test Case- Report Product

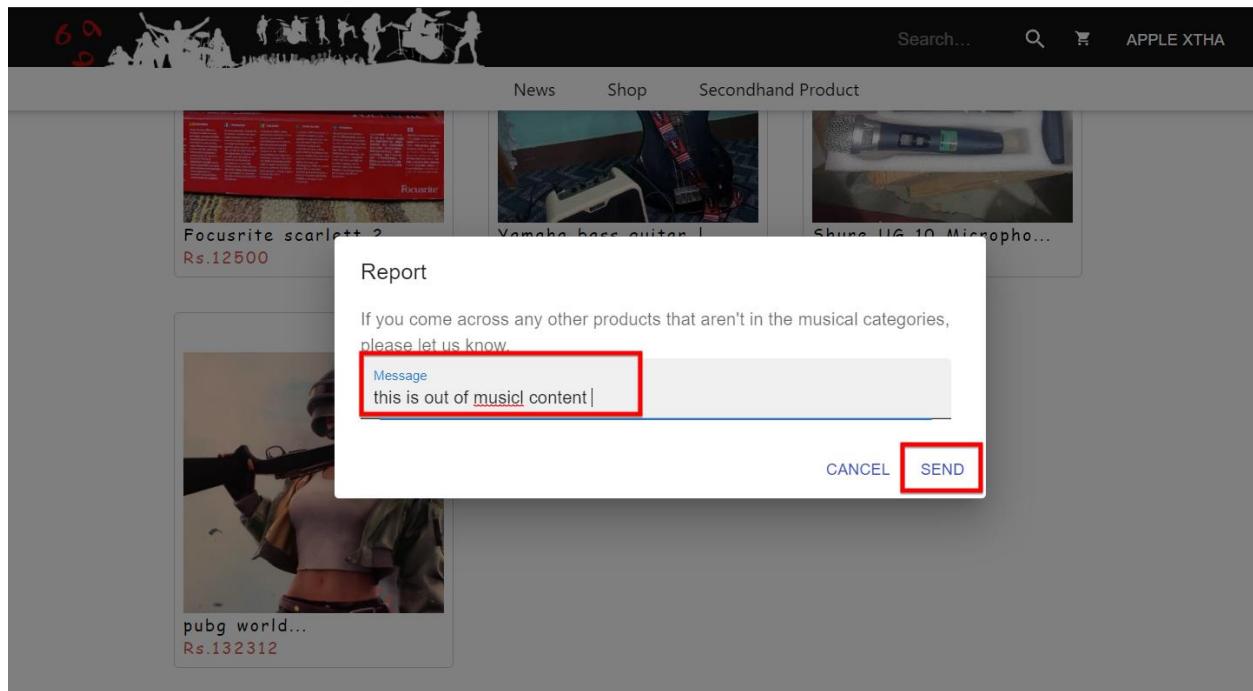


Figure 42 Test Case- Report Product 2

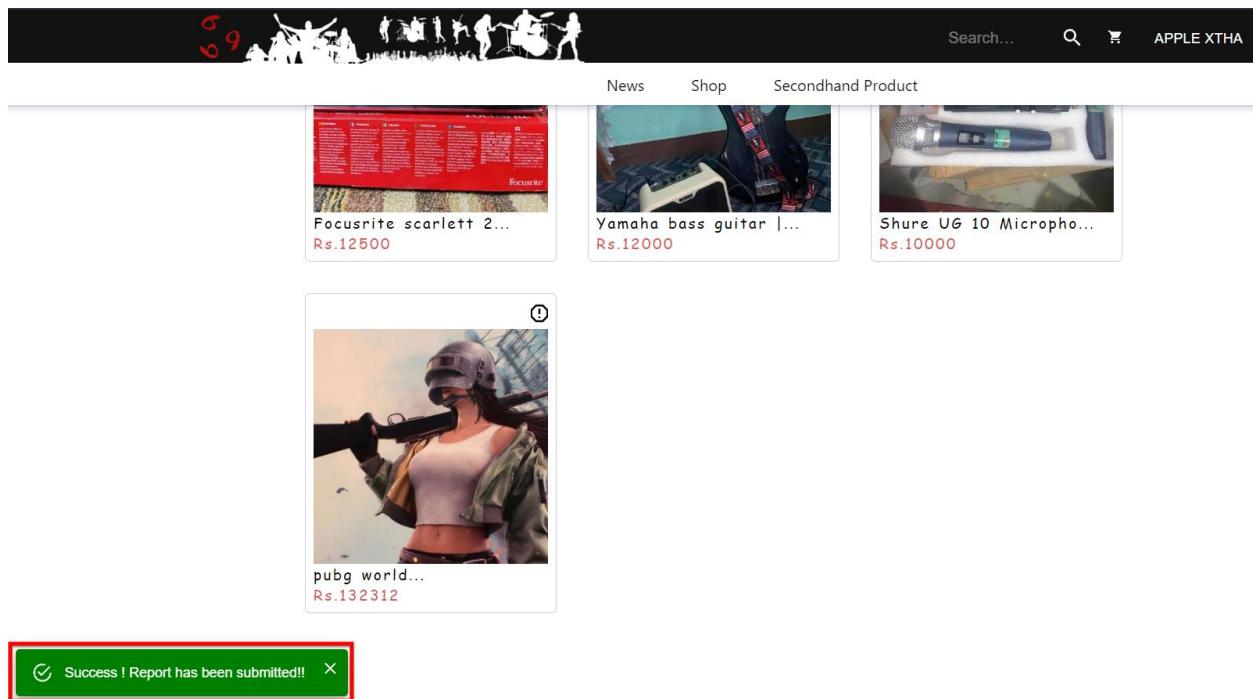


Figure 43 Test Case- Report Product 3

The screenshot shows the '666 MUSIC' admin interface. The left sidebar has links for 'Dashboard', 'Advertisement', 'News', 'Products', 'Secondhand', 'Order Detail', and 'Contacts'. The main area shows a list of products. A product with ID 61 is highlighted with a red box. Below the list, a 'Report' section is shown with a red box around the 'View Report Detail' link. A table of reported entries is displayed, with the second entry (Product ID 61) also highlighted with a red box and the message 'this is out of music content'.

SN	Product ID	user ID	Message	Action
1	60	7	bad	
2	61	7	this is out of music content	

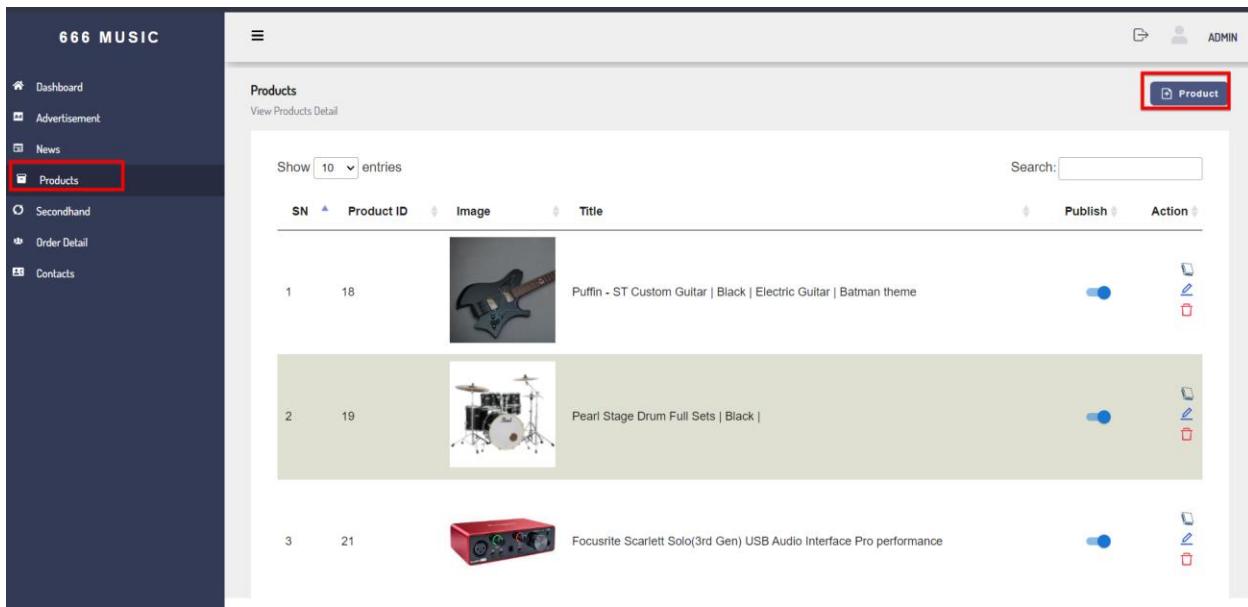
Figure 44 Test Case- Report Product 4

4.1.7 Test Case- Adding Product

objective	To test if the admin can add product in shop section and user can add product in secondhand Section.
Expected Result	Admin should be able to add product in shop section and user should be able to add product in secondhand section.
Actual Result	Admin add product in shop section and user add product in secondhand section successfully.
Conclusion	Successful.

Table 8 Test Case- Adding Product

4.1.7.1 Admin in Shop Section



666 MUSIC

Dashboard

Advertisement

News

Products

Secondhand

Order Detail

Contacts

Products

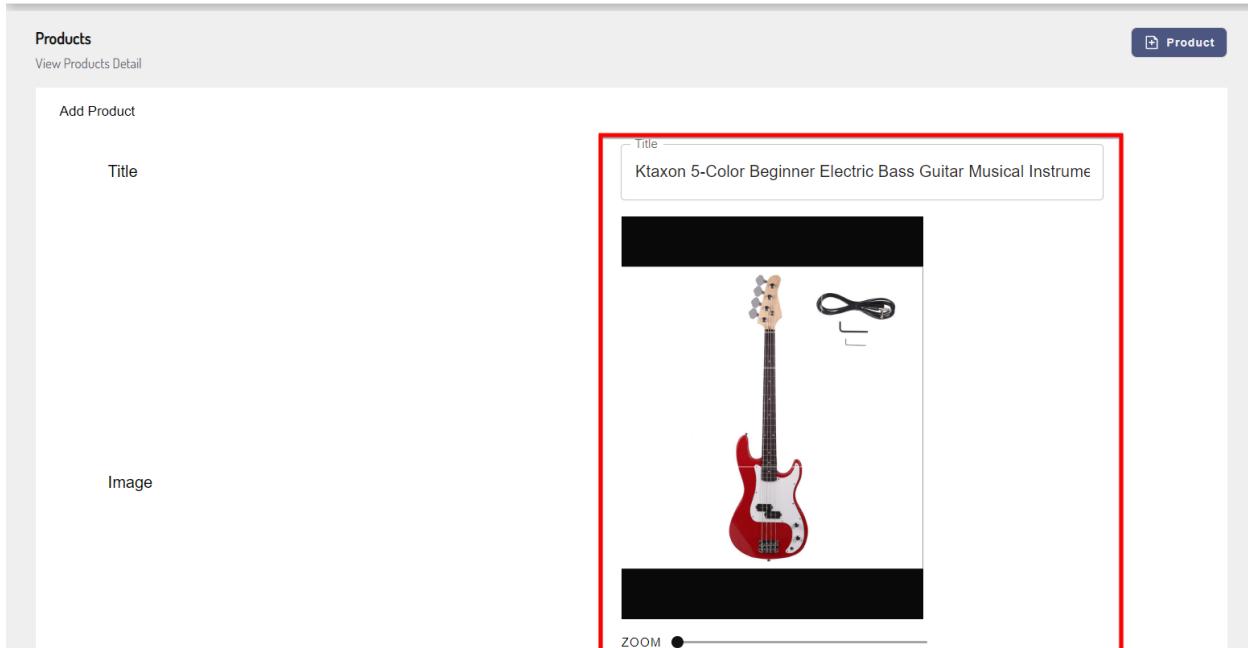
View Products Detail

Show 10 entries

Search:

SN	Product ID	Image	Title	Publish	Action
1	18		Puffin - ST Custom Guitar Black Electric Guitar Batman theme	<input checked="" type="checkbox"/>	 
2	19		Pearl Stage Drum Full Sets Black	<input checked="" type="checkbox"/>	 
3	21		Focusrite Scarlett Solo(3rd Gen) USB Audio Interface Pro performance	<input checked="" type="checkbox"/>	 

Figure 45 Test Case- Adding Product in Admin section shop section



Products

View Products Detail

Add Product

Title

Ktaxon 5-Color Beginner Electric Bass Guitar Musical Instrument

Image

ZOOM

Figure 46 Test Case- Adding Product in Admin section shop section 2

ROTATION ●

UPLOAD CROP AND SAVE

Description

Face Material: Basswood
Back Material: Basswood
Side Panel Material: Basswood

Category

Select Bass

Price

(Rs) Price 120000

Stock

stock 7

Discount

discount 12

ADD

Figure 47 Test Case- Adding Product in Admin section shop section 3

666 MUSIC

Dashboard
Advertisement
News
Products
Secondhand
Order Detail
Contacts

ROTATION ●

UPLOAD CROP AND SAVE

Description

Category

Select

Price

(Rs) Price

Stock

stock

Discount

discount

ADD

Success ! Product Successfully added

Brave
Nexo: Buy BTC & Get 0.5% Back
Invest in Bitcoin or other assets & get up to 0.5% cashback!

Close

Figure 48 Test Case- Adding Product in Admin section shop section 4

666 MUSIC

- Dashboard
- Advertisement
- News
- Products**
- Secondhand
- Order Detail
- Contacts

Serial	Product ID	Image	Product Name	Control Buttons
5	24		Ernie Ball Electric Guitar Strings (11-48)	<input checked="" type="checkbox"/>
6	25		Shure Sv200Q-X Dynamic Vocal Microphone	<input checked="" type="checkbox"/>
7	26		JOYO ZOMBIE Amplifier 20 Watt Hybrid Mini Tube Head Bluetooth BanTamp Series	<input checked="" type="checkbox"/>
8	27		Ktaxon 5-Color Beginner Electric Bass Guitar Musical Instruments Leader	<input checked="" type="checkbox"/>

Showing 1 to 8 of 8 entries

Previous 1 Next

Figure 49 Test Case- Adding Product in Admin section shop section 5

Search... [APPLE XTHA](#)

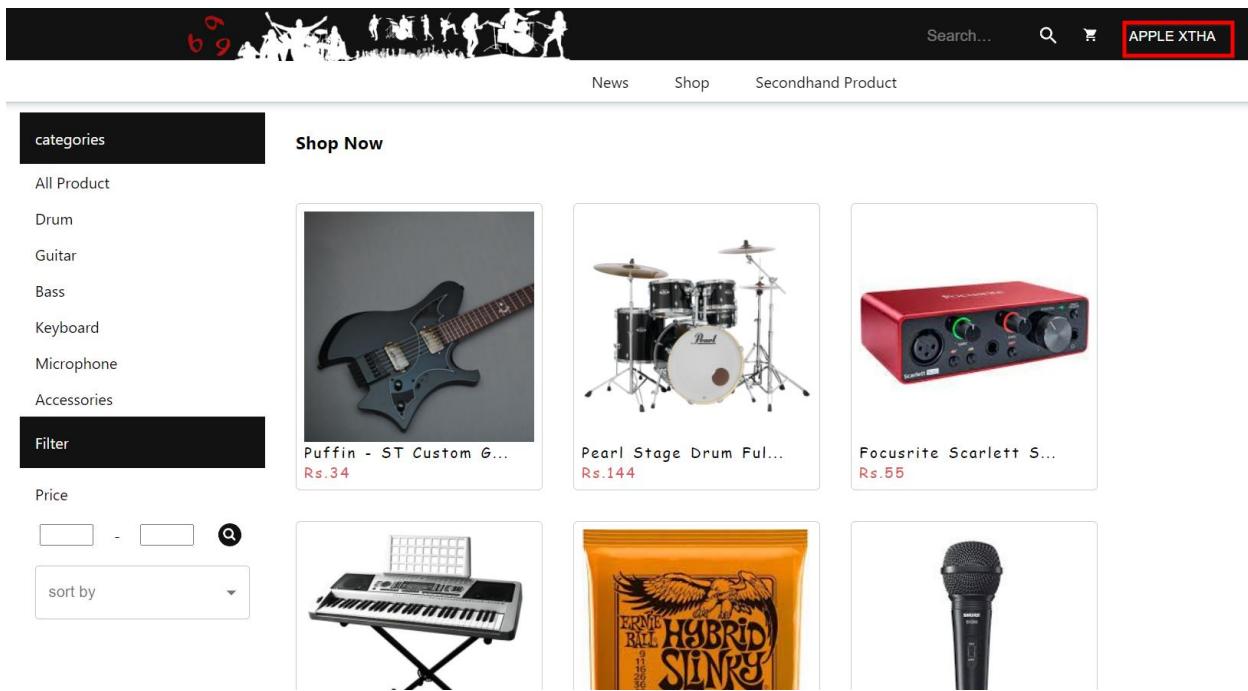
News Shop Secondhand Product

sort by

Casio KS46 Portable ... Rs.66	Ernie Ball Electric ... Rs.5	Shure Sv200Q-X Dynam... Rs.12
JOYO ZOMBIE Amplifie... Rs.35000	Ktaxon 5-Color Begin... Rs.120000	

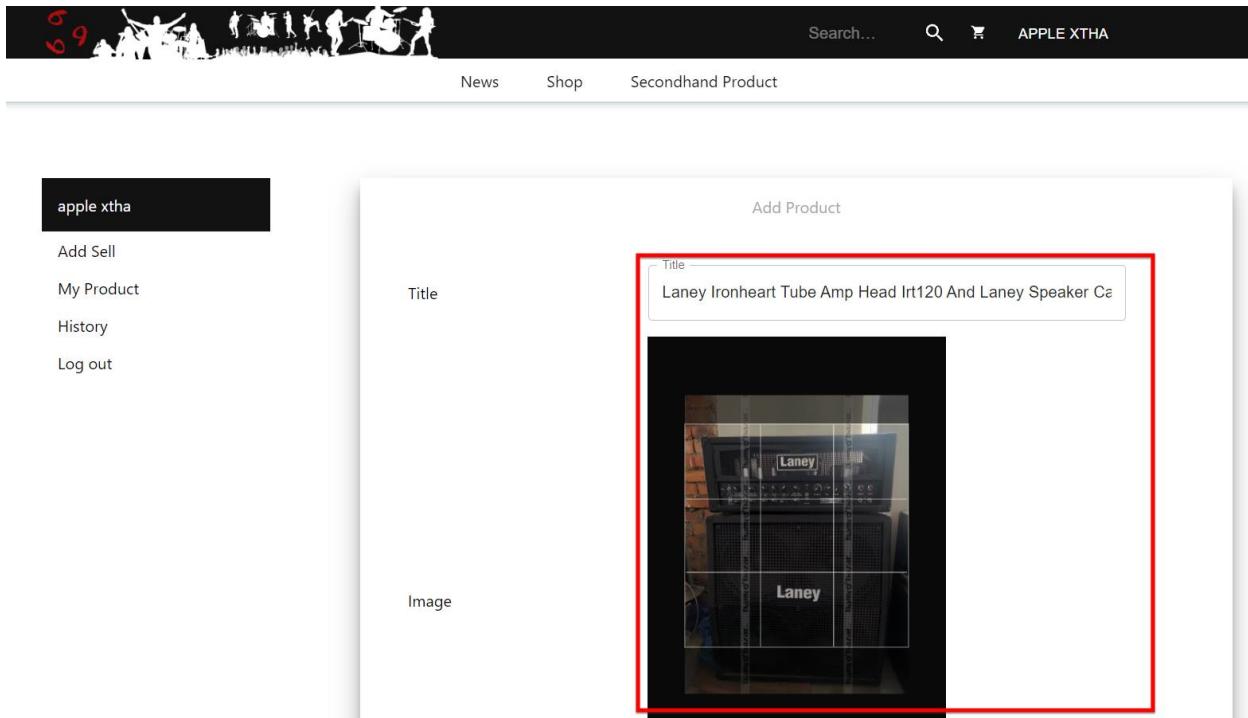
Figure 50 Test Case- Adding Product in Admin section shop section 6

4.1.7.2 User Section in Secondhand Section



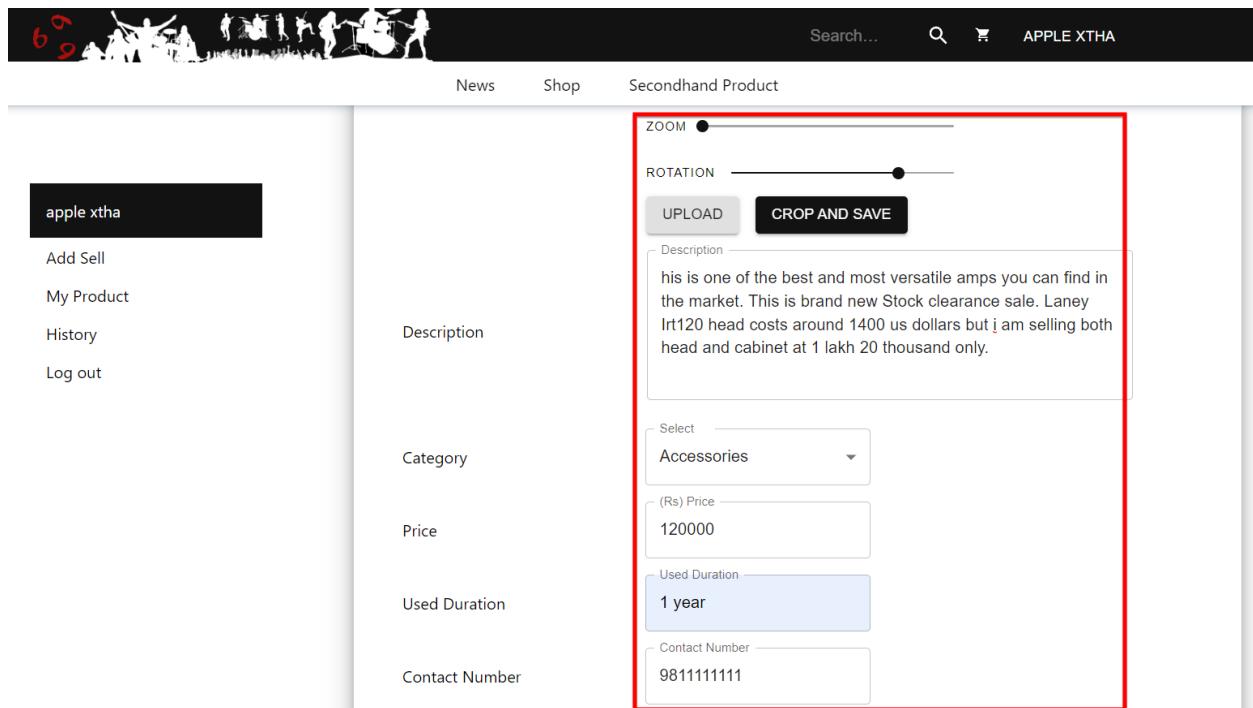
The screenshot shows the 'Secondhand Product' section of a website. At the top, there is a navigation bar with a logo, a search bar, and a user icon labeled 'APPLE XTHA'. Below the navigation bar, there are three tabs: 'News', 'Shop', and 'Secondhand Product'. On the left side, there is a sidebar with a 'categories' section containing links for 'All Product', 'Drum', 'Guitar', 'Bass', 'Keyboard', 'Microphone', and 'Accessories'. Below this is a 'Filter' section with a price range input, a 'sort by' dropdown, and a search icon. The main content area displays a grid of products. The first row contains three items: a blue guitar labeled 'Puffin - ST Custom G...', a drum set labeled 'Pearl Stage Drum Ful...', and a red audio interface labeled 'Focusrite Scarlett S...'. The second row contains three items: a keyboard labeled 'Korg PA300', a pack of guitar strings labeled 'ERNIE BALL HYBRID Slinky', and a black microphone labeled 'Shure SM58'.

Figure 51 Test Case- Adding Product by user in secondhand section



The screenshot shows a user profile page for 'apple xtha'. The left sidebar includes links for 'Add Sell', 'My Product', 'History', and 'Log out'. The main content area is titled 'Add Product' and contains a form with a 'Title' field containing the text 'Laney Ironheart Tube Amp Head Irt120 And Laney Speaker C'. Below the title is a large image of a guitar amplifier, which is highlighted with a red box. The background of the page shows a dark banner with a band silhouette and the text '69'.

Figure 52 Test Case- Adding Product by user in secondhand section 2



apple xtha

News Shop Secondhand Product

Add Sell My Product History Log out

Description

Category

Price

Used Duration

Contact Number

ZOOM ROTATION

UPLOAD CROP AND SAVE

Description

his is one of the best and most versatile amps you can find in the market. This is brand new Stock clearance sale. Laney Irt120 head costs around 1400 us dollars but i am selling both head and cabinet at 1 lakh 20 thousand only.

Select

Accessories

(Rs) Price

120000

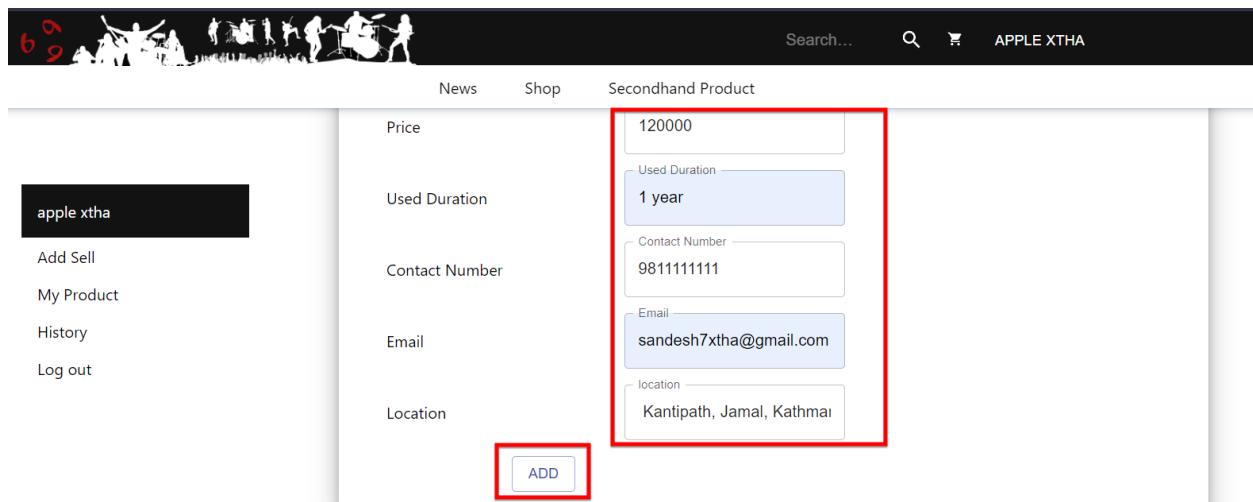
Used Duration

1 year

Contact Number

9811111111

Figure 53 Test Case- Adding Product by user in secondhand section 3



apple xtha

News Shop Secondhand Product

Add Sell My Product History Log out

Price

Used Duration

Contact Number

Email

Location

120000

Used Duration

1 year

Contact Number

9811111111

Email

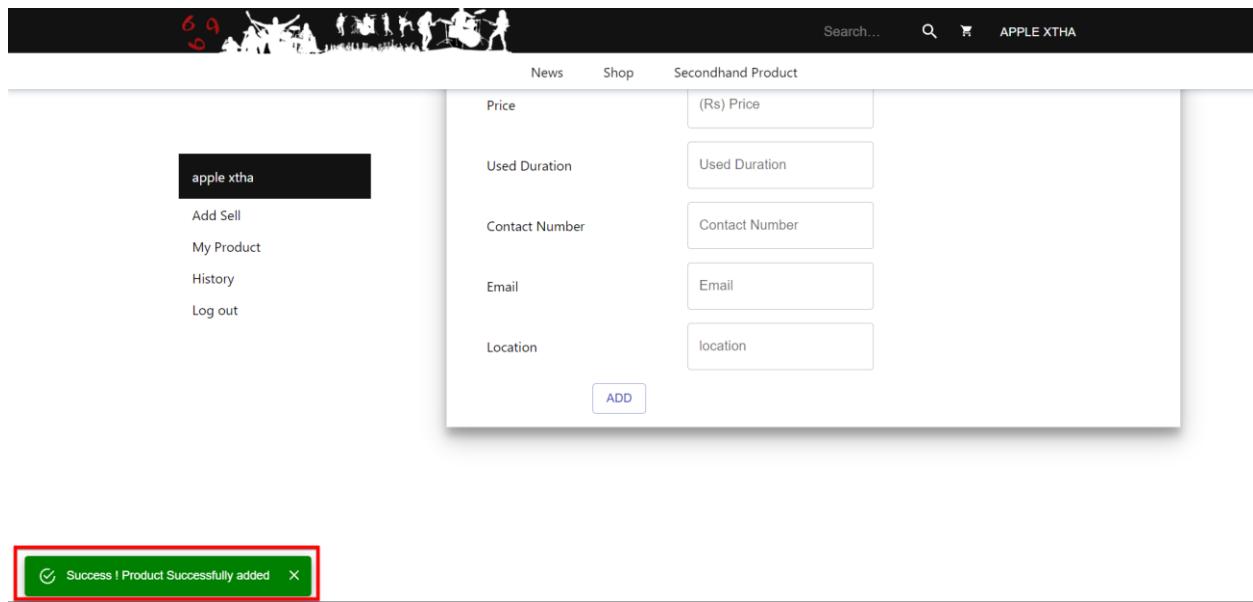
sandesh7xtha@gmail.com

location

Kantipath, Jamal, Kathmai

ADD

Figure 54 Test Case- Adding Product by user in secondhand section 4



apple xtha

News Shop Secondhand Product

Price (Rs) Price

Used Duration Used Duration

Contact Number Contact Number

Email Email

Location location

ADD

Success ! Product Successfully added

Figure 55 Test Case- Adding Product by user in secondhand section 5

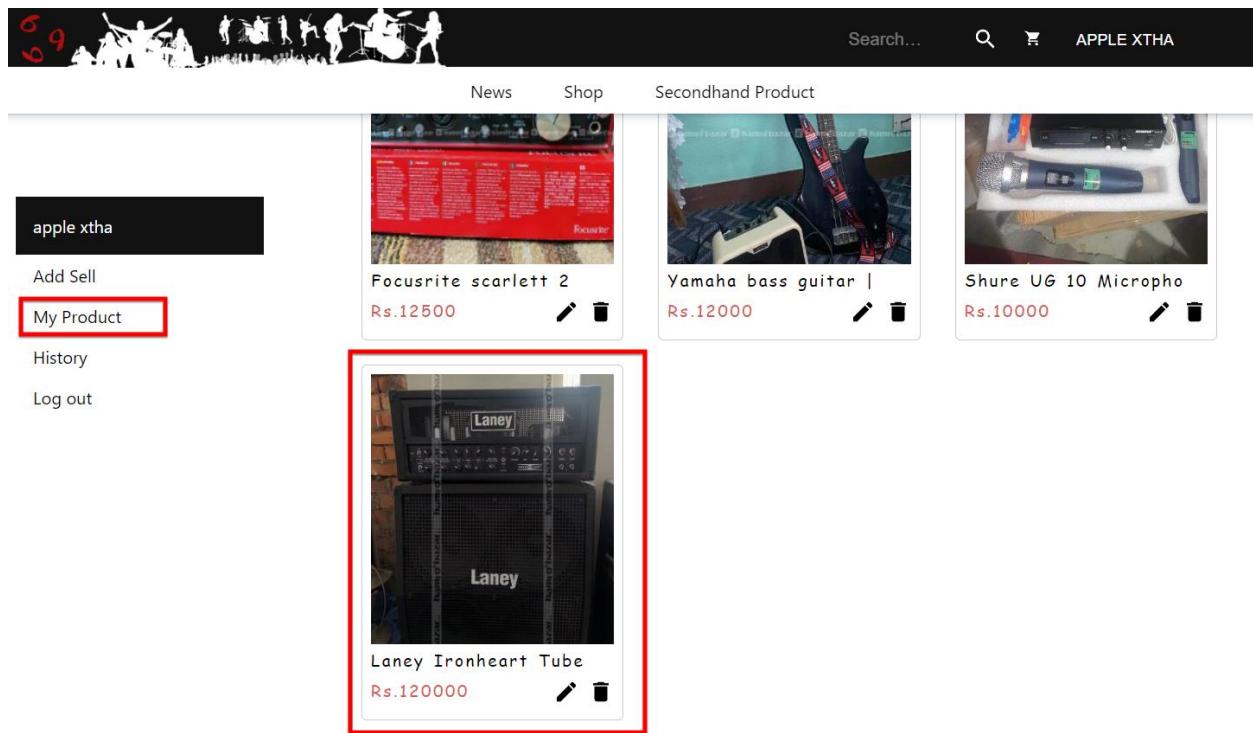


Figure 56 Test Case- Adding Product by user in secondhand section 6

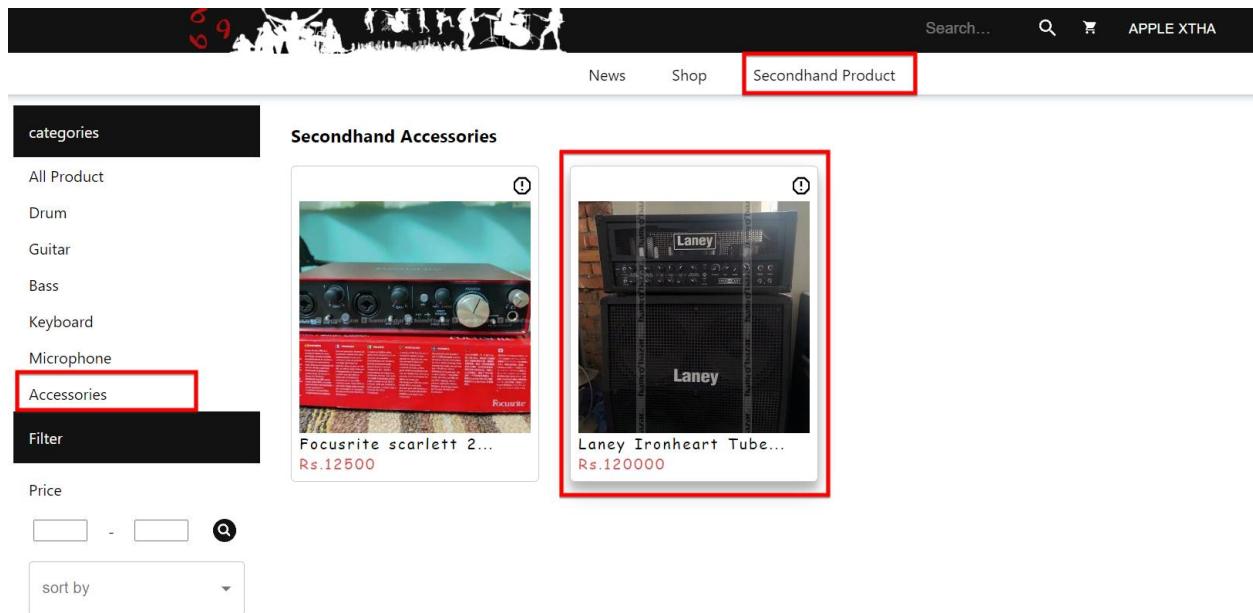


Figure 57 Test Case- Adding Product by user in secondhand section 7

4.1.8 Test Case- Edit and Update Product

objective	To test if the admin can edit and update product in shop section and user can edit and update product in secondhand Section.
Expected Result	Admin should be able to edit and update product in shop section and user should be able to edit and update product in secondhand section.
Actual Result	Admin edit and update product in shop section and user edit and update product in secondhand section successfully.
Conclusion	Successful.

Table 9 Test Case- Edit and Update Product

4.1.8.1 Admin in Shop section

Showing 1 to 8 of 8 entries

Previous 1 Next

Figure 58 Test Case- Edit and Update Product by Admin in Shop section

Showing 1 to 8 of 8 entries

CANCEL UPDATE

Figure 59 Test Case- Edit and Update Product by Admin in Shop section 2

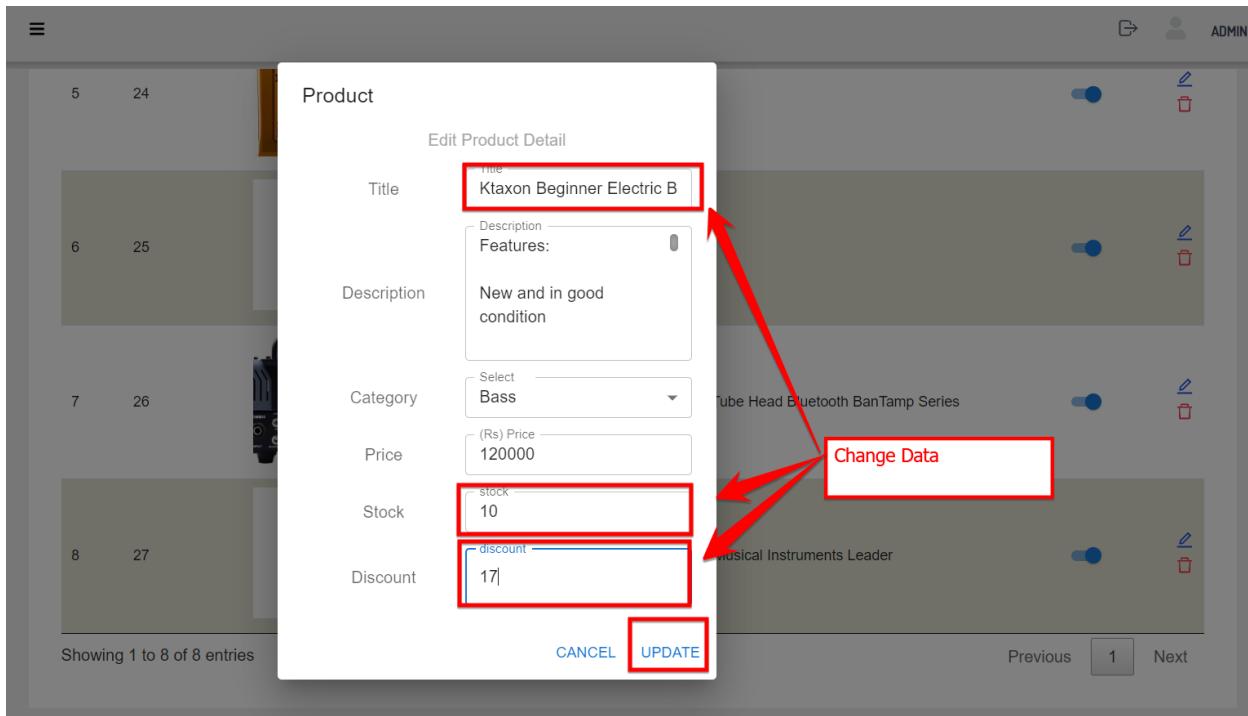


Figure 60 Test Case- Edit and Update Product by Admin in Shop section 3

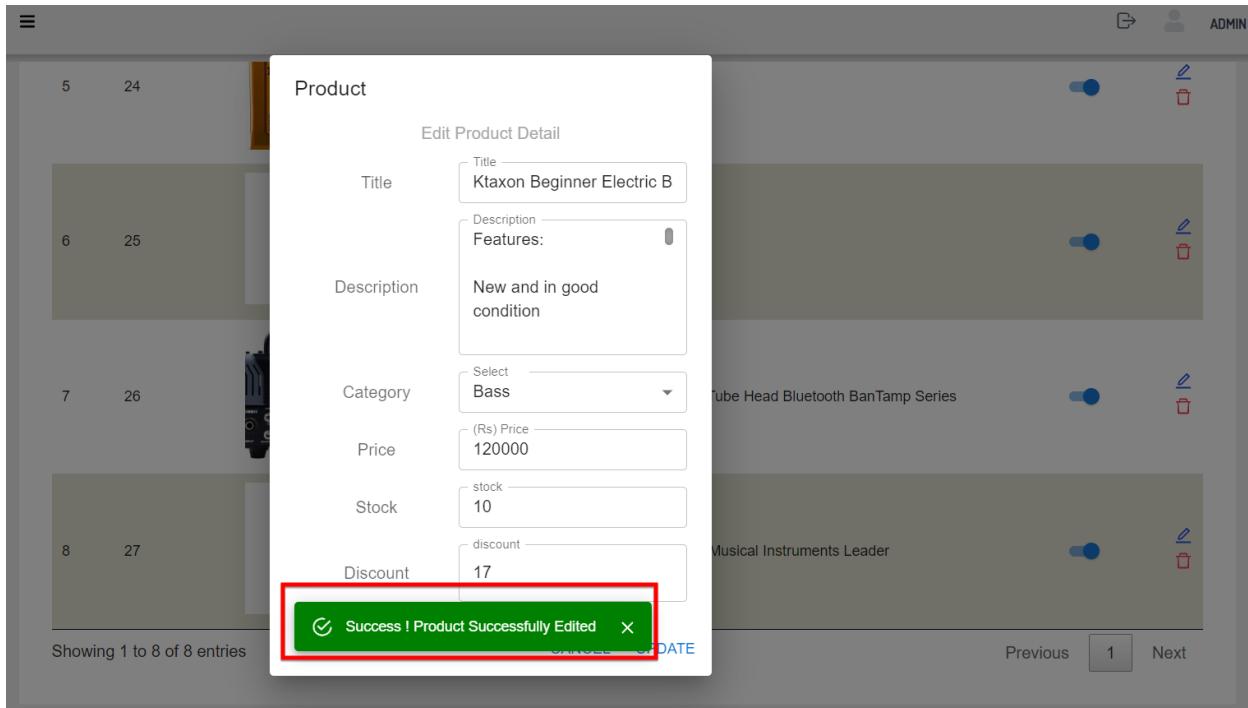


Figure 61 Test Case- Edit and Update Product by Admin in Shop section 4

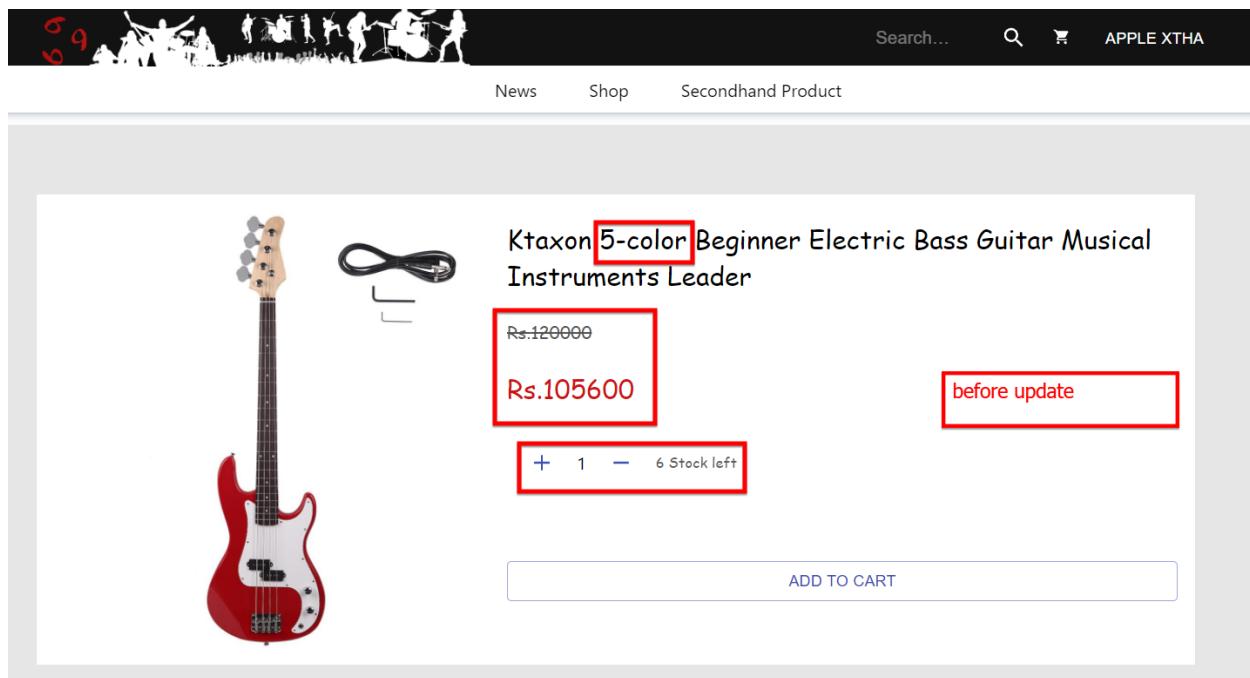


Figure 62 Test Case- Edit and Update Product by Admin in Shop section 5

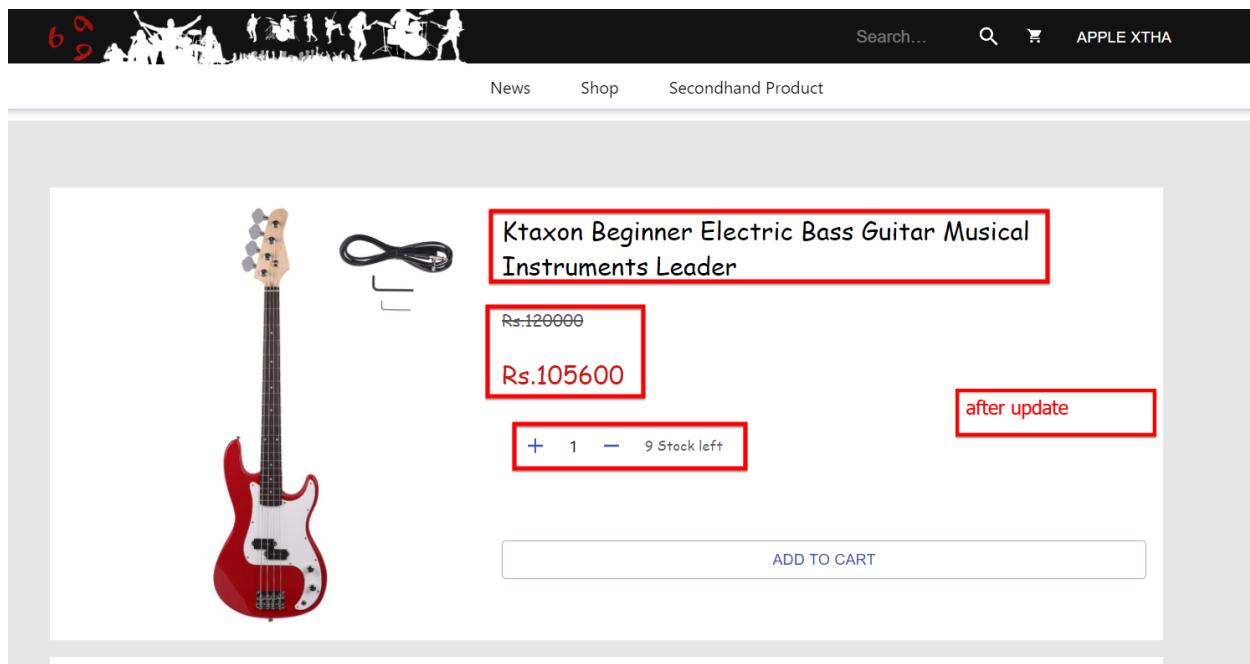


Figure 63 Test Case- Edit and Update Product by Admin in Shop section 6

4.1.8.2 User in Secondhand Section

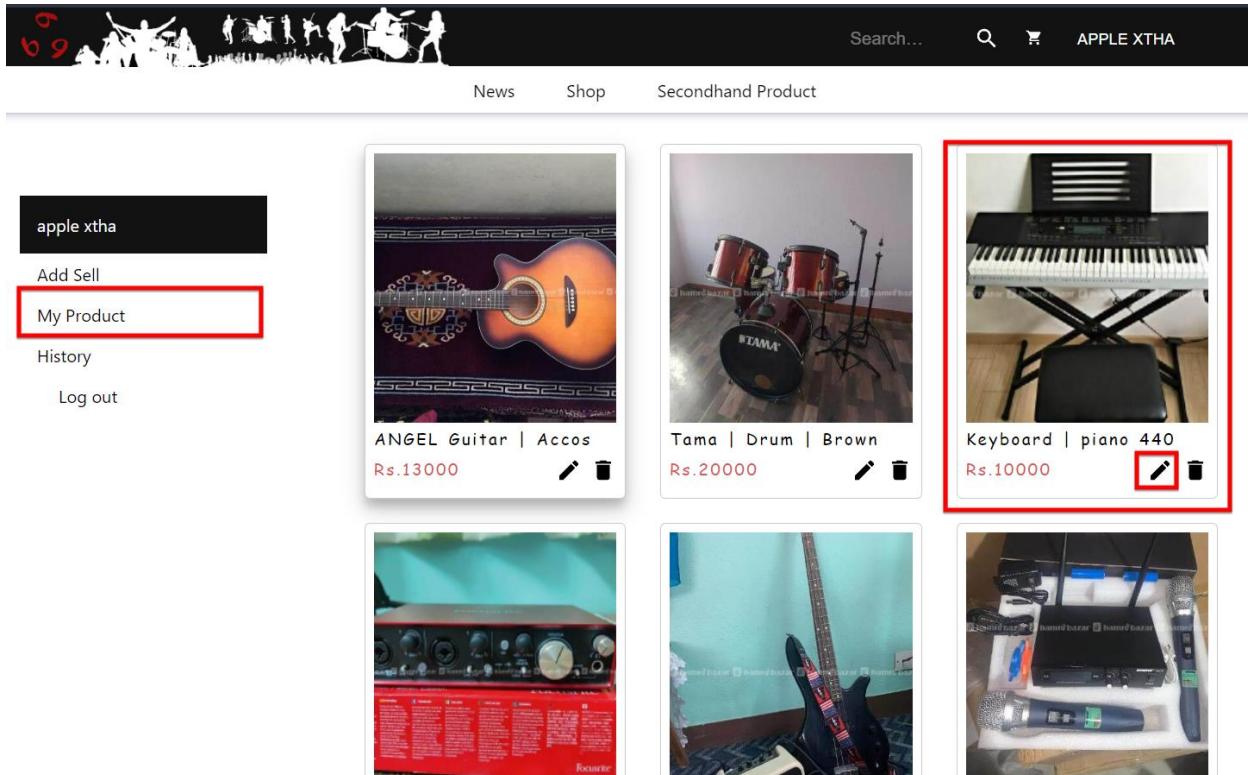


Figure 64 Test Case- Edit and Update Product by user in secondhand section

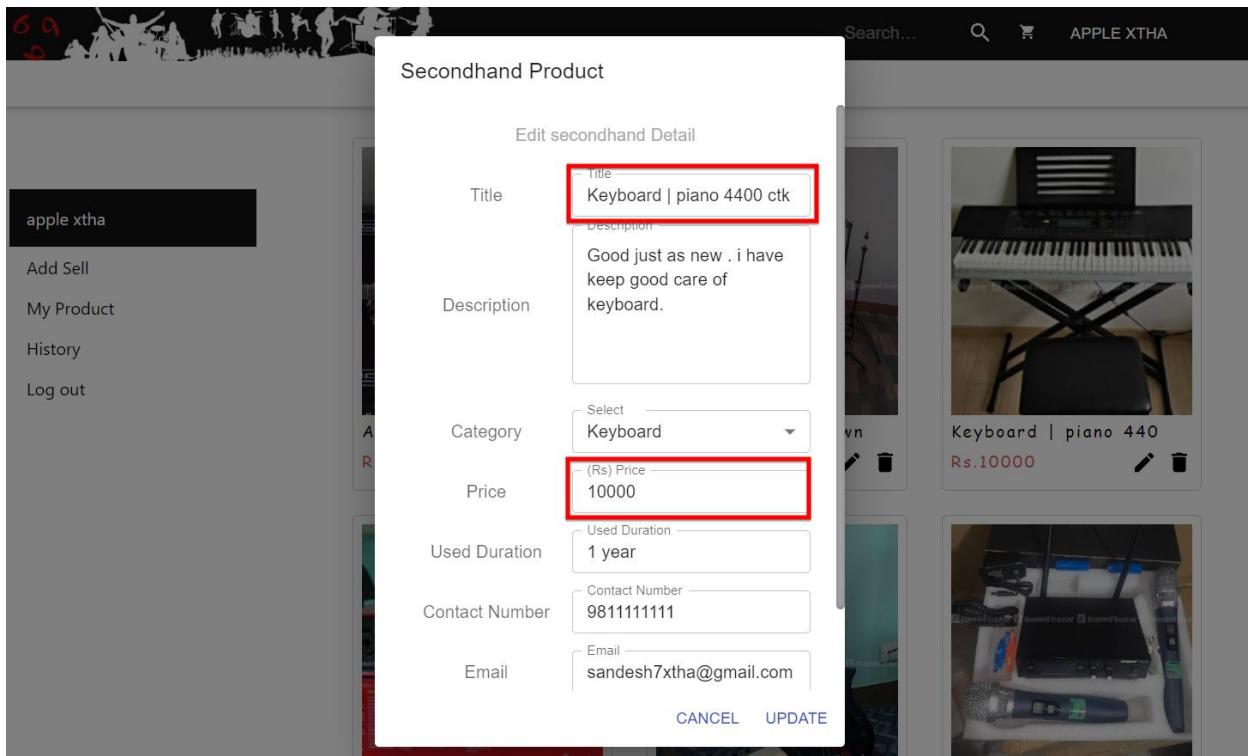


Figure 65 Test Case- Edit and Update Product by user in secondhand section 2

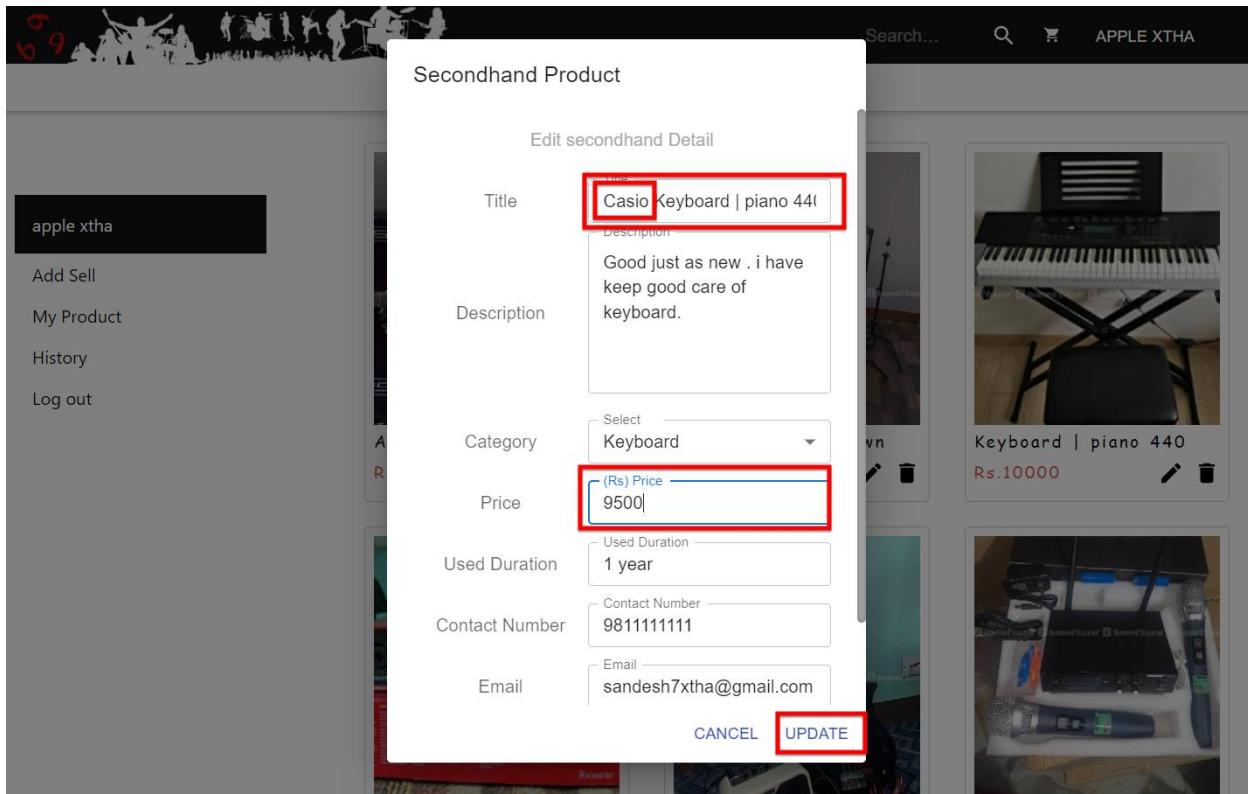


Figure 66 Test Case- Edit and Update Product by user in secondhand section 3

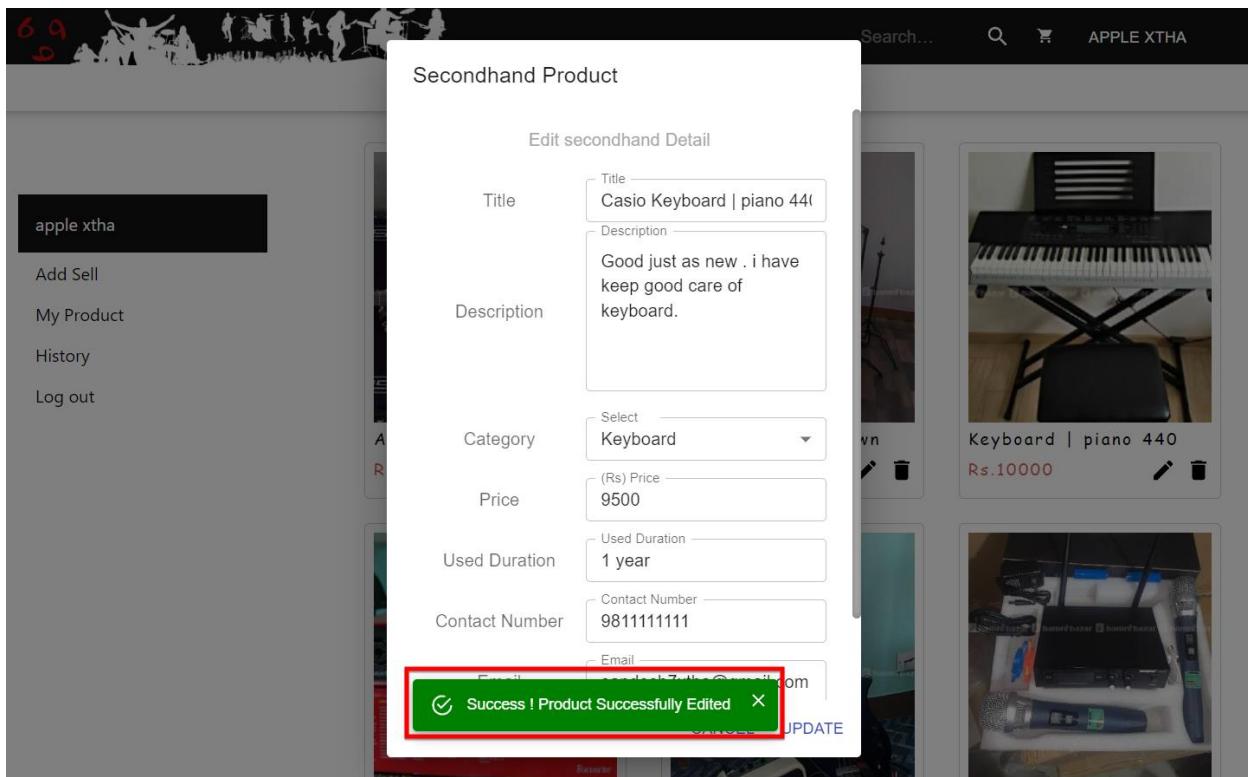


Figure 67 Test Case- Edit and Update Product by user in secondhand section 4

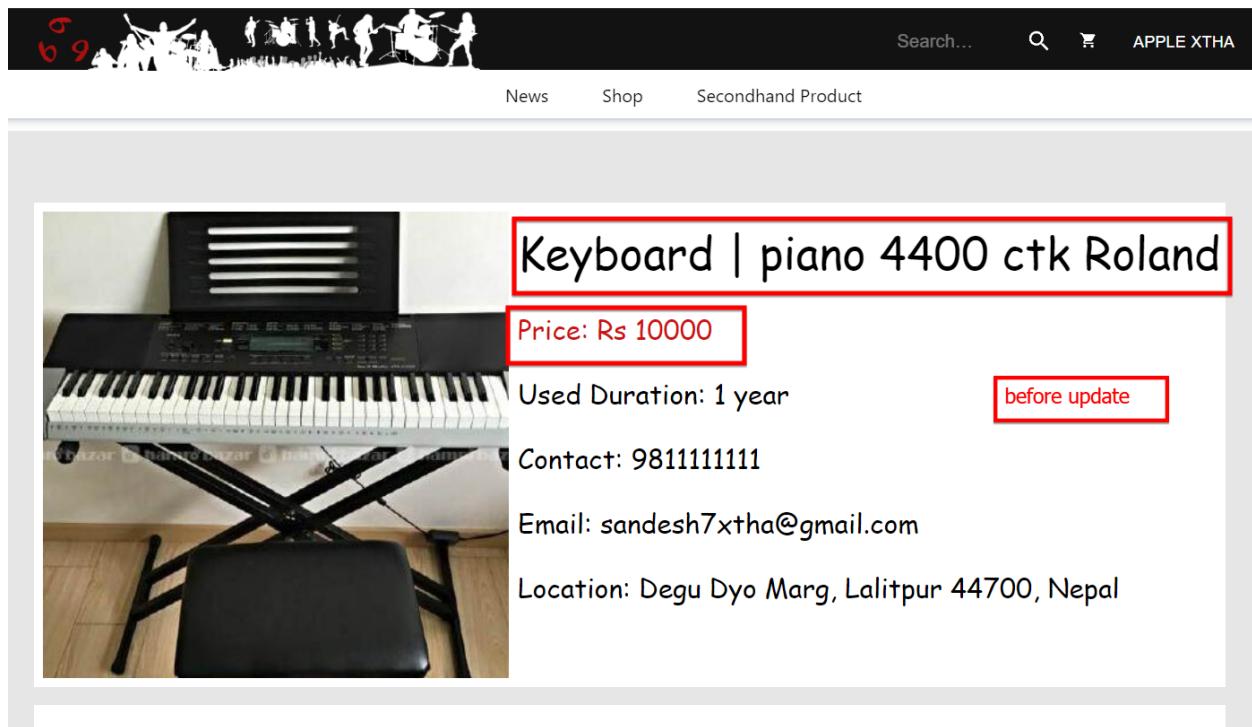


Figure 68 Test Case- Edit and Update Product by user in secondhand section 5

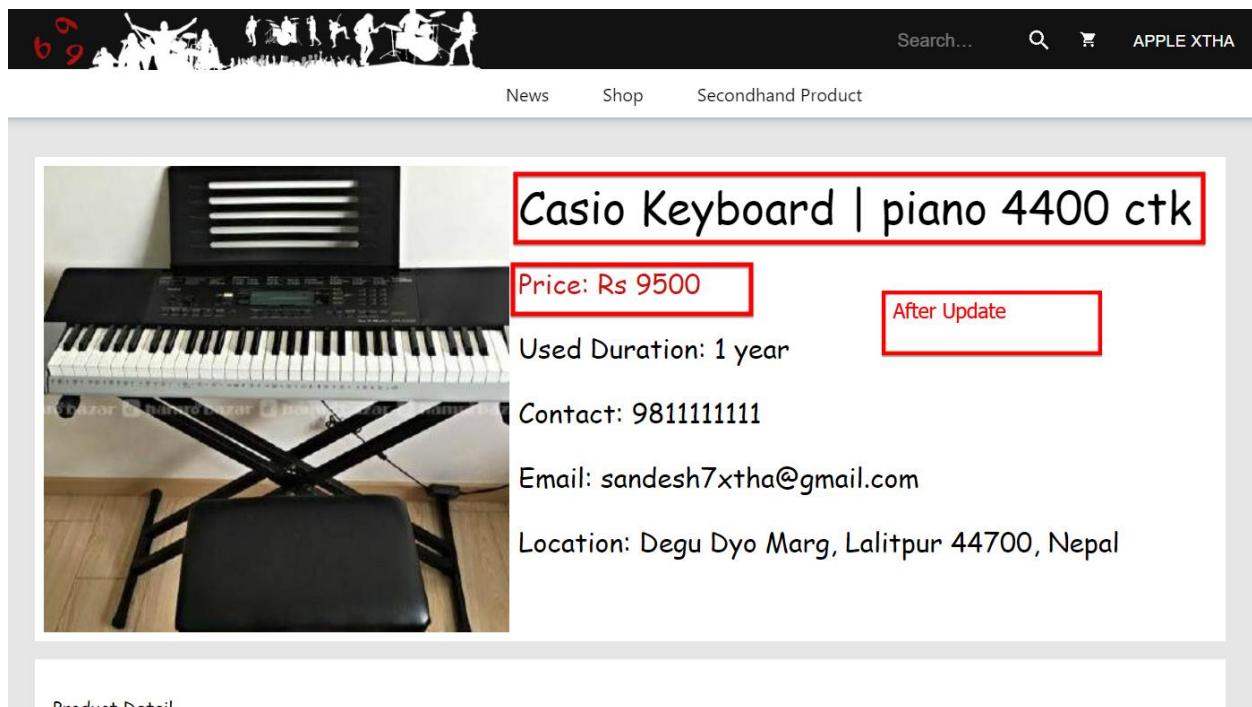


Figure 69 Test Case- Edit and Update Product by user in secondhand section 6

4.1.9 Test Case- Add to Cart Product and Pay online

objective	To test if the user can add to cart multiple products and pay online. After payment add to cart product must be clear.
Expected Result	user should be able to add to cart product multiple products and pay online. After payment add to cart product must be clear.
Actual Result	user able to add to cart product multiple products and pay online. After payment add to cart product is clear.
Conclusion	Successful.

Table 10 Test Case- Add to Cart Product and Pay online



Figure 70 Test Case- Add to Cart Product and Pay online

Product add to Cart!

OK

Puffin - ST Custom Guitar | Black | Electric Guitar | Batman theme

Rs.34

Rs.32.98

+ 1 - 4 Stock left

ADD TO CART

Product Detail

Product details of ST Custom Puffin Electric Guitar with Solid Mahogany Body, Black Brand: ST Custom (Brand of Nepal) One year warranty in Neck (Tross Rod) Constructed of high-quality Mahogany wood Humbucker pickup Tune-O-Matic-style Bridge Rosewood fingerboard with 22 frets Body and set-in Neck: Mahogany, natural high gloss finish Fingerboard: Rosewood with Pearloid white square

Figure 71 Test Case- Add to Cart Product and Pay online 2

Search... APPLE XTHA

News Shop Secondhand Product

Product	Quantity	Price	Action
Puffin - ST Custom Guitar Black Electric Guitar Batman theme	1	Rs.34	Remove
Ernie Ball Electric Guitar Strings (11-48)	4	Rs.5	Remove
Accessories		Total Rs.20	
Total		Rs.54	

Figure 72 Test Case- Add to Cart Product and Pay online 3

Ernie Ball Electric Guitar Strings (11-48)
Made from nickel wound Steel wire wrapped around a hex shaped steel core wire Quality Guitar Strings Made With Quality Material

4 Rs.5
Total Rs.20

Accessories

Total Rs.54

CHECK OUT

666 Music : Divine Power of God

[About Us](#)

[Contact Us](#)

[Social Media](#)

Figure 73 Test Case- Add to Cart Product 4

With Quality Material

4 Rs.20

Accessories

Total Rs.54

CHECK OUT

Shipping address

Full Name *	Address line *
Sandesh shrestha	Thana Road, Damak-6
Contact Number *	City *
9811111111	Damak, Jhapa
State/Province/Region	Zip / Postal code *
Province No. 1	57217

Pay Via Khalti

Figure 74 Test Case- Add to Cart Product and Pay online 5

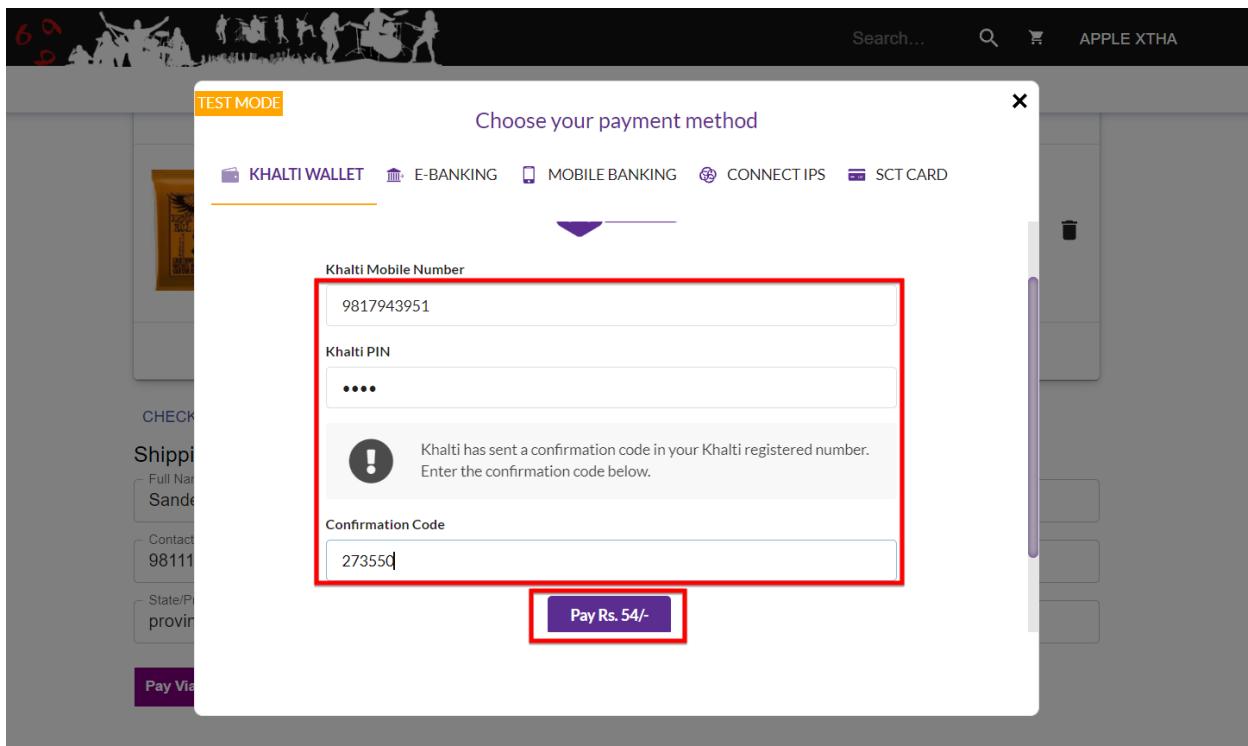


Figure 75 Test Case- Add to Cart Product and Pay online 6

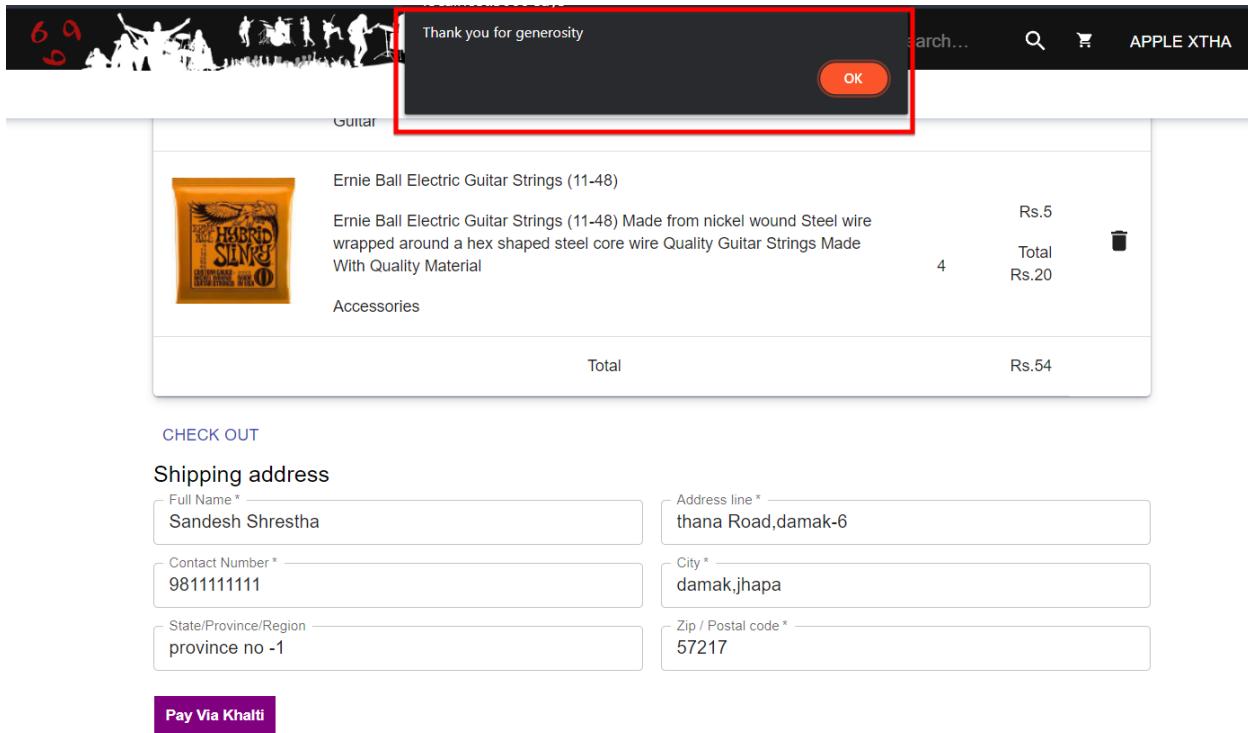


Figure 76 Test Case- Add to Cart Product and Pay online 7

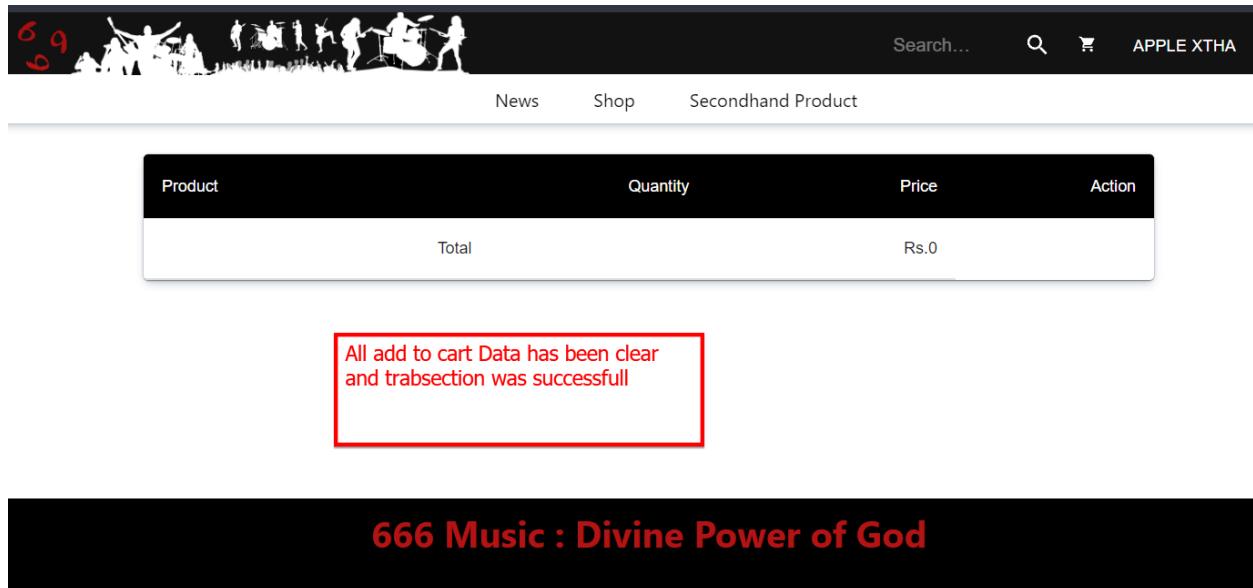


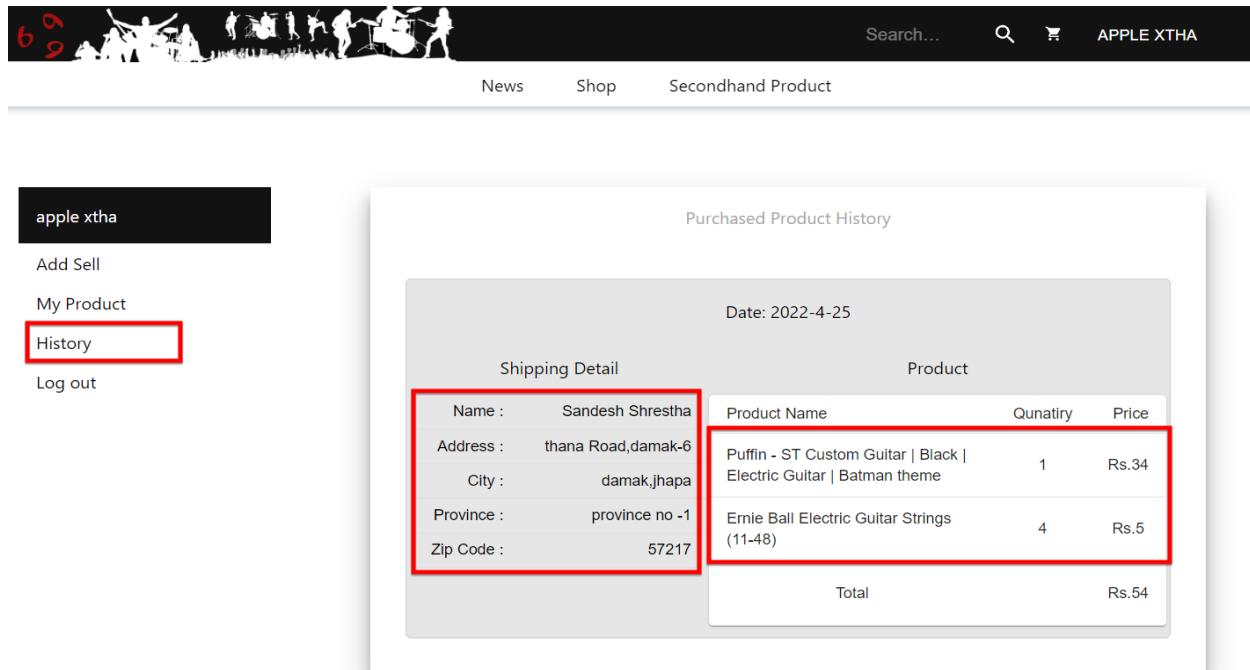
Figure 77 Test Case- Add to Cart Product and Pay online 8

4.1.10 Test Case- Purchase History in user account and Order Detail in admin panel

objective	To test if the user can see successful transaction and order detail in history section and by admin in admin panel.
Expected Result	user should be able to see successful transaction and order detail in history section and by admin in admin panel.
Actual Result	user able to see successful transaction and order detail in history section and by admin in admin panel.
Conclusion	Successful.

Table 11 Test Case- Purchase History in user account and Order Detail in admin panel

4.1.10.1 User

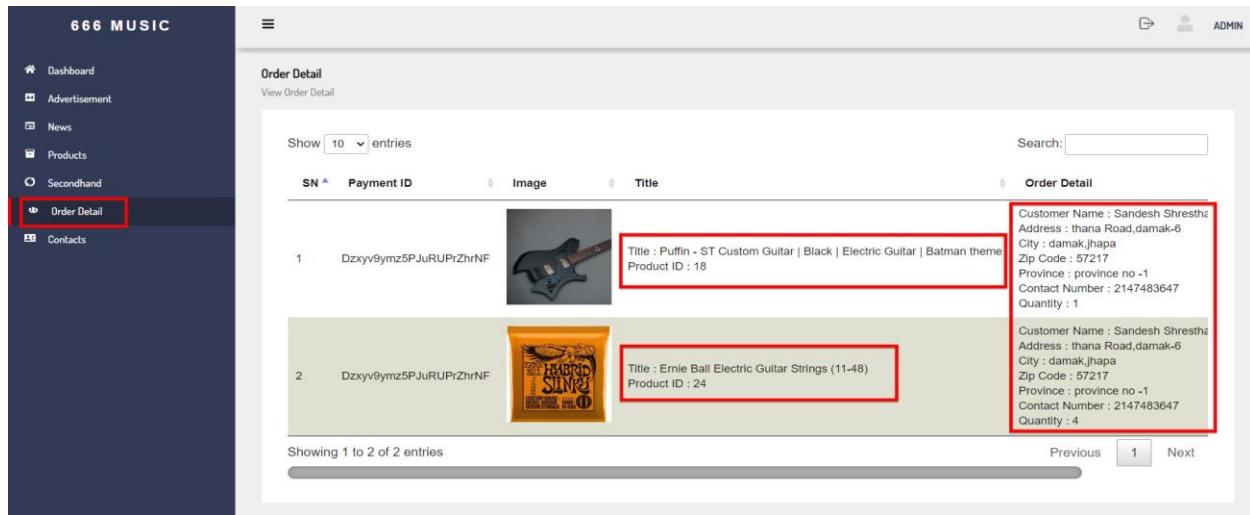


The screenshot shows a user account interface for 'apple xtha'. The left sidebar includes links for 'Add Sell', 'My Product', 'History' (which is highlighted with a red box), and 'Log out'. The main content area is titled 'Purchased Product History' and shows a table of purchase details. The table has columns for 'Shipping Detail' (Name, Address, City, Province, Zip Code) and 'Product' (Product Name, Quantity, Price). The data in the table is as follows:

Shipping Detail		Product		
Name :	Sandesh Shrestha	Product Name	Quantity	Price
Address :	thana Road,damak-6	Puffin - ST Custom Guitar Black Electric Guitar Batman theme	1	Rs.34
City :	damak,jhapa	Ernie Ball Electric Guitar Strings (11-48)	4	Rs.5
Province :	province no -1			
Zip Code :	57217			
		Total	Rs.54	

Figure 78 Test Case- Purchase History in user account

4.1.10.2 Admin



The screenshot shows the 'Order Detail' section of the admin panel for '666 MUSIC'. The left sidebar has a 'Order Detail' link (highlighted with a red box) under the 'Secondhand' category. The main content area shows a table of order details. The table has columns for 'SN', 'Payment ID', 'Image', 'Title', and 'Order Detail'. The data in the table is as follows:

SN	Payment ID	Image	Title	Order Detail
1	Dzxyv9ymz5PJUUPrZhrNF		Title : Puffin - ST Custom Guitar Black Electric Guitar Batman theme Product ID : 18	Customer Name : Sandesh Shrestha Address : thana Road,damak-6 City : damak,jhapa Zip Code : 57217 Province : province no -1 Contact Number : 2147483647 Quantity : 1
2	Dzxyv9ymz5PJUUPrZhrNF		Title : Ernie Ball Electric Guitar Strings (11-48) Product ID : 24	Customer Name : Sandesh Shrestha Address : thana Road,damak-6 City : damak,jhapa Zip Code : 57217 Province : province no -1 Contact Number : 2147483647 Quantity : 4

Figure 79 Test Case- Order Detail in admin panel

4.2 integration Testing

4.2.1 Delete Product

objective	To test if the admin can delete shop product and secondhand product.
Expected Result	Admin should have access to delete shop product and secondhand product.
Actual Result	Admins have access to delete shop product and secondhand product. Product success fully deleted.
Conclusion	Successful.

Table 12 Test Case- Delete Product

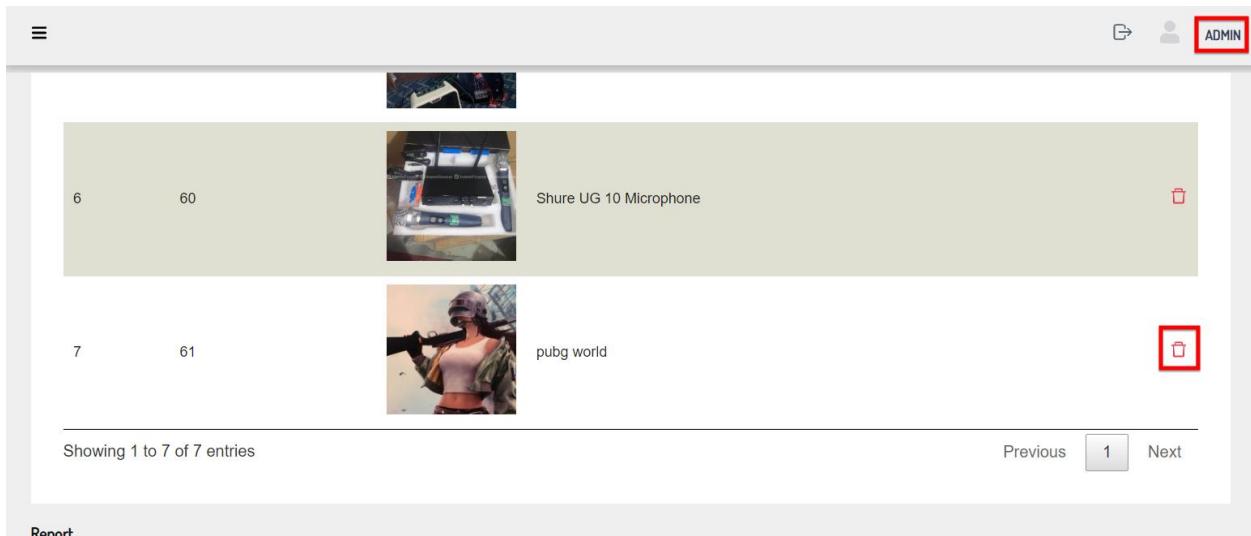


Figure 80 Test Case- Delete Product

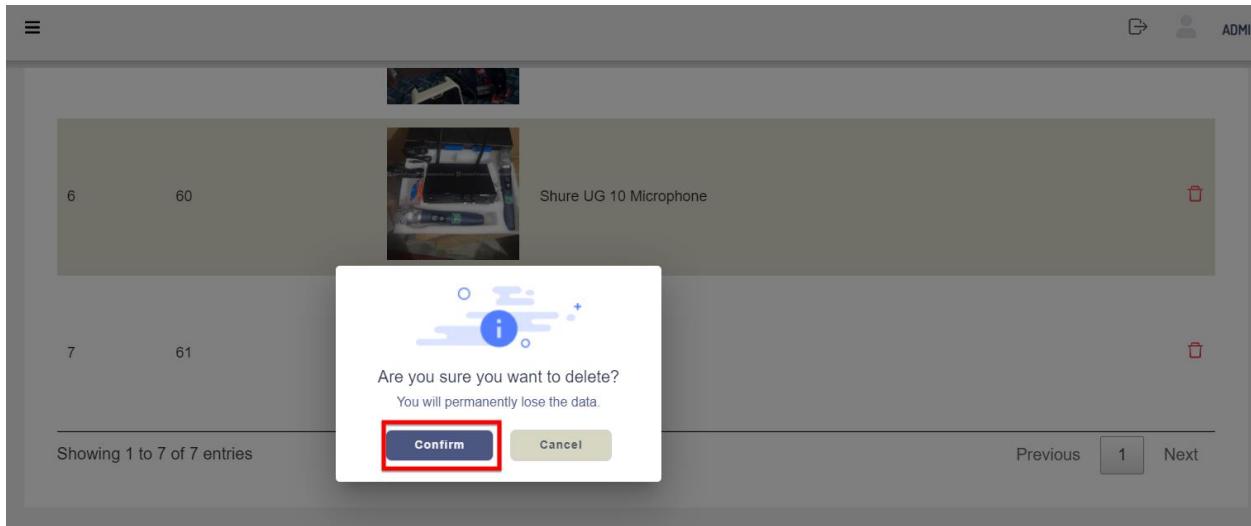


Figure 81 Test Case- Delete Product 2

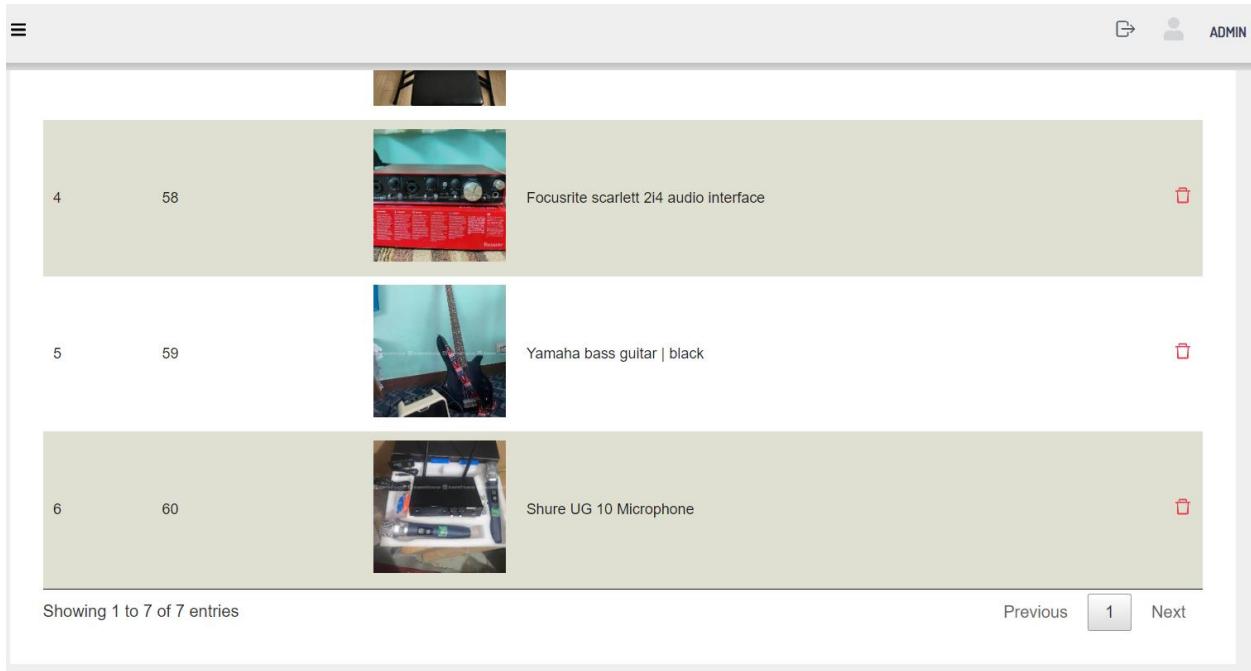


Figure 82 Test Case- Delete Product 3

4.2.2 Adding News and Advertisement

objective	To test if the admin can add News and Advertisement in News Blog section.
Expected Result	Admin should be able to add News and Advertisement in News Blog section
Actual Result	Admin able to add News and Advertisement in News Blog section
Conclusion	Successful.

Table 13 Test Case- Adding News and Advertisement

4.2.2.1 News Section

SN	News ID	Image	Title	Action
1	23		Download Festival	Edit Delete
2	22		Avenged Sevenfold	Edit Delete

Figure 83 Test Case- Adding News

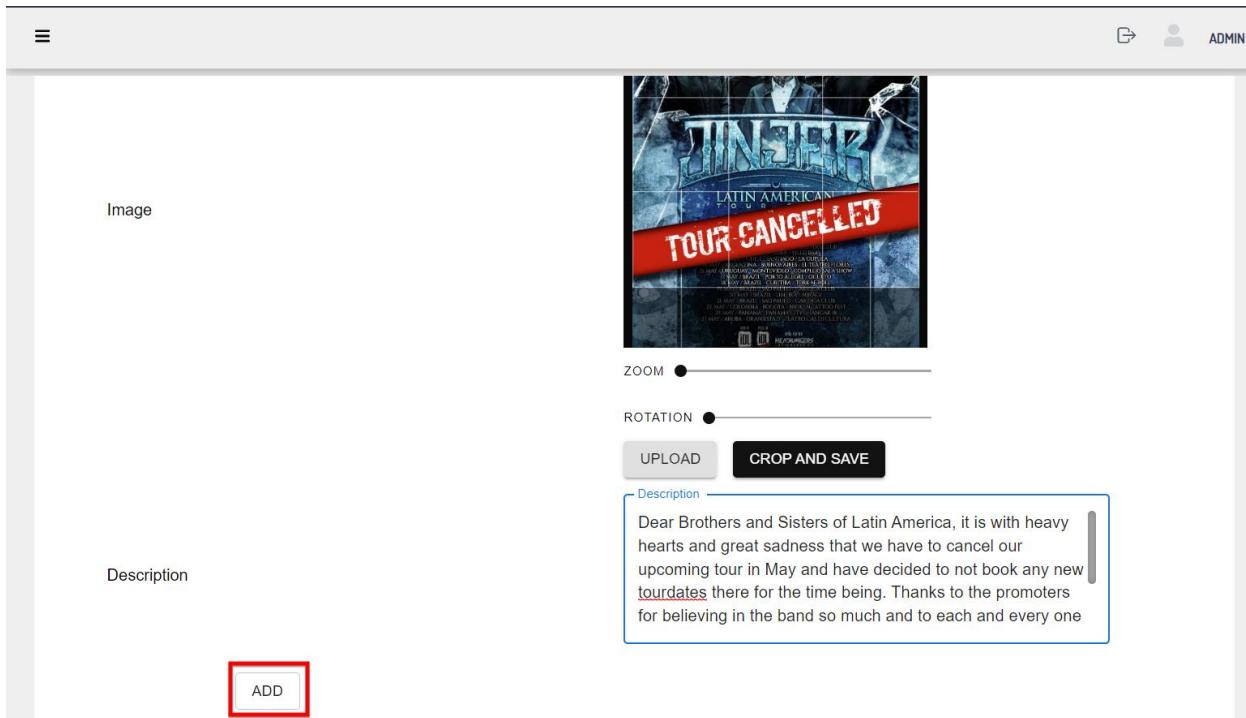


Figure 84 Test Case- Adding News

News						Add New
View News Detail						
SN	News ID	Image	Title	Action		
1	24		Jinjer Tour Cancelled	Edit	Delete	
2	23		Download Festival	Edit	Delete	

Figure 85 Test Case- Adding News 2

666 MUSIC

Search... account

News Shop Secondhand Product

Jinjer Tour Cancelled

2022-4-25

Dear Brothers and Sisters of Latin America, it is with heavy hearts and great sadness that we have to cancel our upcoming tour in May and have decided to not book any new tourdates there for the time being. Thanks to the promoters for believing in th [Read More](#)

Figure 86 Test Case- Adding News 3

4.2.2.2 Advertisement Section

666 MUSIC

Advertisement

Add Advertisement

SN	News ID	Image	Title	Action
Showing 1 to 1 of 1 entries				

Previous 1 Next

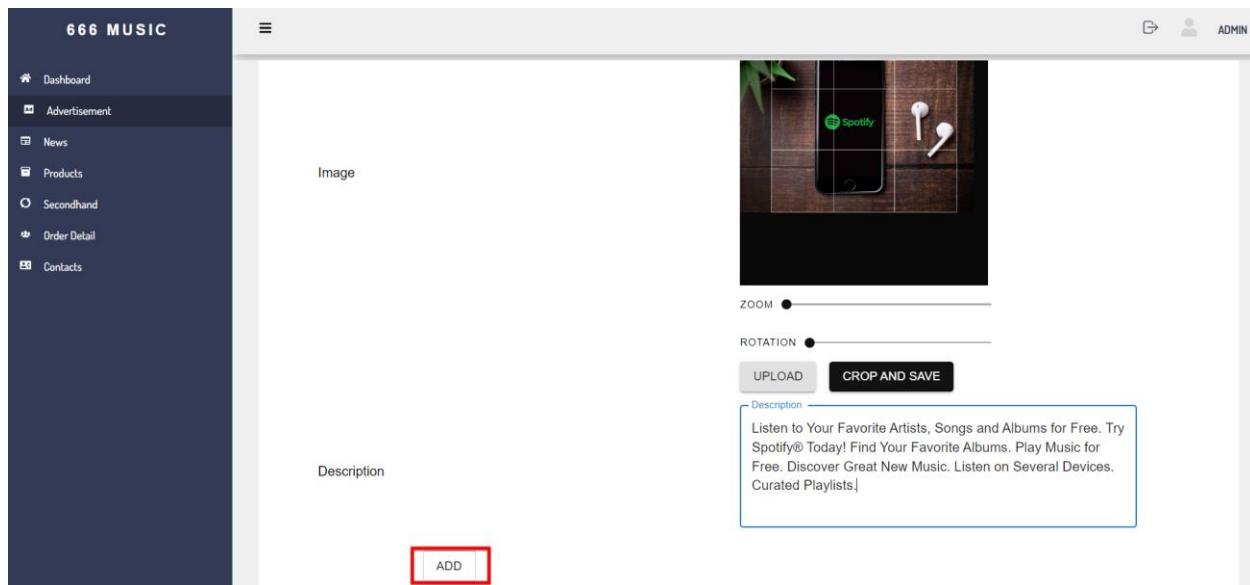


Figure 87 Test Case- Adding Advertisement

Advertisement						Add Advertisement
View Advertisement Detail						
SN	News ID	Image	Title	Action		
1	4		Spotify			

Show 10 entries

Search:

Showing 1 to 1 of 1 entries

Previous 1 Next

Figure 88 Test Case- Adding Advertisement 2

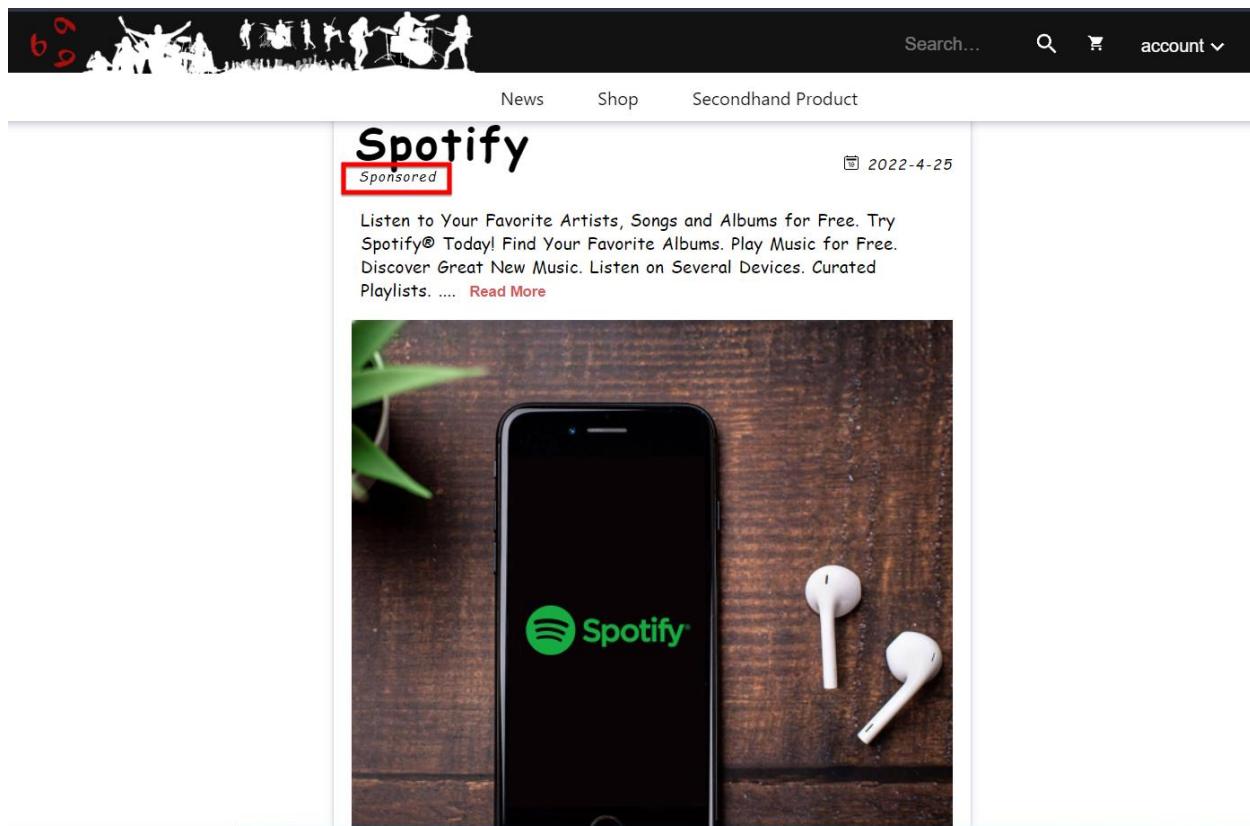


Figure 89 Test Case- Adding Advertisement 3

4.2.3 Test Case- Adding Product

objective	To test if the admin can add product in shop
Expected Result	Admin should be able to add product in shop section and.
Actual Result	Admin add product in shop section successfully.
Conclusion	Successful.

Table 14 Adding Product

666 MUSIC

- Dashboard
- Advertisement
- News
- Products**
- Secondhand
- Order Detail
- Contacts

Products

Show 10 entries

SN	Product ID	Image	Title	Publish	Action
1	18		Puffin - ST Custom Guitar Black Electric Guitar Batman theme	<input checked="" type="checkbox"/>	
2	19		Pearl Stage Drum Full Sets Black	<input checked="" type="checkbox"/>	
3	21		Focusrite Scarlett Solo(3rd Gen) USB Audio Interface Pro performance	<input checked="" type="checkbox"/>	

Figure 90 Adding Product

Products

Add Product

Title

Ktaxon 5-Color Beginner Electric Bass Guitar Musical Instrume

Image

Figure 91 Adding Product 2

ROTATION ●

UPLOAD CROP AND SAVE

Description

Face Material: Basswood
Back Material: Basswood
Side Panel Material: Basswood

Category

Select: Bass

Price

(Rs) Price: 120000

Stock

stock: 7

Discount

discount: 12

ADD

Figure 92 Adding Product 3

666 MUSIC

Dashboard
Advertisement
News
Products
Secondhand
Order Detail
Contacts

ROTATION ●

UPLOAD CROP AND SAVE

Description

Category

Select

Price

(Rs) Price

Stock

stock

Discount

discount

Success ! Product Successfully added

Brave
Nexo: Buy BTC & Get 0.5% Back
Invest in Bitcoin or other assets & get up to 0.5% cashback!

Close

Figure 93 Adding Product 4

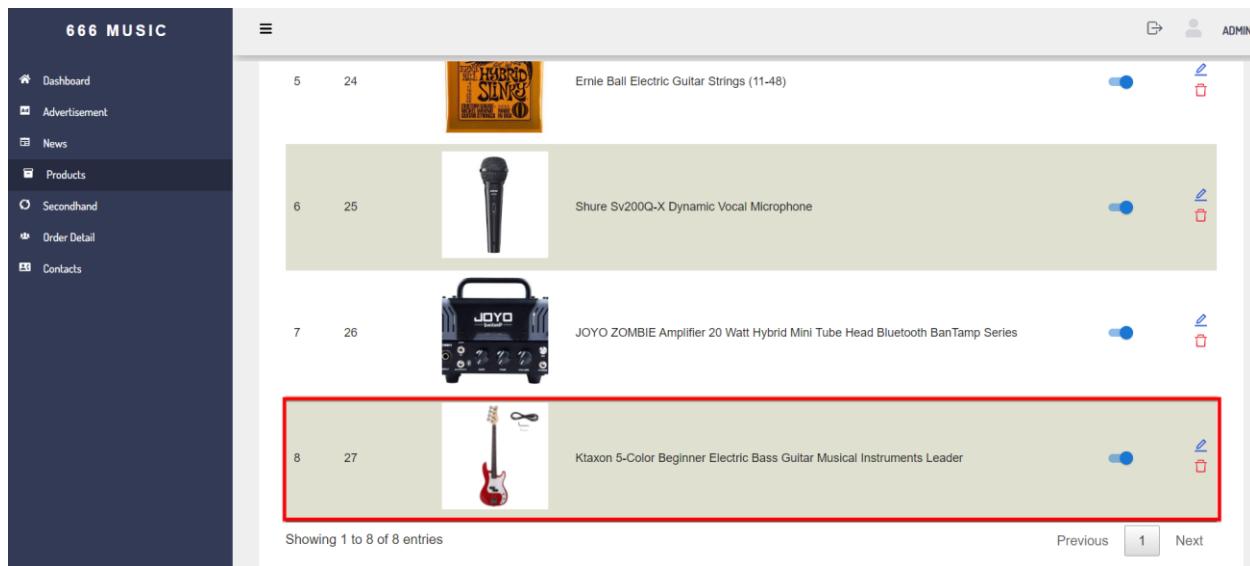


Figure 94 Adding Product 5

4.2.3.1 Edit and Update Product

objective	To test if the admin can edit and update product in shop section
Expected Result	Admin should be able to edit and update product in shop section.
Actual Result	Admin edit and update product in shop section and user edit
Conclusion	Successful.

Table 15 Edit and Update Product

5	24		Ernie Ball Electric Guitar Strings (11-48)	<input checked="" type="checkbox"/>	 
6	25		Shure SV200Q-X Dynamic Vocal Microphone	<input checked="" type="checkbox"/>	 
7	26		JOYO ZOMBIE Amplifier 20 Watt Hybrid Mini Tube Head Bluetooth BanTamp Series	<input checked="" type="checkbox"/>	 
8	27		Ktaxon 5-Color Beginner Electric Bass Guitar Musical Instruments Leader	<input checked="" type="checkbox"/>	 

Showing 1 to 8 of 8 entries

Previous 1 Next

Figure 95 Edit and Update Product

Product

Edit Product Detail

Title	Ktaxon 5-Color Beginner E
Description	Features: New and in good condition
Category	Select Bass
Price	(Rs) Price 120000
Stock	Stock 7
Discount	discount 12

Showing 1 to 8 of 8 entries

[CANCEL](#) [UPDATE](#)

Previous 1 Next

Figure 96 Edit and Update Product 2

72

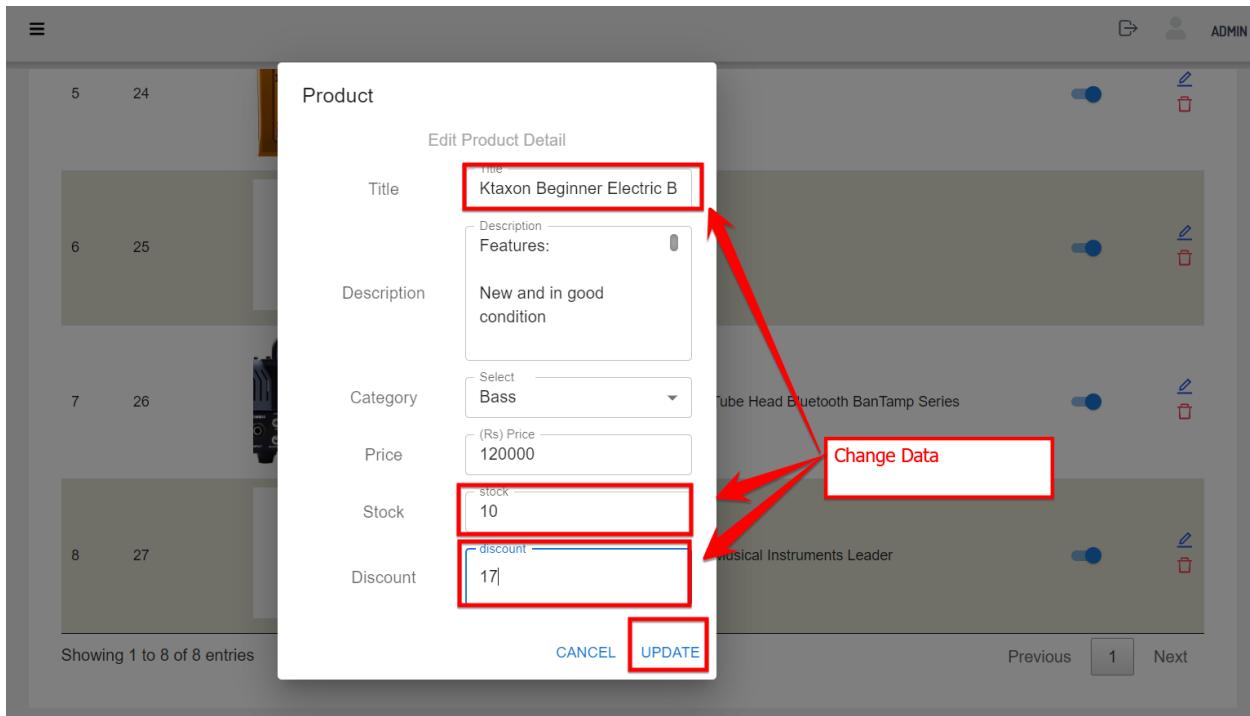


Figure 97 Edit and Update Product 3

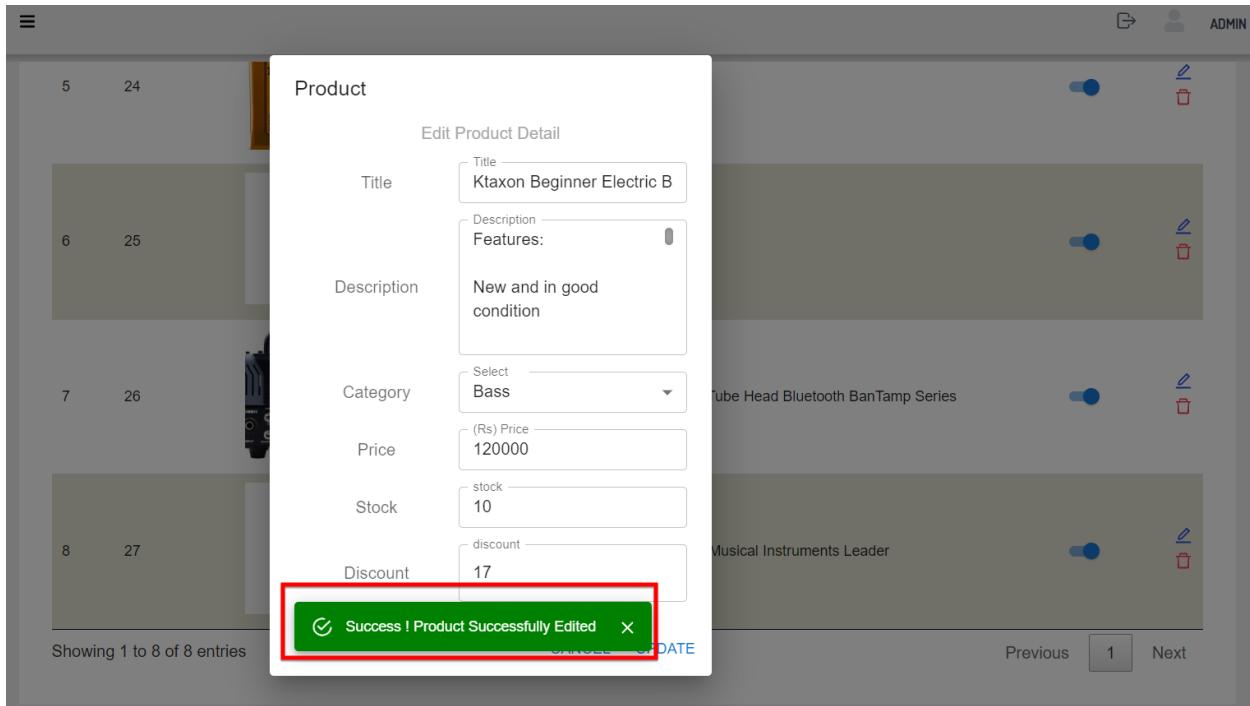


Figure 98 Edit and Update Product 4

4.2.4 Order Detail in admin panel

objective	To test if the admin can see order detail in admin panel.
Expected Result	admin should be able to see order detail in admin panel.
Actual Result	admin able to see order detail in admin panel.
Conclusion	Successful.

Table 16 Order Detail in admin panel

Customer Name : Sandesh Shrestha
Address : thana Road,damak-6
City : damak,jhapa
Zip Code : 57217
Province : province no -1
Contact Number : 2147483647
Quantity : 1

Customer Name : Sandesh Shrestha
Address : thana Road,damak-6
City : damak,jhapa
Zip Code : 57217
Province : province no -1
Contact Number : 2147483647
Quantity : 4

Figure 99 Order Detail in admin panel

More detail on SRS link:[Appendix.10. Software requirement specification \(SRS\)](#)

5 CONCLUSION

5.1 Project Evaluation

This website will surely be beneficial in Nepal's current phase, as the project's main purpose is to establish a user-friendly e-commerce for musical instruments with proper instruction that will directly benefit artists. The development of the 666 Music Application was a success; the web-based application contains all of the functionalities that were promised during the proposal submission process. The program was created with the end user's requirements and needs. The project was built with React for the front end and Node.js for the backend. It was both exciting and tough but choosing them has helped me a lot with efficient coding because of their different built-in libraries and popular language, which allows me to access faster resources and tutorials. Time management is the most critical part of finishing this task. This project will surely aid me in my future endeavors to become a web developer.

5.2 Omission

Unable to compete with two functionalities specified in the proposal. because of insufficient time and a lack of Node understanding, this resulted in time consumption. When our final year project began, I assumed we would have one year to complete it, but we were only given four months.

- Notify admin when product out of stock
- Social site authentication

-

5.3 Future Plan for Shuffle Music

The 666 Music platform's future appears to be as follows:

- Good responsive site
- Chat box
- The use of artificial intelligence to suggest products to customers based on their purchases, searches, and ratings.
- The addition of a language translation feature
- Rating product after purchase only
- Search algorithm
- Refund

6 References

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7 APPENDICES

7.1 Appendix-1: Survey Result

7.1.1 Pre-Survey

how often you use music website ?

50 responses

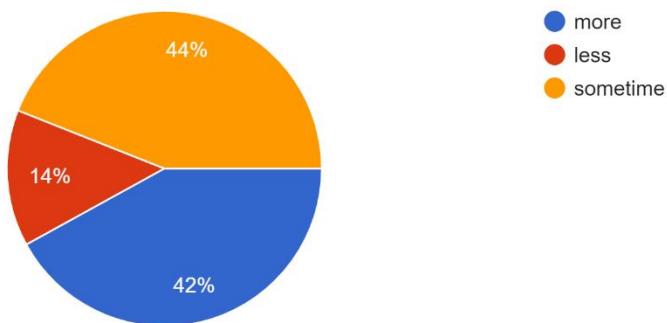


Figure 100: Survey Result question 1

- This poll was created to learn about people's interest in online music store.

how do you prefer buying a musical instrument?

50 responses

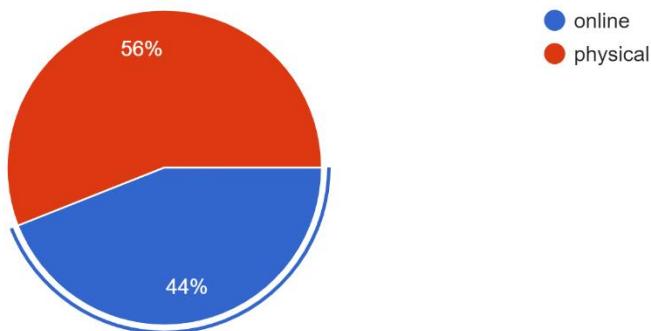


Figure 101 : Survey Result question 2

- This question is typically provided to determine ratio of purchasing instrument physically and online.

What issues have you encountered or may encounter while visiting a music store in Nepal?

50 responses

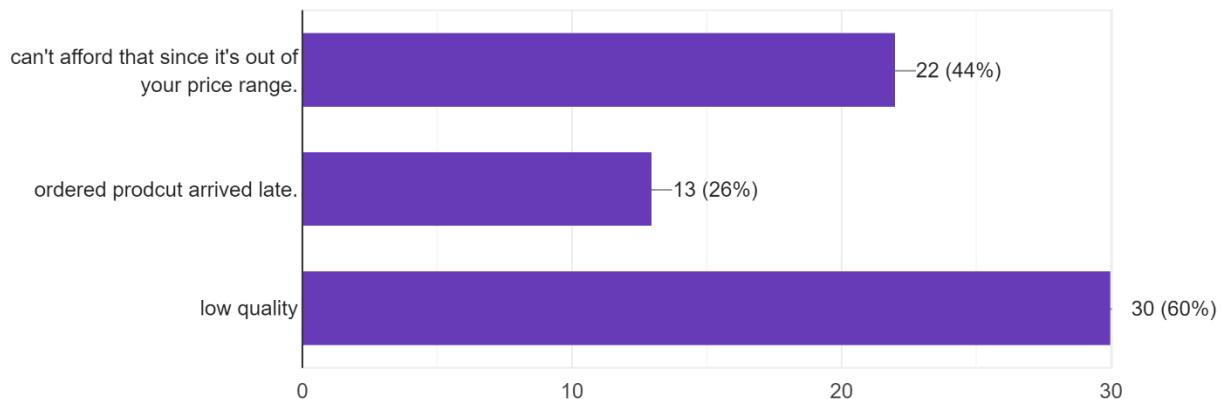


Figure 102: Survey Result question 3

Which of the following features do you believe is the most efficient?

50 responses

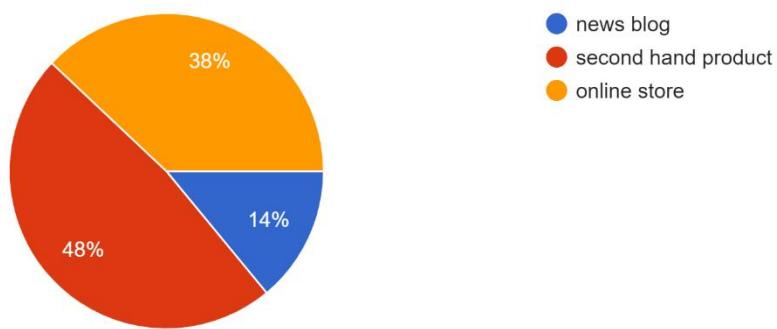


Figure 103: Survey Result question 4

- Forty-eight percent of the fifty participants prefer the online shop feature, while 38 percent prefer the secondhand product feature. This inquiry was posed to determine their level of interest to aid my project.

What percentage of music instruments do you believe are bought online?
50 responses

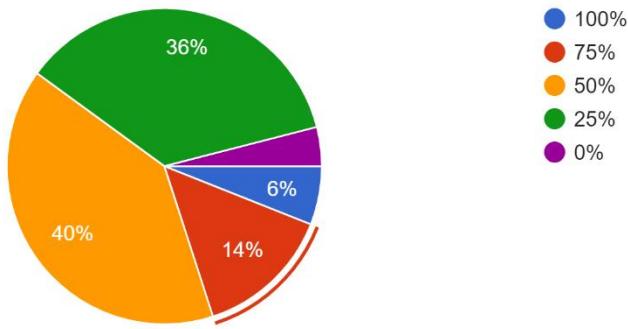


Figure 104: Survey Result question 5

How often do you go to a music store to buy a musical instrument?
50 responses

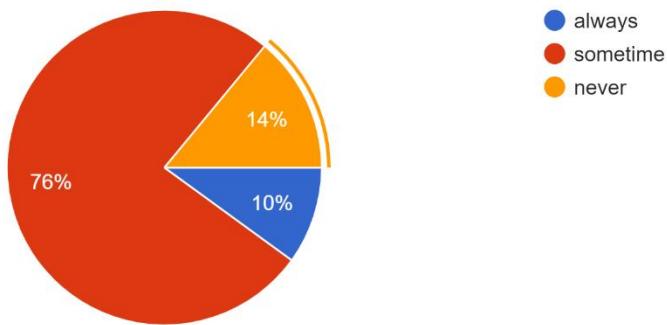


Figure 105: Survey Result question 6

Are you happy with the current e-commerce site for music stores, particularly in Nepal?
50 responses

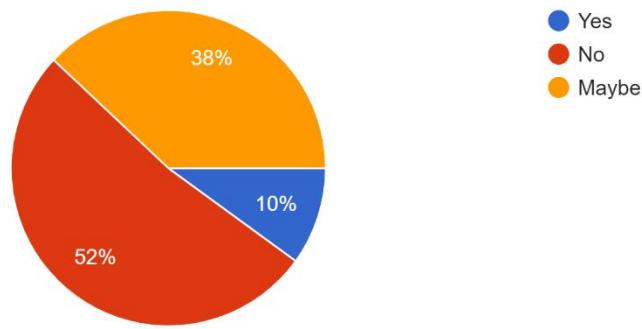


Figure 106: Survey Result question 7

Do you believe this software will benefit the music industry?
50 responses

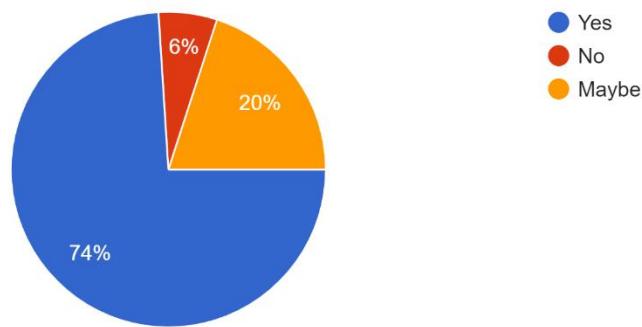


Figure 107: Survey Result question 8

- Almost a third people believe this will be beneficial to the music industry.

Which type of payment do you prefer?

50 responses

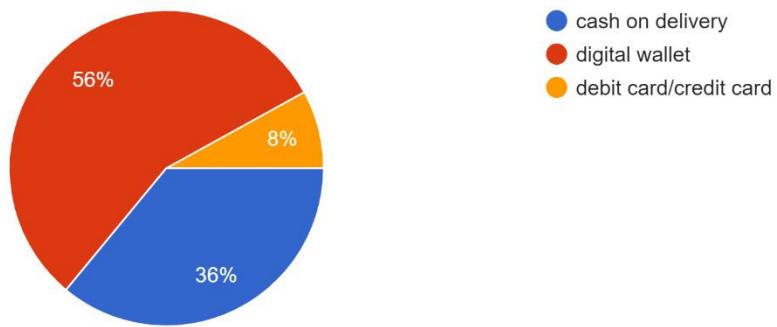


Figure 108: Survey Result question 9

Please provide feedback and suggestions?

50 responses

Great idea. If user could give ratings, reviews to the shop where instruments are bought, then this feature would be helpful for users. I am very happy to hear your project. Finally you got to work on very something, that you like.

It should be nice.

Good luck

Do more research on online music platforms some of the question and options are irrelevant.

no problem

I think giving more detail of the product with resonable price could be better for customers

Good

very nice.

➤ Figure 109: Survey Result feedback

7.1.2 Post-Survey

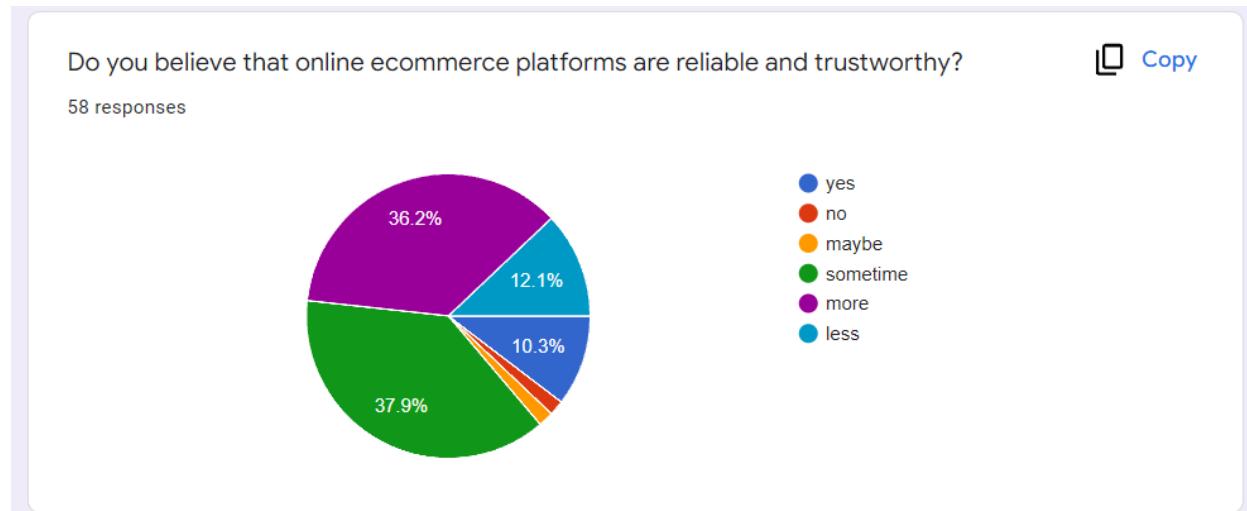


Figure 110 Post Survey Result question

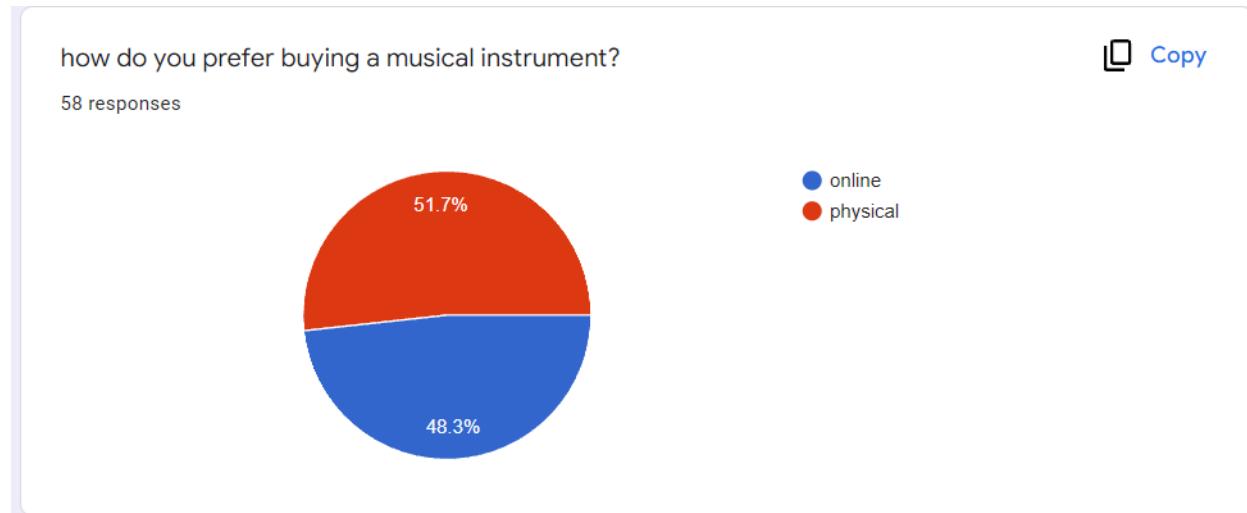


Figure 111 Post Survey Result question 2

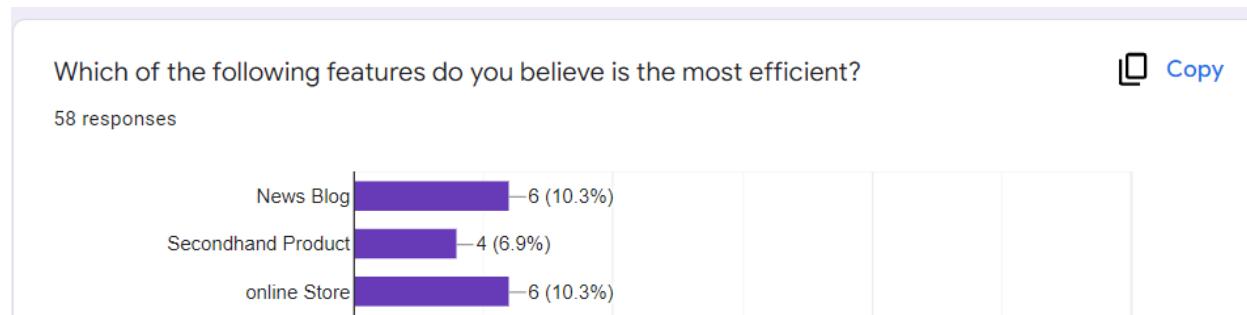


Figure 112 Post Survey Result question 3

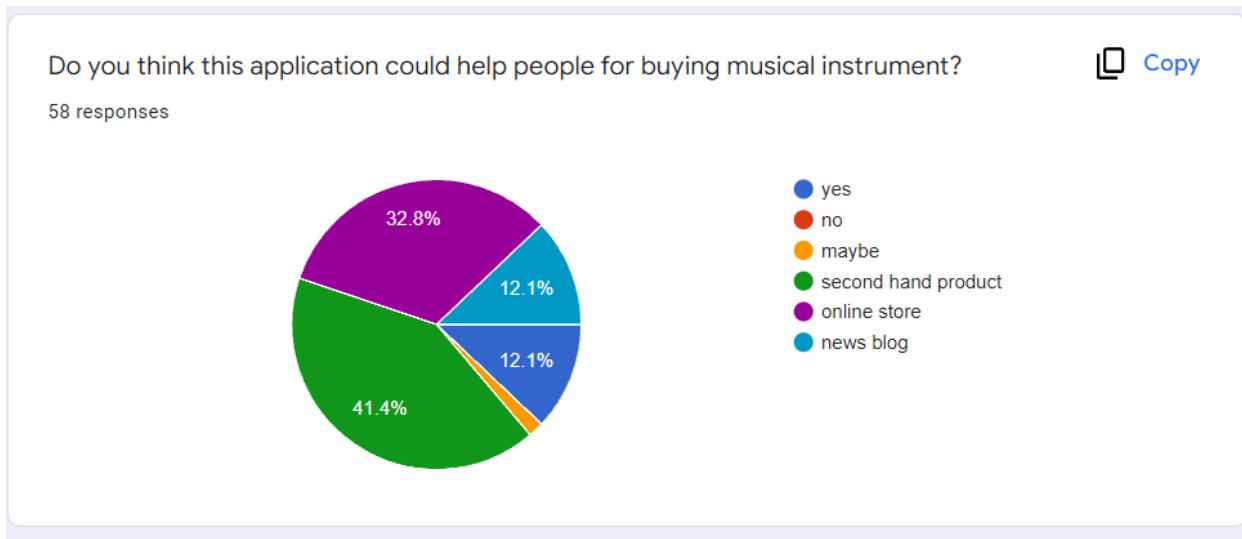


Figure 113 Post Survey Result question 4

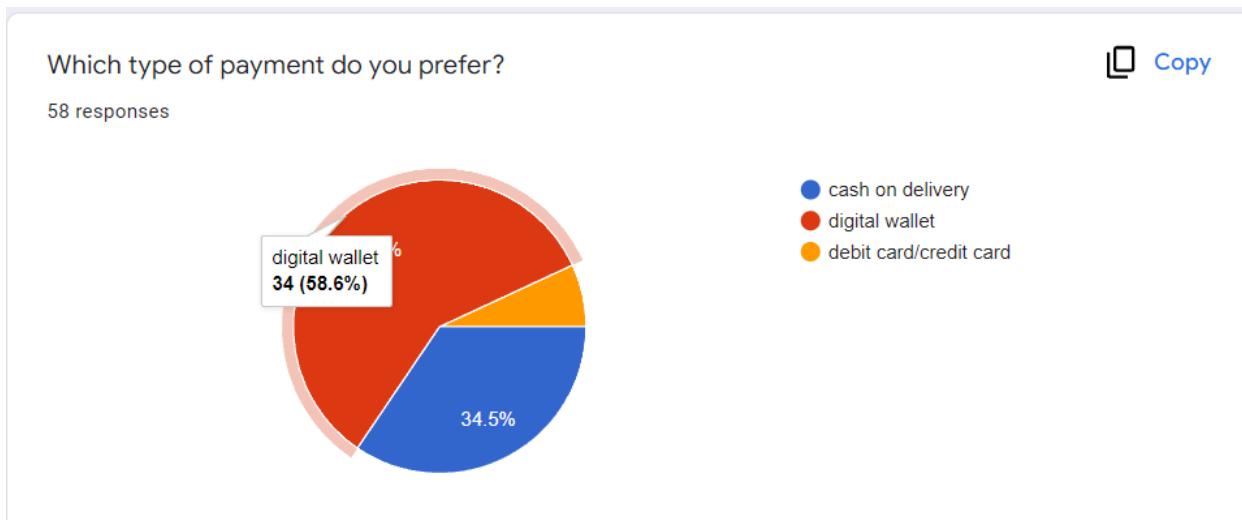


Figure 114 Post Survey Result question 5

How likely are you to use this application.

 Copy

58 responses

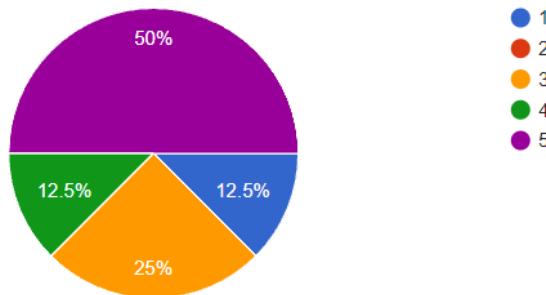


Figure 115 Post Survey Result question 6

Rate the usefulness of this application.

 Copy

58 responses

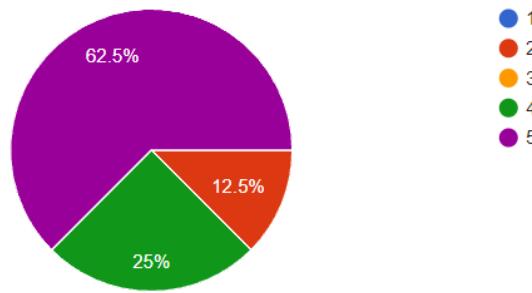


Figure 116 Post Survey Result question 7

Please provide feedback and suggestions?

58 responses

very nice.

Good

All the best

It should be nice.

No any suggestion

everything is good

Babal

Nice Approach

Great app brother

Figure 117 Post Survey Result question 8

7.2 Appendix-2: Wireframe

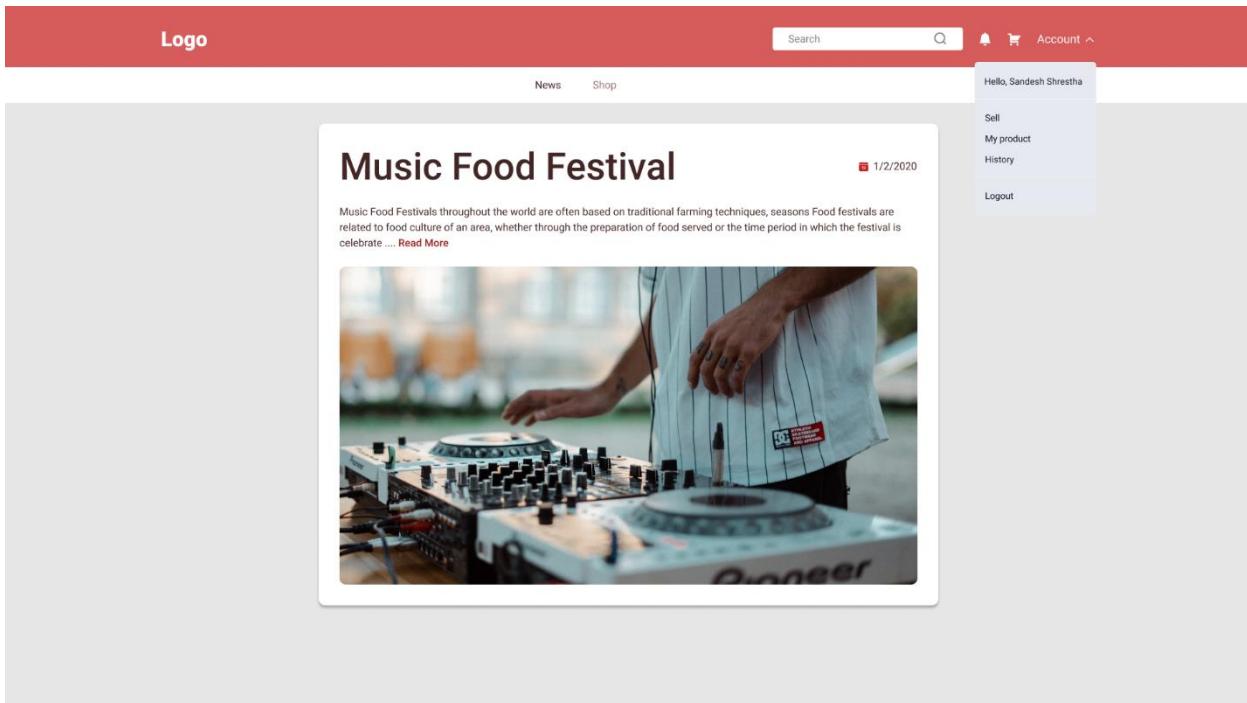


Figure 118: Wireframe 1

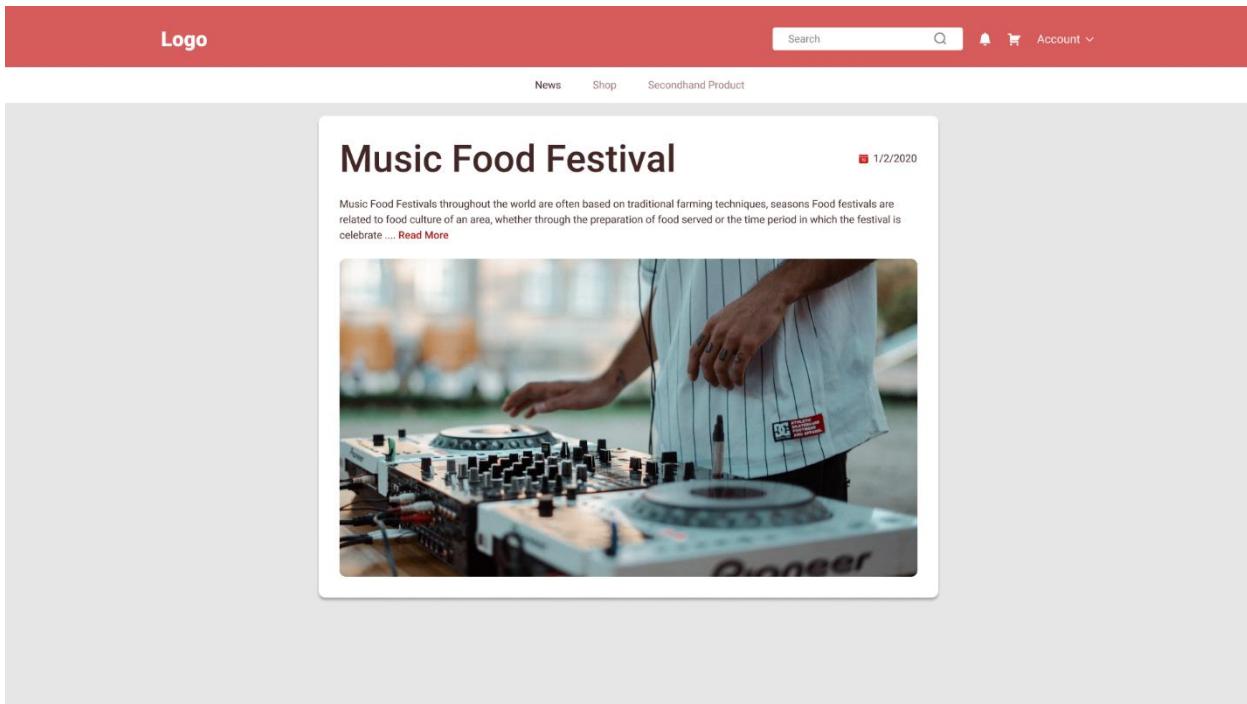


Figure 119: Wireframe 2

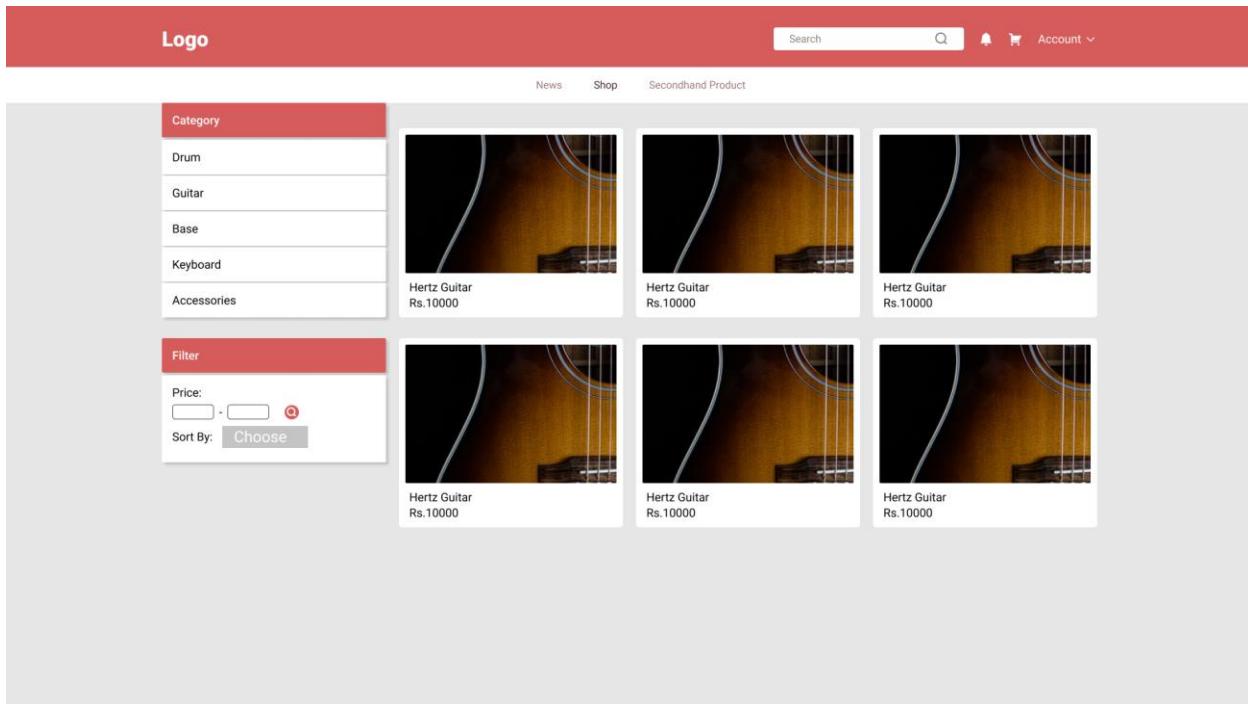


Figure 120: Wireframe 2

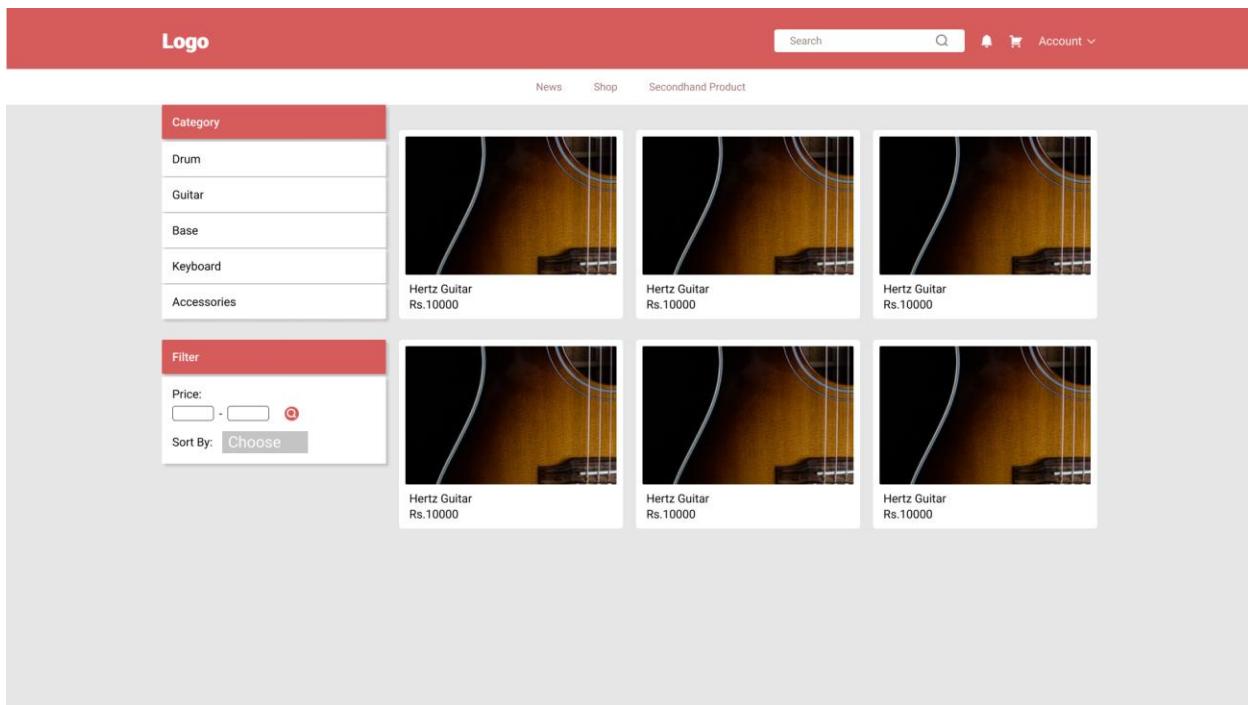
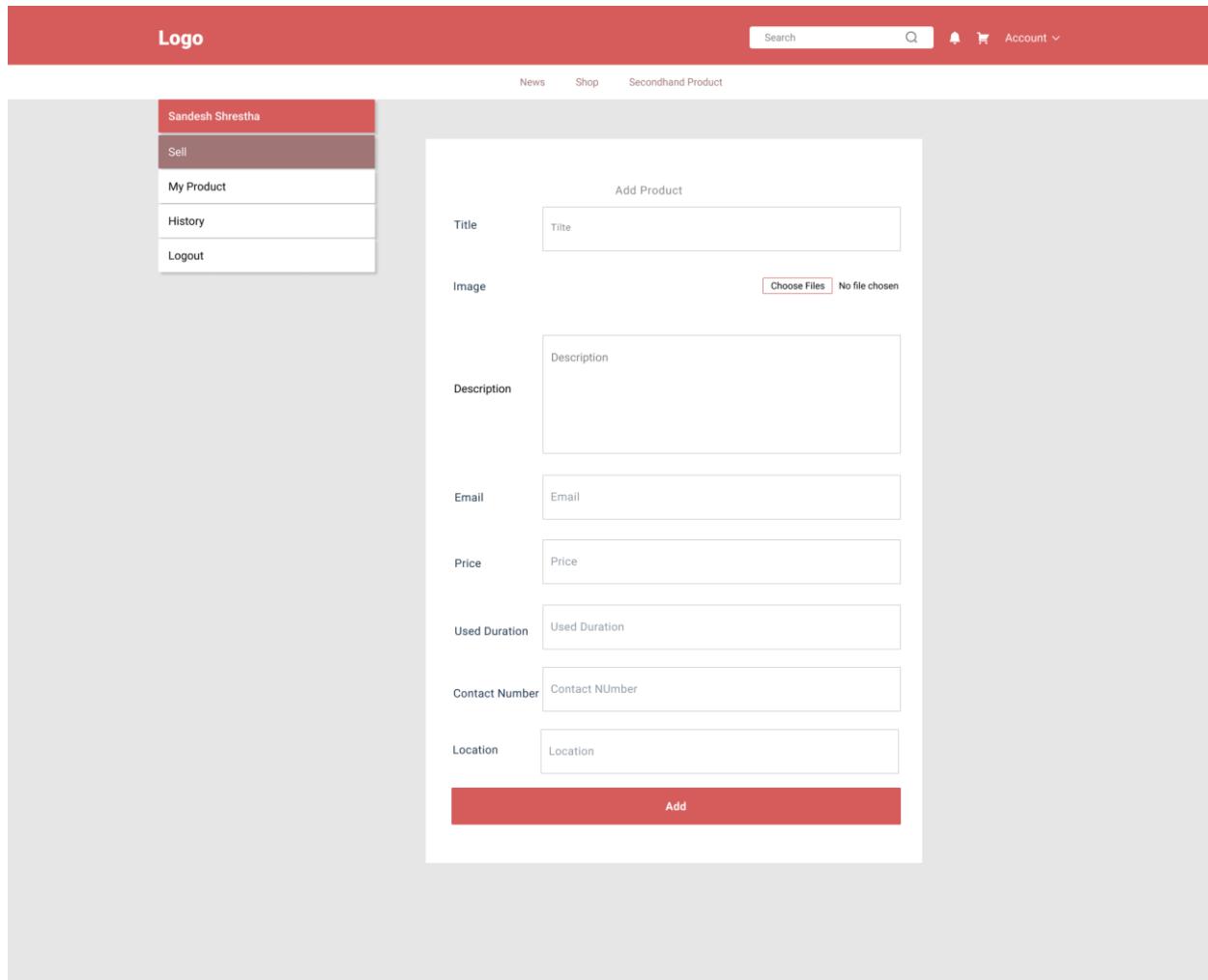


Figure 121: Wireframe 3



Logo

Search Account

News Shop Secondhand Product

Sandesh Shrestha

Sell

My Product

History

Logout

Add Product

Title Title

Image Choose Files No file chosen

Description Description

Email Email

Price Price

Used Duration Used Duration

Contact Number Contact Number

Location Location

Add

This wireframe represents a product addition form. It features a sidebar on the left with a user profile (Sandesh Shrestha) and navigation links (Sell, My Product, History, Logout). The main content area is titled 'Add Product' and contains fields for Title, Image (with a file upload button), Description, Email, Price, Used Duration, Contact Number, and Location. Each field is preceded by a label and followed by an input field. A prominent red 'Add' button is located at the bottom of the form.

Figure 122 : Wireframe 4

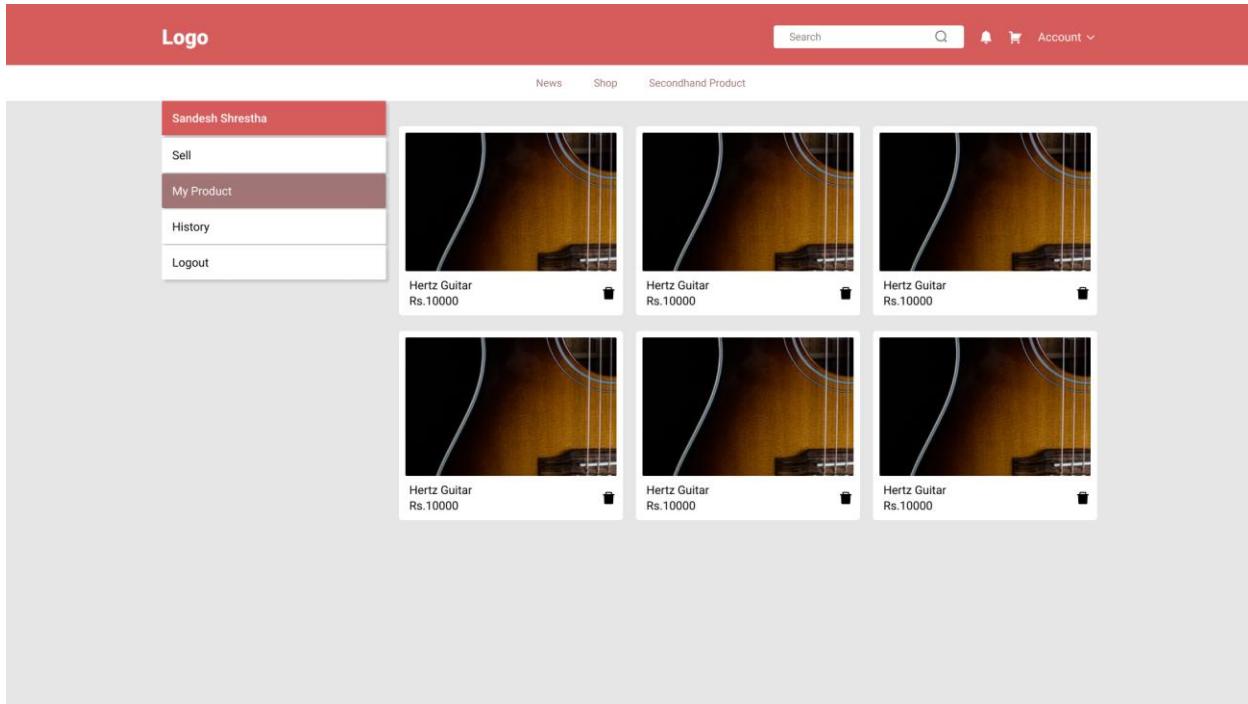


Figure 123 : Wireframe 5

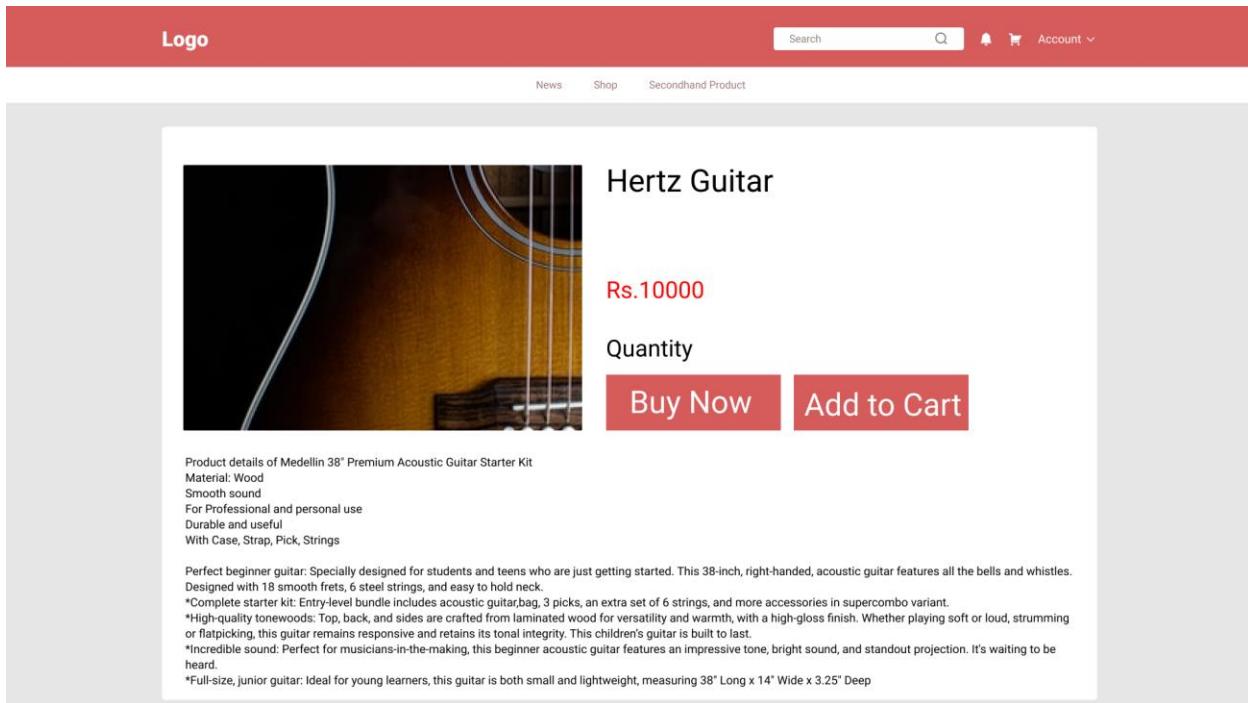
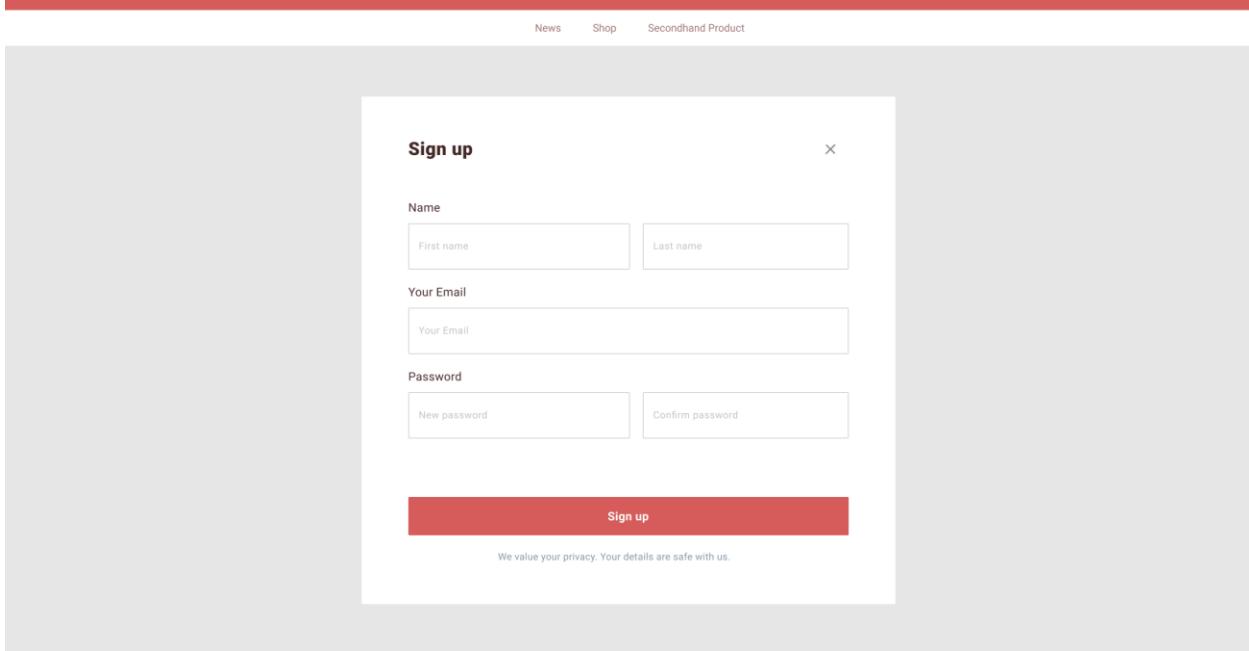


Figure 124: Wireframe 6



Logo

News Shop Secondhand Product

Search Account

Sign up

Name

First name Last name

Your Email

Your Email

Password

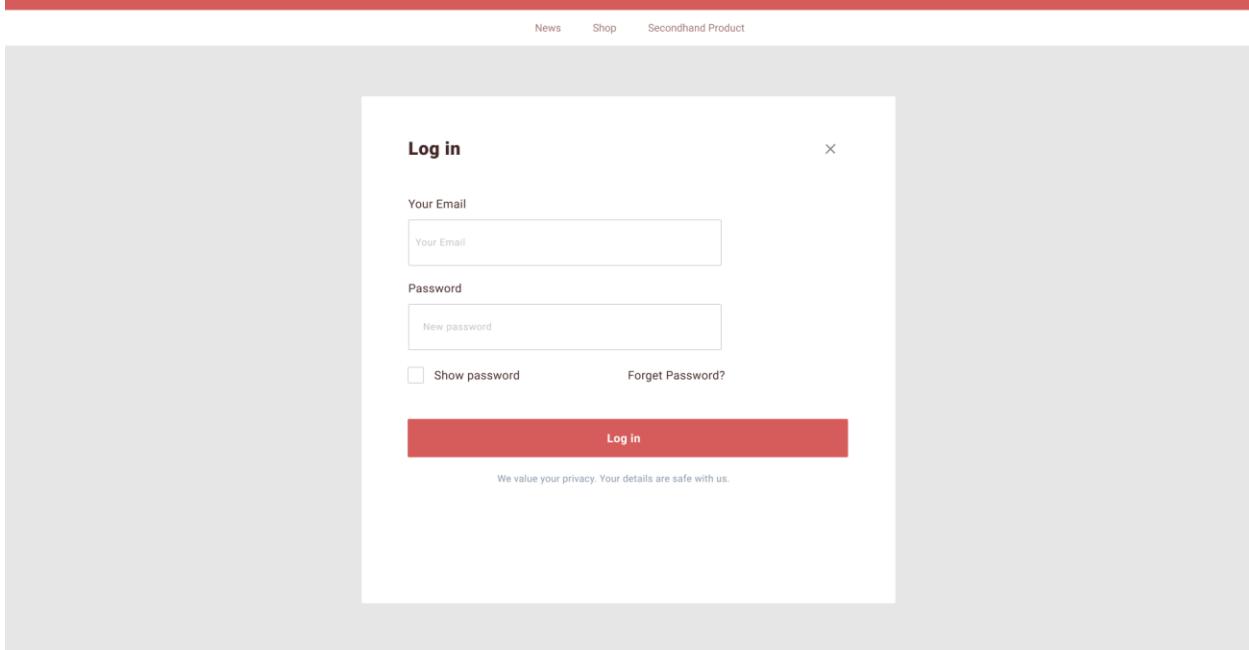
New password Confirm password

Sign up

We value your privacy. Your details are safe with us.

This wireframe shows a sign-up form. It includes fields for first name, last name, email, and password, along with a sign-up button and a privacy statement.

Figure 125: Wireframe 7



Logo

News Shop Secondhand Product

Search Account

Log in

Your Email

Your Email

Password

New password

Show password [Forget Password?](#)

Log in

We value your privacy. Your details are safe with us.

This wireframe shows a log-in form. It includes fields for email and password, a show password checkbox, a forget password link, and a log-in button, along with a privacy statement.

Figure 126 : Wireframe 8

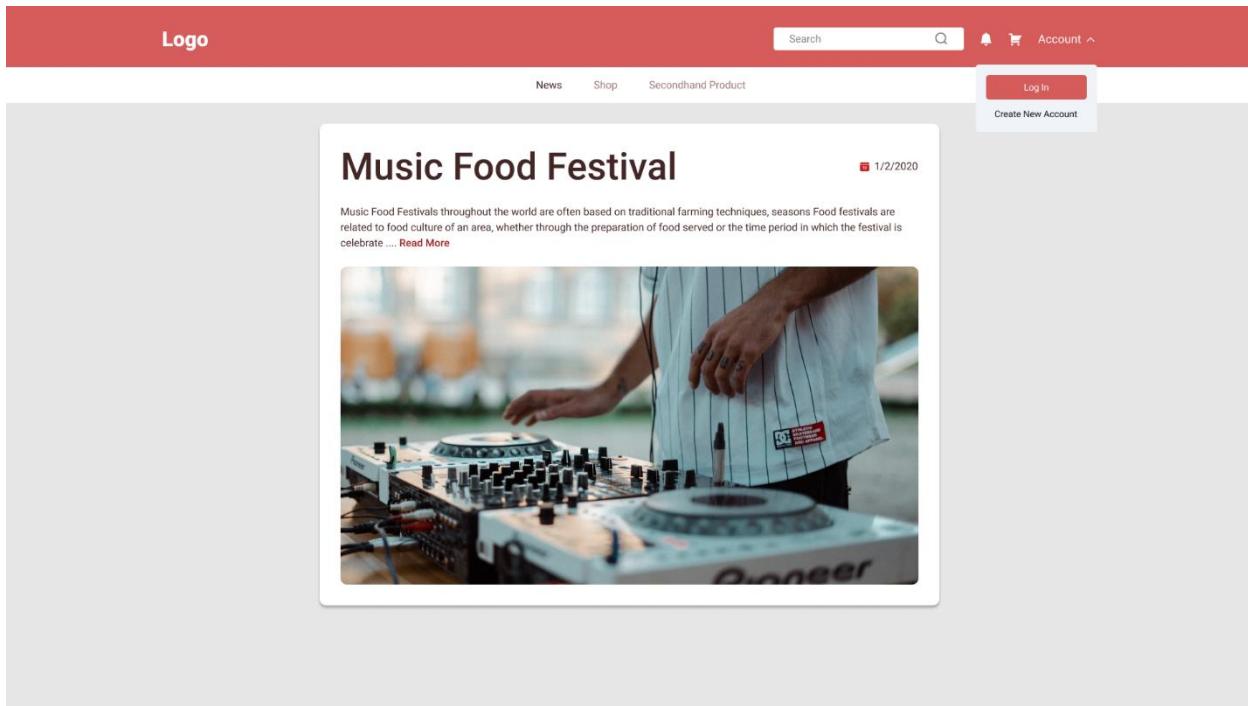


Figure 127 : Wireframe 9

7.3 Appendix-3: Use-case Diagram

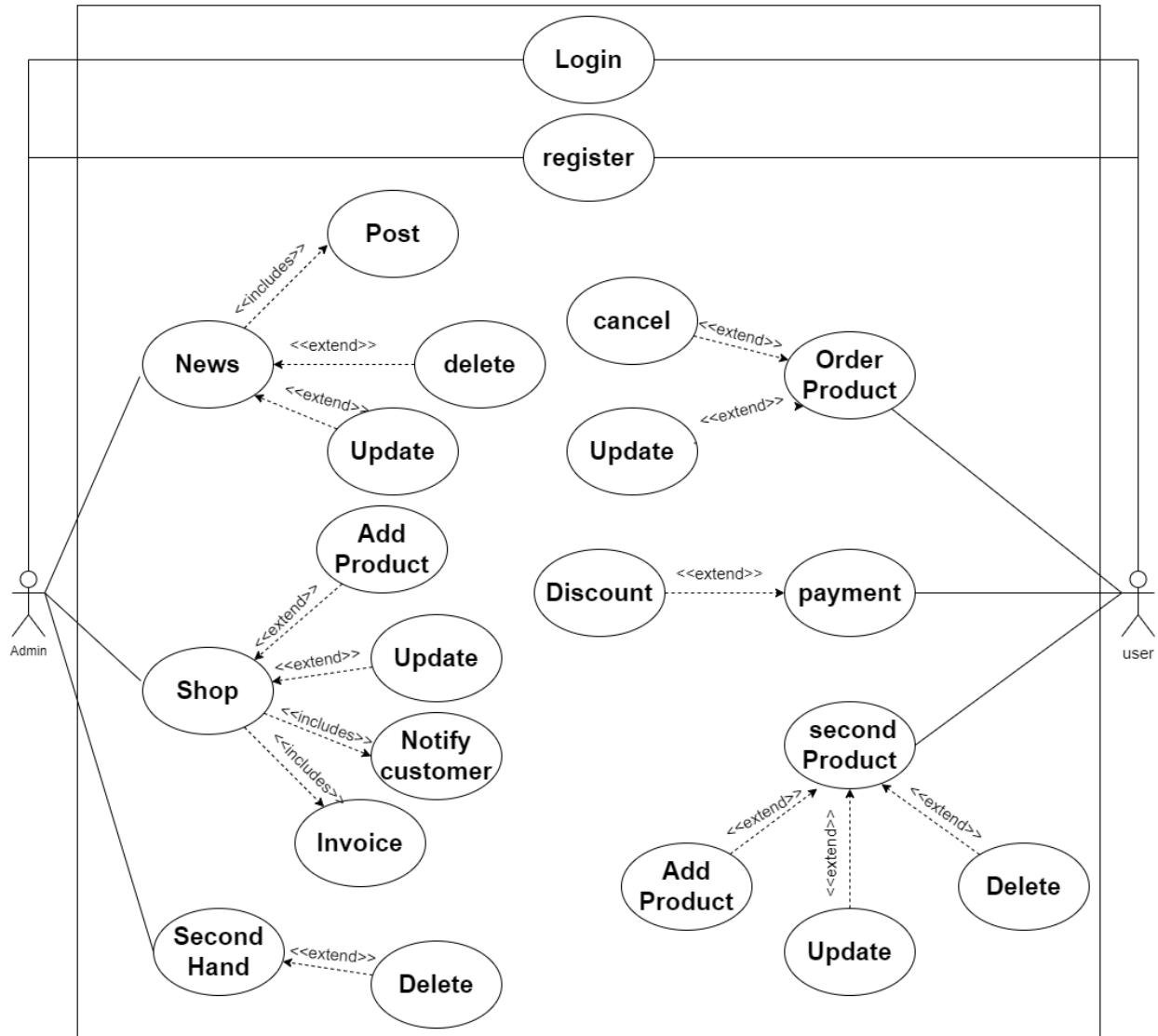


Figure 128: Use-case Diagram

7.4 Appendix-4: ER-Diagram

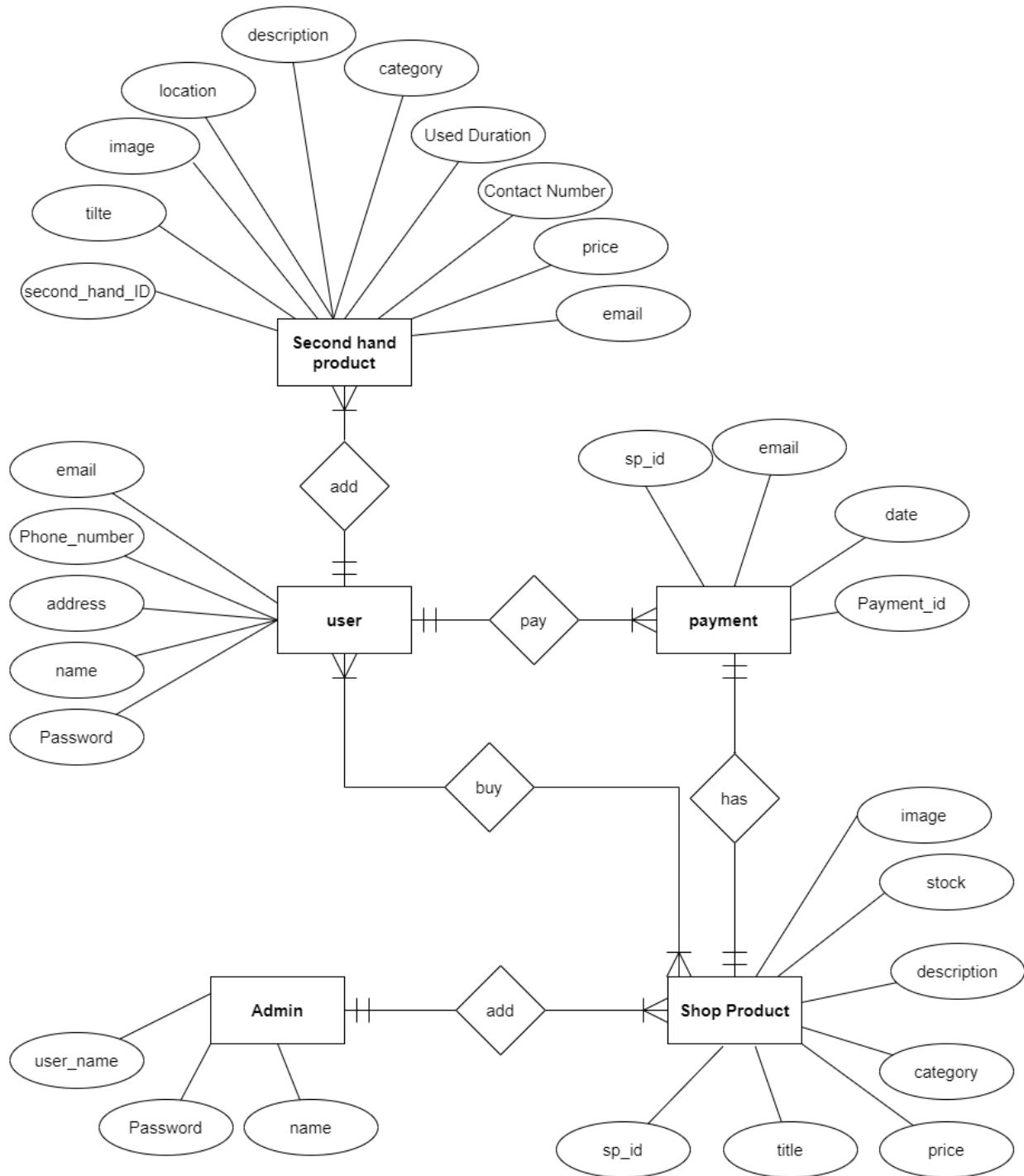


Figure 129: ER-Diagram

7.5 Appendix 5: work break down structure

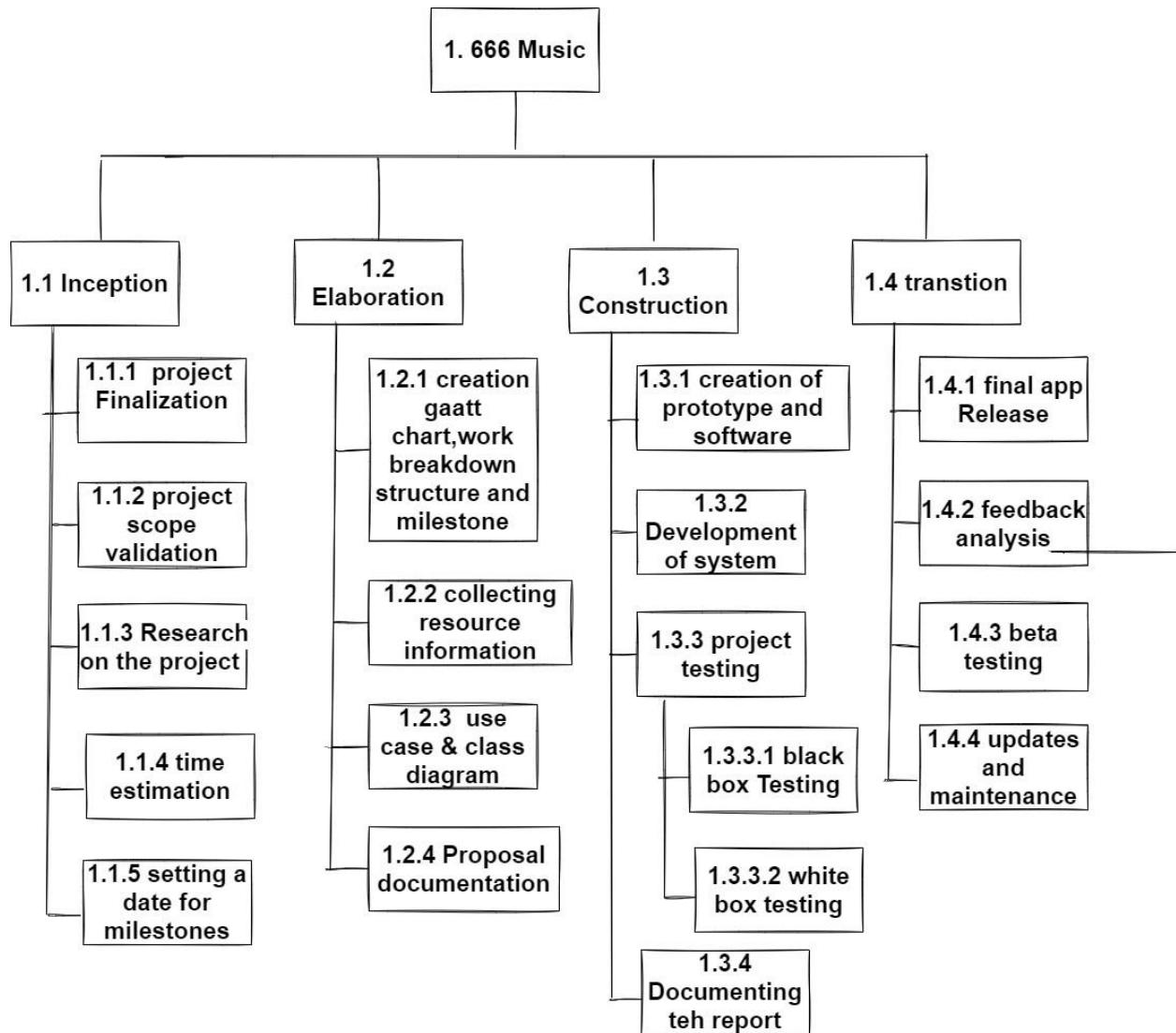


Figure 130 work break down structure

7.6 Appendix 6. Milestones

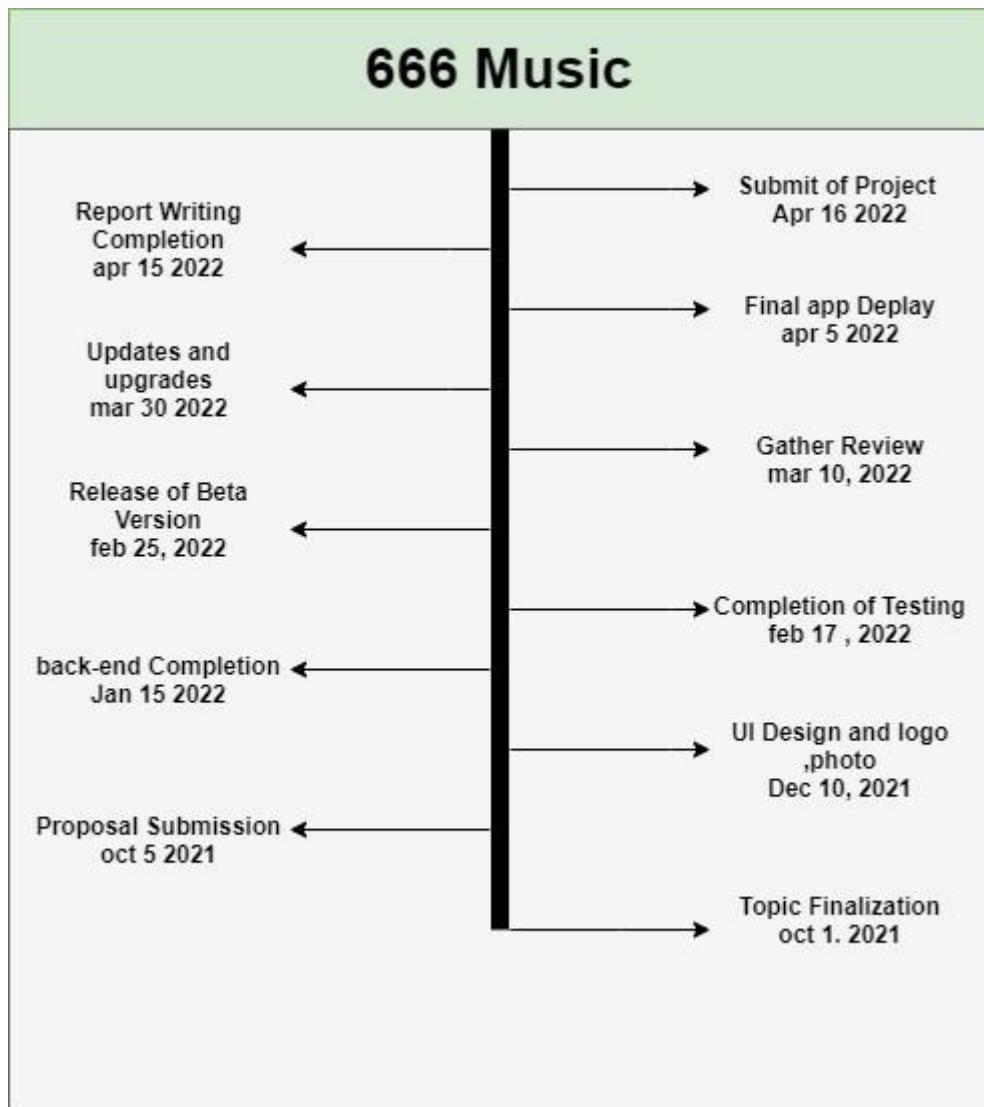


Figure 131 Milestones

7.7 Appendix 7: Gantt Chart

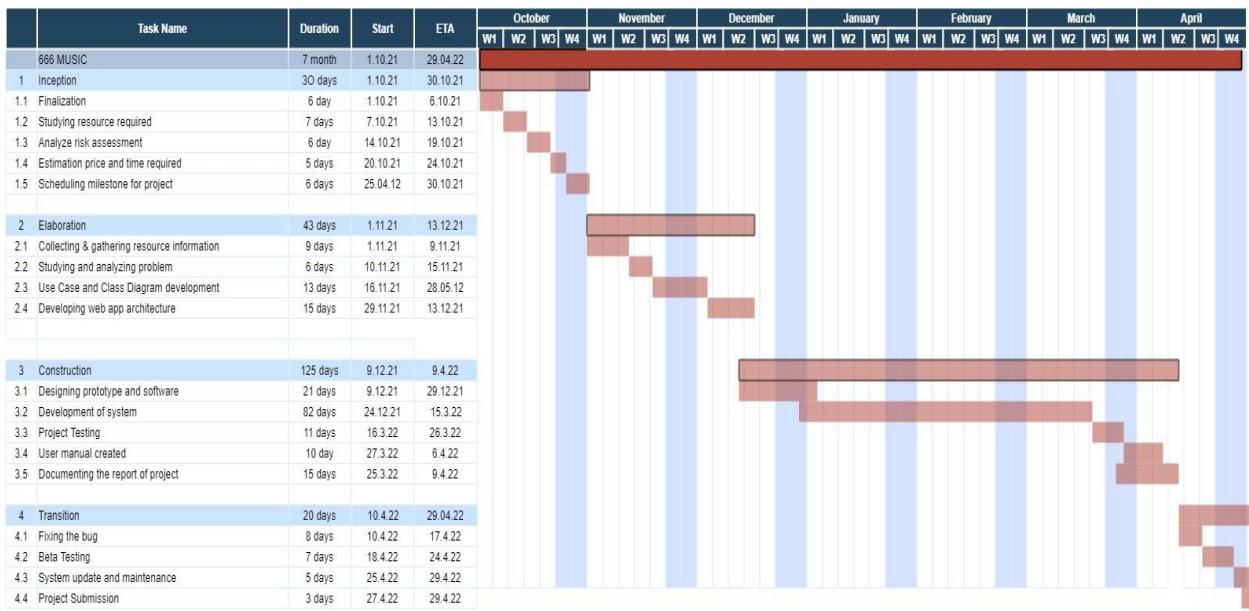


Figure 132 Gantt Chart

7.8 Appendix 8: Risk and Threats

S.N.	Risk and Threats	Probability
1	Research is being disrupted due to a slow internet connection.	High
2	Collecting data and debugging the application may be difficult.	Medium
3	Database creation errors.	Medium
4	On the internet, it is hard to find enough resources.	Medium
5	Users can upload out of content product in secondhand product section.	High
6	Security risk like sql injection, dos attack, etc.	High

7	A hacker can attempt to crack your password by using brute force on your admin panel. These fraudulent programs connect to your website and attempt to get your site's passwords by trying thousands of different combinations.	High
8	One of the most serious challenges to system development is technical faults. There may be technical concerns, such as operating system crashes.	Medium

Table 17: risk analyzing

7.9 Appendix 9: web development

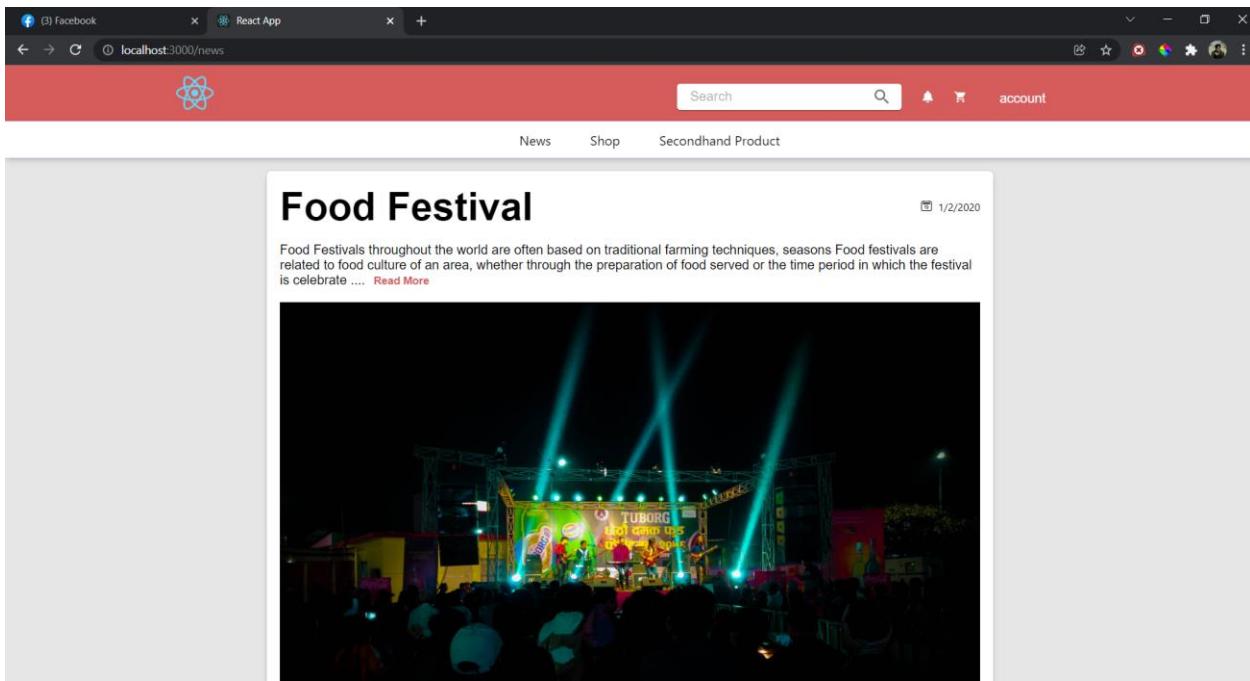


Figure 133: web Development Proof 1

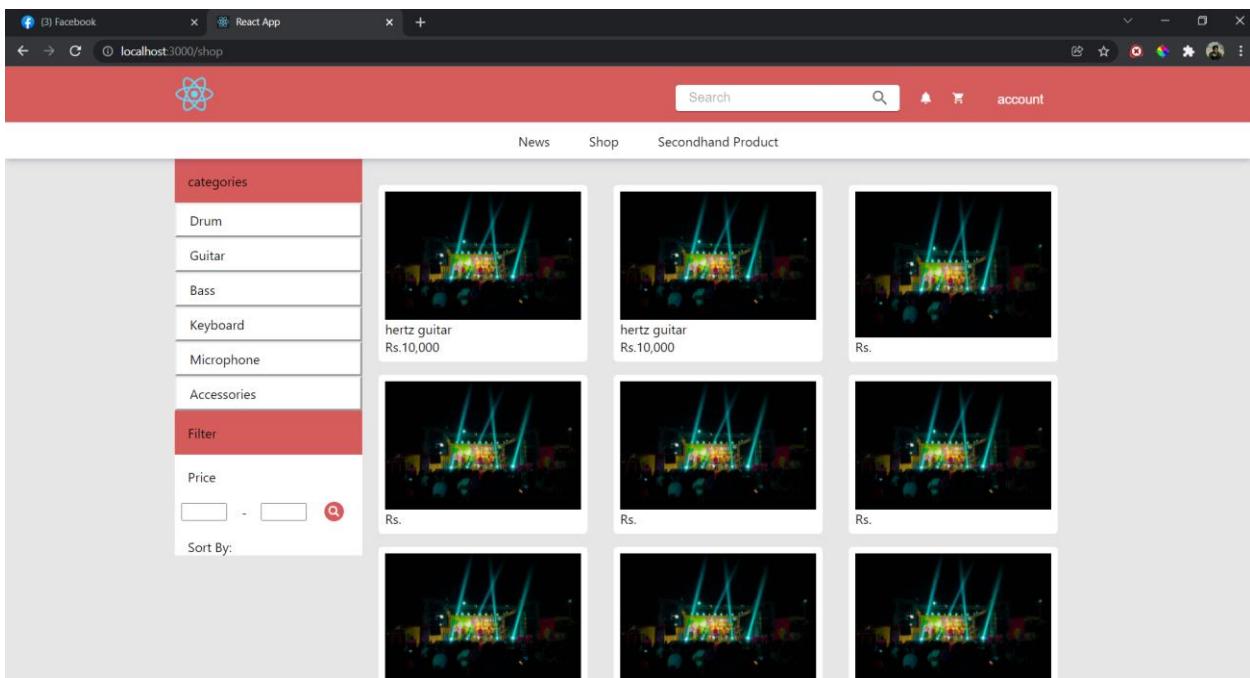


Figure 134: web Development Proof 2

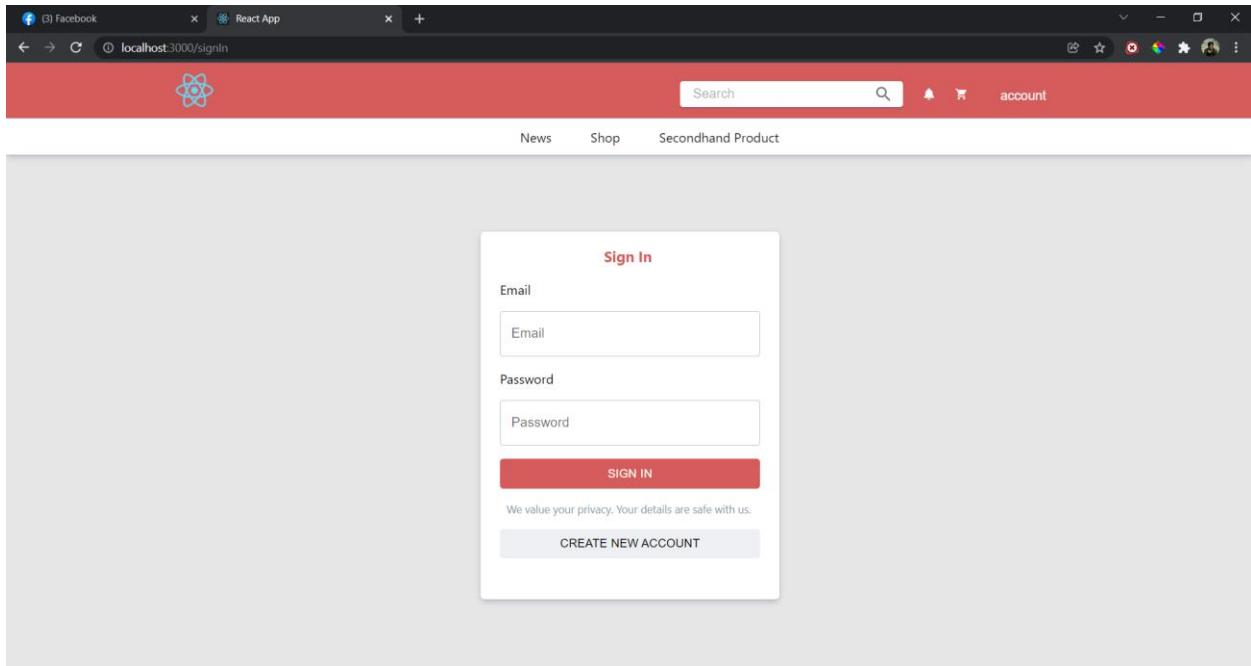


Figure 135: web Development Proof 3

The screenshot shows the Visual Studio Code interface. The left sidebar shows a file tree with various components and pages like 'App.js', 'Navbar.js', 'SignIn.js', and 'NewAccount.js'. The main code editor window is displaying 'NewAccount.js' with the following content:

```

1  import React from "react";
2  import * as si from "./NewAccout.css";
3  import TextField from "@mui/material/TextField";
4  import Button from "@mui/material/Button";
5  import { useFormik } from "formik";
6  import * as Yup from "yup";
7
8  const NewAccount = () => {
9    const formik = useFormik({
10      initialValues: {
11        FirstName: "",
12        LastName: "",
13        email: "",
14        newPassword: "",
15        confirmPassword: ""
16      },
17      validationSchema: Yup.object({
18        FirstName: Yup.string()
19          .max(15, "Must be 15 characters or less")
20          .min(3, "Must be 3 characters")
21          .required("Required"),
22        LastName: Yup.string()
23          .max(15, "Must be 15 characters or less")
24          .min(3, "Must be 3 characters")
25      })
26    });
27
28    return (
29      <div>
30        <h2>Create New Account</h2>
31        <form>
32          <div>
33            <label>First Name</label>
34            <input type="text" name="FirstName" value={formik.values.FirstName} onChange={formik.handleChange} />
35          </div>
36          <div>
37            <label>Last Name</label>
38            <input type="text" name="LastName" value={formik.values.LastName} onChange={formik.handleChange} />
39          </div>
40          <div>
41            <label>Email</label>
42            <input type="text" name="email" value={formik.values.email} onChange={formik.handleChange} />
43          </div>
44          <div>
45            <label>New Password</label>
46            <input type="password" name="newPassword" value={formik.values.newPassword} onChange={formik.handleChange} />
47          </div>
48          <div>
49            <label>Confirm Password</label>
50            <input type="password" name="confirmPassword" value={formik.values.confirmPassword} onChange={formik.handleChange} />
51          </div>
52          <div>
53            <button type="submit" onClick={formik.handleSubmit}>Create Account</button>
54          </div>
55        </form>
56      </div>
57    );
58  }
59
60  export default NewAccount;

```

The bottom right corner of the code editor shows a terminal window with ESLint errors:

```

src\Components\secondProduct\secondProduct.js
Line 4:18: 'css' is defined but never used no-unused-vars
Line 77:29: img elements must have an alt prop, either with meaningful text, or an empty string for decorative images jsx-attr/alt-text
src\Components\shop\product.js
Line 3:18: 'css' is defined but never used no-unused-vars
Line 47:9: img elements must have an alt prop, either with meaningful text, or an empty string for decorative images jsx-attr/alt-text

```

Figure 136: web Development Proof 4

7.10 Appendix.10. Software requirement specification (SRS)

7.10.1 Introduction

As the name implies, the Software Requirement Definition (SRS) Format is a comprehensive specification and description of software requirements that must be met for a software system to be developed successfully. Depending on the type of requirement, these requirements might be either functional or nonfunctional. Because it is vital to thoroughly grasp the needs of customers, interaction between various customers and contractors is carried out. (geeksforgeeks, 2021)

7.10.2 Purpose

The goal of this paper is to create a music store ecommerce web application with a variety of features to help musicians address their problems. It will describe the system's features and how they work in order to improve end-user interaction. The necessary software and hardware are readily available and simple to use. Essentially, the project explains how to manage for better performance and customer service.

7.10.3 Scope

This system was created to meet the needs of a music business that needed to run operations smoothly and efficiently. It is an easy-to-use solution that can lead to a secure, dependable, and quick management system. The following is a list of the system's capabilities.

- It will meet the user's requirements.
- It would be simple to use and have a pleasant user interface.
- It shall be simple to comprehend for both the user and the operator.
- By concentrating just on music products, the price of the product can be reduced.
- Increase client convenience by incorporating an online payment option.
- supplying people with music content to keep them up to date

7.10.4 Definitions and Acronyms:

Term	Definition
DBMS	Database Management System
SRS	Software Requirement Specification
User	Anyone who uses the application
Developer	One who develops the application
Enterpriser	Owner of the shoe's enterprises
RUP	Rational unified Process

7.10.4.1 Overview

This documentation is divided into three sections: the first provides a brief overview of the system. The system's overall description, product perspectives, functions, user characteristics, constraints, assumptions and dependencies, and requirement apportionment are all included in the second section. Specific needs, data and behavioral model descriptions of the system, functional and non-functional requirements, and so on are all included in the concluding section.

7.10.4.2 Overall description:

This documentation is designed to give a comprehensive overview of the music shop web application. It is intended to aid in strategic planning and guarantee that our store has the correct level of information for our long-term objectives.

7.10.4.3 Product perspective

This music store web application for musical instruments project aims to develop a dynamic and interactive web application system for checking purchase and sales information. It has a larger storage capacity and allows for easy and quick recovery of data. It reduces the workload of those who are involved in the present manual system, and work becomes much more efficient. The details of the sales and purchases will be

maintained in a database. The user will be provided all of the details of each particular music instrument, and they will be able to search for a variety of products.

7.10.5 Software Functions and characteristics

The main goal of the music store web application is to sell products from various brands online and to give a variety of tools for effectively managing the products. The backend system in this project has both customer and admin modes, making it quite powerful. Customers will have access to customer-facing features, while administrators will have access to customer-facing and inventory-management features. The following are descriptions of customer and admin modes:

7.10.5.1 Customer mode

Admin mode can conduct any function; however, customers can only see their own data. The customer will be able to view and update his personal information and own product detail on secondhand product. The customer can examine his shipments and order information. In this online application, customers have limited access. Customers will gain online purchasing experience and be able to sort shoes by category.

7.10.5.2 Admin mode

Admin will keep track of all of the customer's information and details. The customer's record can only be edited and updated by the administrator. The list of customer details is visible to the administrator. Admins have complete access to the product and can edit, update, add, and manage it. The list of all shipments can be seen and edited by the administrator. Admins can also handle orders and produce payment details reports.

7.10.5.3 Assumptions and Dependencies

- The end users of the system software are assumed to have basic level of computer knowledge.
- The user must have a basic understanding of how to navigate the online pages.
- The user may have to deal with a server crash.

7.10.6 Memory constraints:

The system will take up 300 MB of storage.

7.10.7 User Interfaces

- Front- end language: React Js,
- Code editor: Visual studio code
- Back-end language: Node.js

7.10.8 Hardware Interfaces

Computer: To complete the project's tasks, you will need a laptop or a computer. It is also necessary to create the database and do the study. The project will be easier to complete if you have a PC with a good internet connection.

7.10.9 Software Requirement:

Various software tools are required for the project. They are:

- ◆ Database: My SQL
- ◆ Testing: windows
- ◆ Report: Microsoft word
- ◆ Browser

7.10.10 Functional Requirements

Product features or functions that developers must implement for users to complete their duties are known as functional requirements. It is critical that both the development team and the stakeholders understand them. The behavior of a system under specified situations is described by functional requirements.

7.10.10.1 Register

To use the system, the user must first register. When the user completes all required fields, the program successfully registers the user and saves the data to the database.

To register, users must give information such as their name, email address, and password.

7.10.10.2 Login

The user logs in with the username and password they created in the system. The system verifies and grants access to log in. The user will be unable to log into the system if the username and password do not match.

7.10.10.3 View and search product

After registering, the user can browse the numerous instruments and products by category. They can also look for different accessories based on their preferences. The product's complete specifications, including its price, are accessible.

7.10.10.4 Stock management

The stock quantity of the item available in the system can be edited by the administrator as needed. The database system will keep track of all the stock in the store. Any stock changes will be reflected in the system database.

7.10.10.5 Add to the cart

The user can look through the products and choose what they want. If the user wants to purchase it, he or she can do so by using the add to cart feature. For that person, it will be added to their cart.

7.10.10.6 Sales details

The administrator gets access to the store's sales and purchase information. The user can also see the specifics of their purchase. The system will provide a list of products that have been sold.

7.10.10.7 Payment

If a user wants to purchase a product after adding it to their cart, they must first select payment information. Payment can be made via a variety of digital methods, including credit cards, online banking, and so on.

7.10.11 Non-functional Requirements

Security, reliability, performance, maintainability, scalability, and usability are all examples of nonfunctional requirements. Across the many backlogs, they serve as limitations or restrictions on system design. It has an impact on how the user feels.

7.10.11.1 Performance Requirements

This part ensures that the user interface, experience, and performance of the project are all optimized. By reducing HTTP queries, increasing data loading time, avoiding CSS expressions, and placing style sheets at the top and script at the bottom, the web application's performance can be improved. The system should be available 24 hours a day, seven days a week. The system must be interactive, and there must be minimal delays.

7.10.11.2 Safety Requirements

To store customer and product data, the system will use a secure database. To avoid any problems, the administrator and the user should each have their own account. Customers can buy and see products, while administrators have complete control over product updates and deletion. In the middle of the project, the database generated may crash or be corrupted, causing all the data stored to be lost. As a result, we should make a backup of the data we have saved. To avoid any problems, we should employ certified resources to store the data, with an additional backup in the cloud or on storage devices.

7.10.11.3 Software system Attributes

7.10.11.4 Reliability

- Application and database failures should be rare, and a crash recovery solution should be in place to protect data in the event of a database failure.
- There should be no system failures.

- If the error is caused by the user, an appropriate error message should be displayed.
- The online application's products should be trustworthy.

7.10.11.5 Security

- Other users should not be able to see the user info.
- To access the data, the user needs login with the relevant username and password.
- Only the administrator has the ability to create new accounts, add, delete, or amend product information.
- The software must be delivered or handled by the organization's administrative user.

7.10.11.6 Maintainability

End-users should be able to manage and amend their personal information within the application as needed. The bookmark feature should function effectively, providing them with a better platform to keep track of location data as needed. The program should be maintained and updated on a regular basis to ensure that it is bug-free. The elements of design should be recorded or presented in a logical order.

7.10.11.7 Portability

This application should be easy to use and solve the problem of customers who want to buy a product that meets their needs. This online application's user experience and interfaces should be improved.