

Tech Bazaar

Final Year Project – I



TECH BAZAAR

Best Tech Website

FYP Team

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We shall soon start the implementation of the project after the acceptance of documents.

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1: Document Version

Table 1- Version of Vision Document

Version	Date	Description	Authors
V1.0	05/01/2022	Updated: problem statement Updated:Functional Requirement	Hamza Ahmad Bhutta Fahad Usman Sheroz Khalid
V1.1	14/04/2022	Updated: UML diagrams	Hamza Ahmad Bhutta Fahad Usman Sheroz Khalid

1.1 Introduction

1.1.1 : Purpose

The purpose of this document is to highlight, analyze and to have a better understanding of the high-level requirements of the system. It focuses on the capabilities needed by the stakeholders, and the targeted users, and why these needs exist. This will help us in identifying and reducing the potential risks of the system.

1.1.2 : Objectives

- People will get web based application for trading their merchandises.
- Seller will be able to launch the marketing campaigns through appropriate channels.
- Advertisement will become more easier for seller to handle with the help of software.
- Sales analysis enable the seller to keep track of their growth and marketing campaign.
- It will make easier for customer to get track of interested goods
- Advertisements will be relevant to customer interests which will grow sales of goods.

1.1.3 : Scope

This Document applies to TechBazaar, which is a business marketplace for retailers and Vendors. The application will help connect active Vendors who have good quality of goods to new customers and will help them in mutual benefits like growth in sales and finding goods at moderate price etc. The application will provide a medium for small scale business to promote their goods with the help of automated advertisement assisted with sales analytics and showing their promotions to interested customers through notifying system under considerable charges.

1.1.4 : Abbreviation, definition

Following are the abbreviation and definitions used in the document:

- TechBazaar: The marketplace for Vendors and customers
- Customer: Person who wants to buy something.
- Stakeholders: People who are taking risks of loss for benefits.

1.1.5 : Intended Audience and Reading Suggestions

The intended audience for the following document are developers and the users of the application. The main audience are:

- **Development Team** will use this document to design and develop a web based application according to the customer requirements.
- **Users** will use this document to learn about the features of the system and get information about how to use the system.
- **Testers** will use this document before writing test cases because this will act as a contract between customer and contractor. Tester will validate user requirements.

The rest of the document contains the functional requirements, non-functional requirements, deployment info and dependencies.

1.2 Positioning

Positioning tells us that how our application grows, and we can earn money through this application in the market, it defines business opportunity and defines the Problem statement that why we need to develop this application.

Details are given below:

1.2.1 : Business Opportunity

A lot of opportunities will come if this application start to work in present modern era. New jobs will be created in Vendors stores. New and innovative products could be launched through this application, will be available. This application will assist in goods promotion across its relevant interested customers. It will assist in Vendor business growth with its modern techniques and tools. Not only Vendors get revenue from it but its development team and owner of this application will also be able to get their commission from its users. Automated advertisement assisted with analytics tools promises in the growth of business.

1.2.2 : Problem Statement

Table 1 Problem Statement

The problem of	People don't have enough budget and traffic to create their own web based application for their businesses. They need an online application to establish their online store and emphasize their products in the market which are low on sales. Moreover buyers mostly don't get satisfy about quality & courier method. For computer and electronic accessories specifically.
Affects	The retailers, Vendors and their customers. Local businesses that want to promote their goods and need a proper advertisement channels assisted with modern tools.
The impact of which is	Local brands not having a centralized platform for promotions and advertisements to influence their business growth.
A successful solution would be	The web application will provide a medium for small scale business to promote their goods with the help of automated advertisement assisted with sales analytics and showing their promotions to interested customers through notifying system under considerable charges.

1.2.3 : Product Position Statement:

Table 2 Product Position Statement

For	<ol style="list-style-type: none"> 1. New brands, Vendors and retailers looking for the best solution for promotion, growth in business and profit. 2. Customers looking for goods at moderate price with considerable quality.
Who	Are looking for a centralized platform where their goods and products could be featured, and they could be sold right away on the basis of their categories.
TechBazaar	Is a web application based software solution.
That	<ol style="list-style-type: none"> 1. Provides a marketplace to the new brands, Vendors and retailers where they can promote their product, track and influence their growth in business and to increase profit. 2. Provide goods at moderate price with considerable quality.
Unlike	Platforms which don't offer the functionality of analysis and marketing campaign. Don't attract customers.
Our product	Provide a medium for small scale business to promote their goods with the help of automated advertisement assisted with sales analytics and showing their promotions to interested customers through notifying system under considerable charges.

1.3: STAKEHOLDER AND USER DESCRIPTIONS

1.3.1 : Market Demographics:

The target market segment includes the people who readily use their mobile phones and laptops. The users are expected to be connected to internet in order to reach application. To gain the attention of consumers we have to use platforms where consumers can easily access our application.

1.3.2 : Stakeholder Summary:

Table 3 Stakeholder Summary

Name	Description	Responsibilities
FAST-CFD Faculty	Have copyrights of our Final Year Project	Provide resources and help to develop this application.
Mr. Masood Habib	Supervisor of the project.	Help the development team to develop the project.
Mr. Umar Aftab	Co-Supervisor of the project.	Help the development team to develop the project.
Hamza Ahmad Bhutta	Member (student)	Development of project.
Fahad Usman	Member (student)	Development of project
Sheroz Khalid	Member (student)	Development of project

1.3.3 : User Summary

Table 4 User Summary

Name	Description	Responsibilities	Stakeholder
Vendor	High priority end user of the system.	1. Launch campaigns to promote their products. 2. Approach the Customer the by using the search filter.	Self
Customer	High priority end user of the system.	1. Send offer against the launched campaigns by the brands 2. Create order and deliver it after completion.	Self

1.3.4 : User Environment

In order to use **TechBazaar.com** system users are required to have internet availability
And Browser.

1.3.5 : Stakeholder or User Needs

Table 5 Stakeholder per User Needs

Need	Priority	Concerns	Current Solution	Solution
Secured access	High	Privacy of user data.	None	Management of user access with unique username and password. Also, implementation of md5.
Scalable	High	Security is a big concern with respect to data especially images of person can be stolen. Application can be used by kidnappers also.	None	Allow multiple users to access the application at the same time.
Easy-to-use	High	Users can easily use the application.	None.	Provide a user-friendly interface.
Flexible	Moderate to High	Each user may have a custom-made experience for itself.	None.	Users can switch between application modes according to their needs.
Responsive	Moderate	None	None	User upload response time will be kept minimum.

1.4: Product Overview

This field is used to give overall view related to product. The information gives in this section must be accurate precise, specific and relate to the project, which describes the perspective and features of the product.

1.4.1 : Product Perspective

This product will be a web-based application and need a browser with internet connection. To use this application user must registered first by using their active email or login through their social accounts (Facebook, Instagram, and Gmail). After that user can login to the system and access the functionality provided by the application.

1.5: Dependencies and Constraints

This section is defining the dependencies and constrains of the TechBazaar. Below is the detailed description.

1.5.1 Dependencies

The default language of this application is English, It Requires laptop & smart phone. This application depends on phone number verification by using email service and on network. Network on the user's phone will be available everywhere a user may go so that emergency messages may be speedily delivered

1.5.2: Constraints

The constraints of our system are listed below:

1.5.2 Security

The image of user is encrypted so that no one steals the data and provides privacy to users by two-way authentication, first with phone number verification and the second one with login.

1.5.3 Usability

A lay man who knows how to use the internet can easily interact with the system. Language will be simple to understand for layman. The bounce will be minimum so the user can easily move backward and forward. Through these effects user interface will be easy to use.

1.5.4 Responsiveness

The response time of the system will be maximum 25 seconds. The system will load any of the page and in 20 to 25 seconds.

1.5.5 Maintainability

The system should be developed in such a way that it is extensible. It should be easy to incorporate new features requirements or accommodate a change in the existing requirements.

1.6: Functional Requirements

- Portals for both Sellers and customers.
- Sellers and customers should be able to login into their account.
- The Buyer can see products through ads & look into his/her desired products.
- Buyer can save his/.her desired items as wishlist to purchase later
- Ads shown to buyer on basis of wishlist.
- Email marketing would help to engage customer attraction
- Live chat and messenger option would provide easiness to customer
- Price wise commission system would implemented
- It provides return and refund policy.
- Ads will created automatically no admin person needed
- Sales will check by data analysis.
- Provides return and refund policy for customer satisfaction
- Notifies about wishlist base discount items
- Provides Payment methods
- The user will receive notification about any changes in order
- Product quality Negotiation before payment for customer satisfaction.
- Rating and reviews will collect to modify enhance system if needed.

1.7: Other Non-Functional Requirements

1.7.2. Availability

The system should be always available. It should be ensured that there should be minimum or no downtime to ensure better user experience. The system should be reliable. It should yield correct results if a user performs searches for a person.

1.7.3. Reliability

Our application will provide regular information and notifications about discounts and new products.

1.7.4. Testability

The application should be testable. A separate test environment should be set up where testers and the Quality Assurance engineers can test the application for bugs and/or incomplete or missed requirements.

1.7.5. Maintainability

The system should be maintainable. The system should be able to adapt new features. Previous functionality should not be disturbed in case of adding new functionality.

1.7.5 Accessibility

The system should be accessible to the Vendors and customers only at any location.

3. Use Case

3.1 : System Use Case Diagram



Figure 1 Use Case

3.2 : High level Use Cases

3.2.1 : Register user

Use case ID	UC-02
Use case name	Register
Actor	Vendor, Customer
Type	Primary
Description	User will enter their details into the system. System validate customer's details and saves into the database.

3.2.2: Product Catalog

Use case ID	UC-02
Use case name	Product Catalog
Actor	Customer
Type	Primary
Description	Users can view products/items on system. A web page containing all accessories will show to user.

3.2.3: Analyze Sales

Use case ID	UC-03
Use case name	Analyze sales
Actor	Vendor
Type	Primary
Description	To Analyze records of user's sales and purchasing. To collect review about which products are more selling and which product makes less selling.

3.2.4: Confirm package

Use case ID	UC-04
Use case name	Confirm package
Actor	Vendor, Customer
Type	Primary
Description	Customer make payment receives his/her shipping system notifies product receive successfully points deduct from his/her wallet and package is confirm for both vendor and customer.

3.2.5: Setup advertisement

Use case ID	UC-06
Use case name	Setup advertisement
Actor	Vendor
Type	Primary
Description	Ads of products shown to both users .Ads also be shown on wishlist of customer. Ads will created automatically.

3.2.6: Product Checkout

Use case ID	UC-07
Use case name	Product Checkout
Actor	Customer
Type	Primary
Description	Select product quantity ,add shipping address and payment method.

3.2.7: Add in Wishlist

Use case ID	UC-08
Use case name	Add in wishlist
Actor	Customer
Type	Primary
Description	User can add his/her desire product in wishlist for later.

4.1 Expanded Use Cases

The features of our system are given below. These are the major features which has been described below

4.1.1: Register user

Use case name	Register user
Actor	Vendor, Customer
Type	Primary
Description	User will enter their details into the system. System validate details and saves into the database.
Pre-conditions	User is not registered before. User need to access system through web browser
Post-conditions	System creates a new account for the new user.
Noral flow	<ol style="list-style-type: none"> 1. User provide their details. 2. System save details. 3. System setup/displays product. 4. System shows the message after setup successfully.
Alternate Scenario	<ol style="list-style-type: none"> 2. If user details are invalid <ol style="list-style-type: none"> i. Display the message of Invalid details. ii. Return to 1.

4.1.2: Manage Product

Use case name	Manage Product
Actor	Vendor
Type	Primary
Description	Users can view products/items on system
Pre-conditions	Users must provide details.
Post-conditions	Users able to see products & perform activities
Normal flow	<ol style="list-style-type: none"> 1. Users give detail. 2. System save details 3. System display details of user.
Alternate Scenario	If details invalid make changes according to new detail.

4.1.3: Confirm package

Use case name	Confirm Package
Actor	Customer, Vendor
Type	Primary
Description	Customer make payment receives his/her shipping system notifies points deduct from his/her wallet and vendor will receive his money when shipment received by customer verified by courier services.
Pre-conditions	Customer make payment regarding project points deduct from wallet
Post-conditions	Customer receive product system provide notification
Normal flow	<ol style="list-style-type: none"> 1. Customer make payment 2. Payment save on wallet 3. Customer receives shipment 4. Points deduct from wallet
Alternate Scenario	If customer not receive package points remain in wallet as before.

4.1.4: Add in Wishlist

Use case name	Add in Wishlist
Actor	Customer
Type	Primary
Description	User can add his/her desire product in wishlist for later.
Pre-conditions	The user want to purchase product for later.
Post-conditions	System save user's desire item in wishlist.
Normal flow	<ol style="list-style-type: none"> 1. User select the desired product 2. User save item in wishlist 3. System save activity in database. 4. System later show product to user when needed.
Alternate Scenario	N/A

4.1.5: Analyze Sales

Use case name	Analyze Sales
Actor	Vendor
Type	Primary
Description	To Analyze records of user sailing purchasing to know which products don't have enough sales.
Pre-conditions	Identify number of products
Post-conditions	Show ratio of sales purchasing of products
Normal flow	<ol style="list-style-type: none"> 1. Identify units sold. 2. Track performance is sailing purchasing. 3. Record all data. 4. Make ratio to analyze sales
Alternate Scenario	N/A

:

4.1.5: Pay in installments

Use case name	Pay in installments
Actor	Customer
Type	Primary
Description	Customer paying a bill in small portions throughout a fixed period of time.
Pre-conditions	Customer chooses Pay in installments options.
Post-conditions	Customer will able to make payment in parts on base condition provided.
Normal flow	1. Customer select installment options 2. System shows information regarding option he chooses 3. Customer makes payment in parts as per conditions
Alternate Scenario	If Customer fails to pay system give notification.

:

4.1 : Operation Contracts

4.5.1: OC1

Name	Manage Product(list,ads,notifications)
Type	System
Responsibility	It is used for user to view product and perform other activities.
Cross Reference	Manage Product (UC-02)
Output	Display the filtered result of search.
Precondition	User must provide authenticate details
Post-condition	Users able to see products & perform activities

4.5.2: OC2

Name	Analyze (products)
Type	System
Responsibility	It allows the user to track ratio of sailings.
Cross Reference	Analyze Sales (UC-03)
Output	Display the filtered result of search.
Precondition	Track number of products.

:

4.5.3: OC3

Name	View(Prices,Items,Information)
Type	System
Responsibility	It initiates user to.
Cross Reference	List Products (UC-04)
Output	Shows notification of start campaign.
Precondition	Must have Authenticate account
Post-condition	View all Products and details along it

5.1: Architecture Diagram:

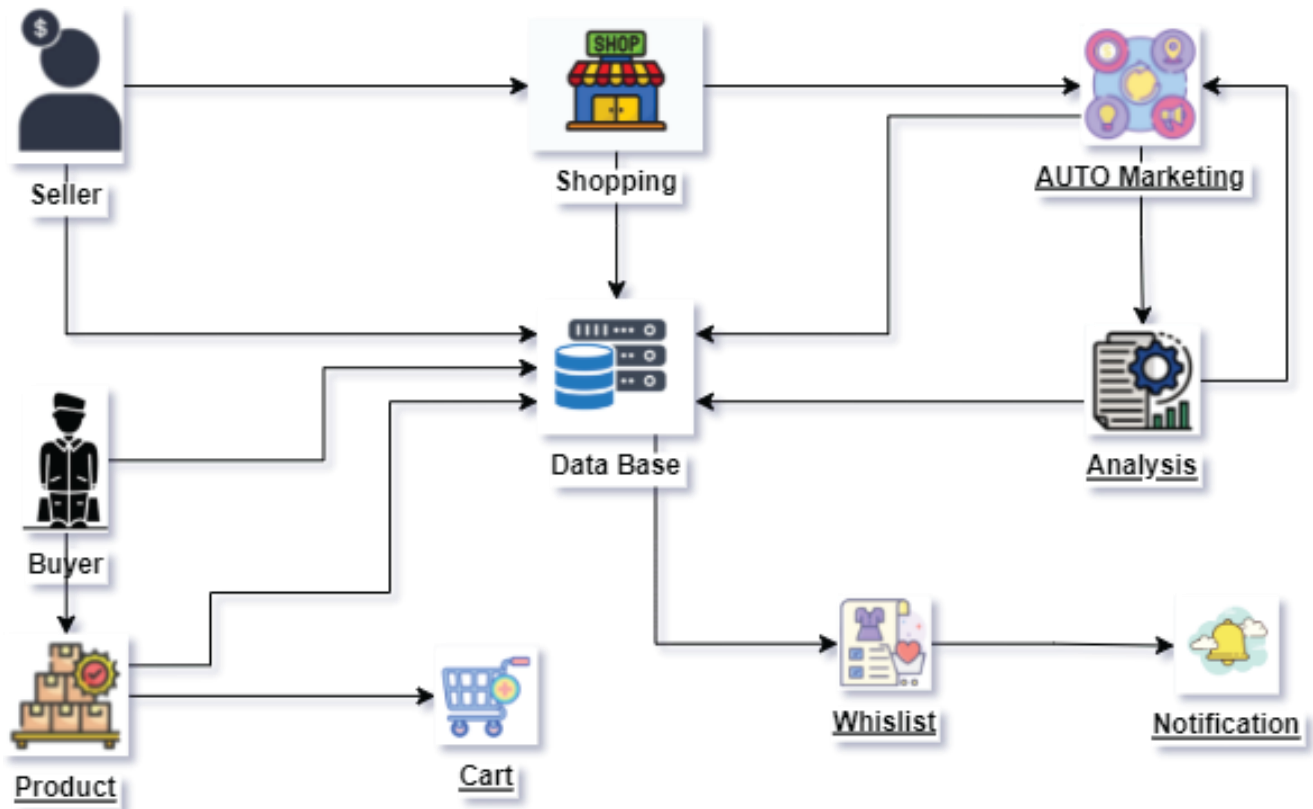


Figure 2 Architecture Diagram

5.2: Component Diagram:

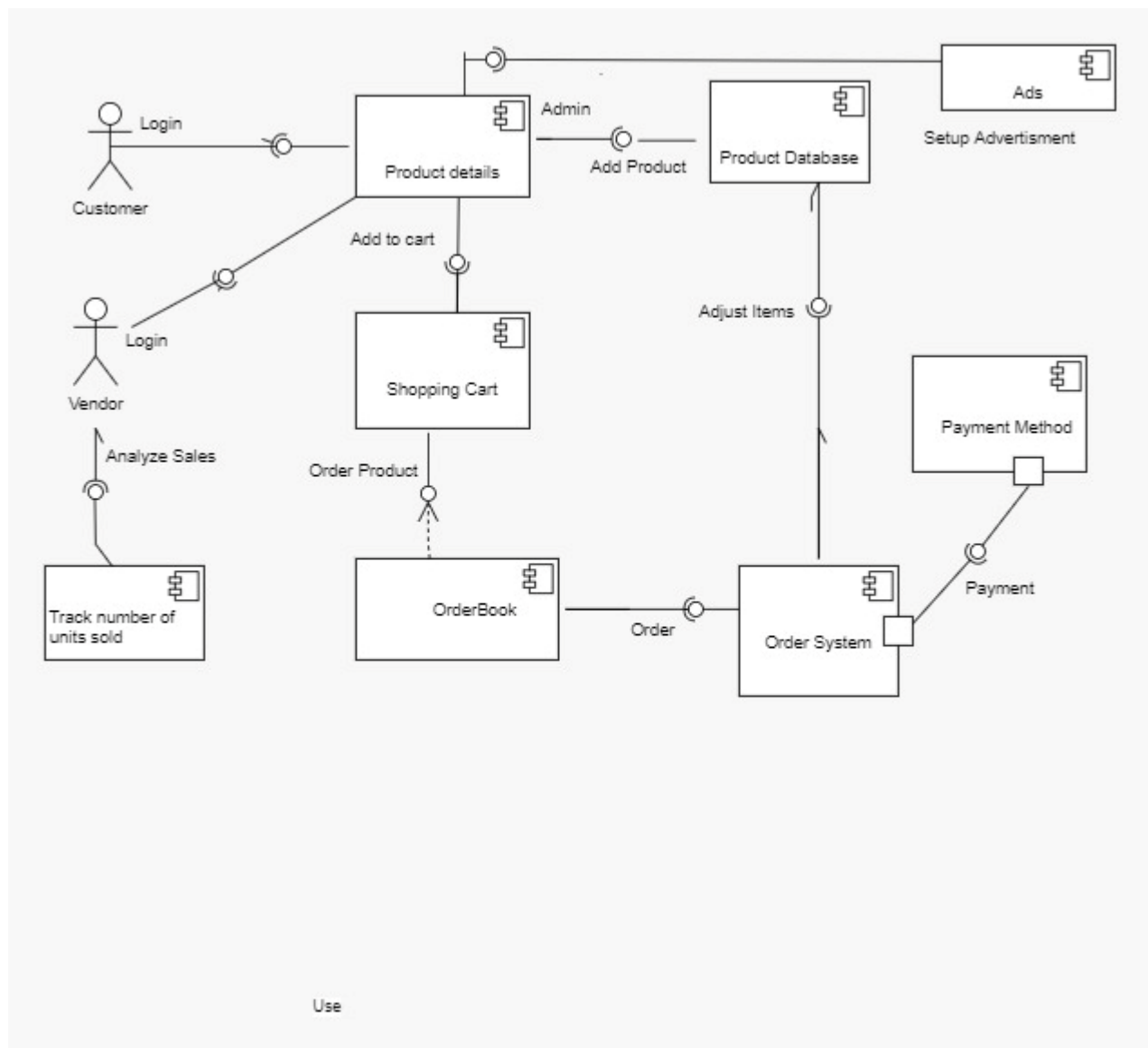
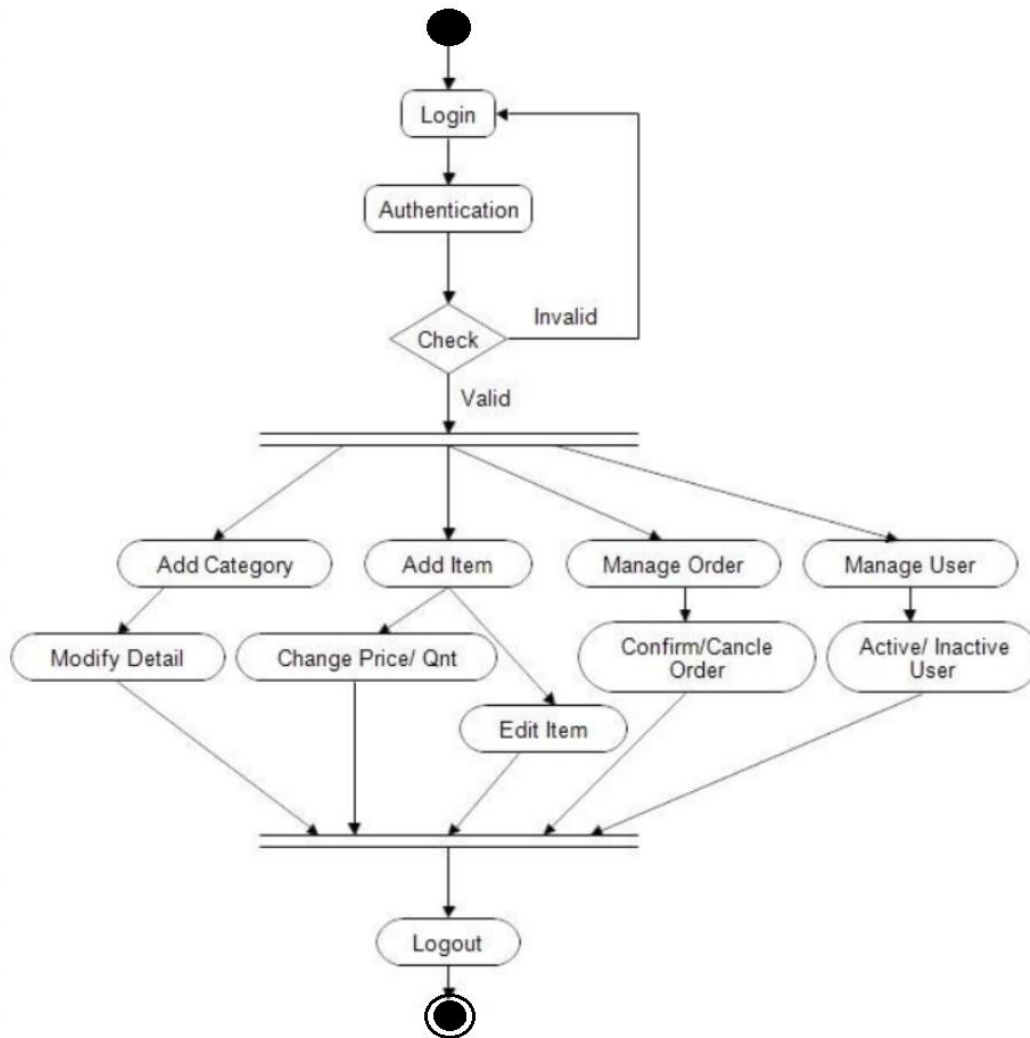


Figure 3 Component Diagram

5.3: Activity Diagram:

Activity Diagram for Admin Side



Activity Diagram for Admin Side

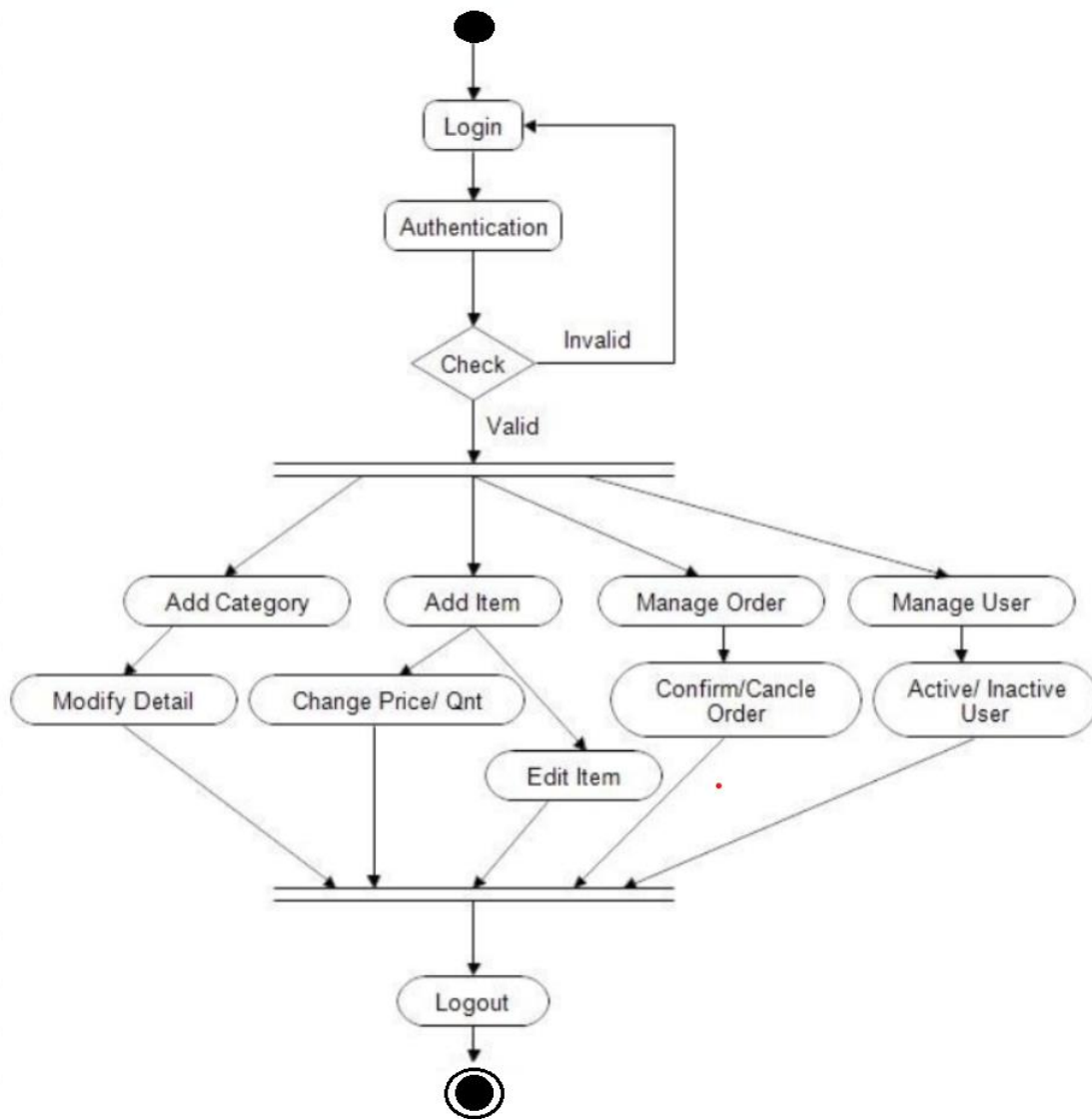


Figure 4 Activity Diagram

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5.4: Package Diagram:

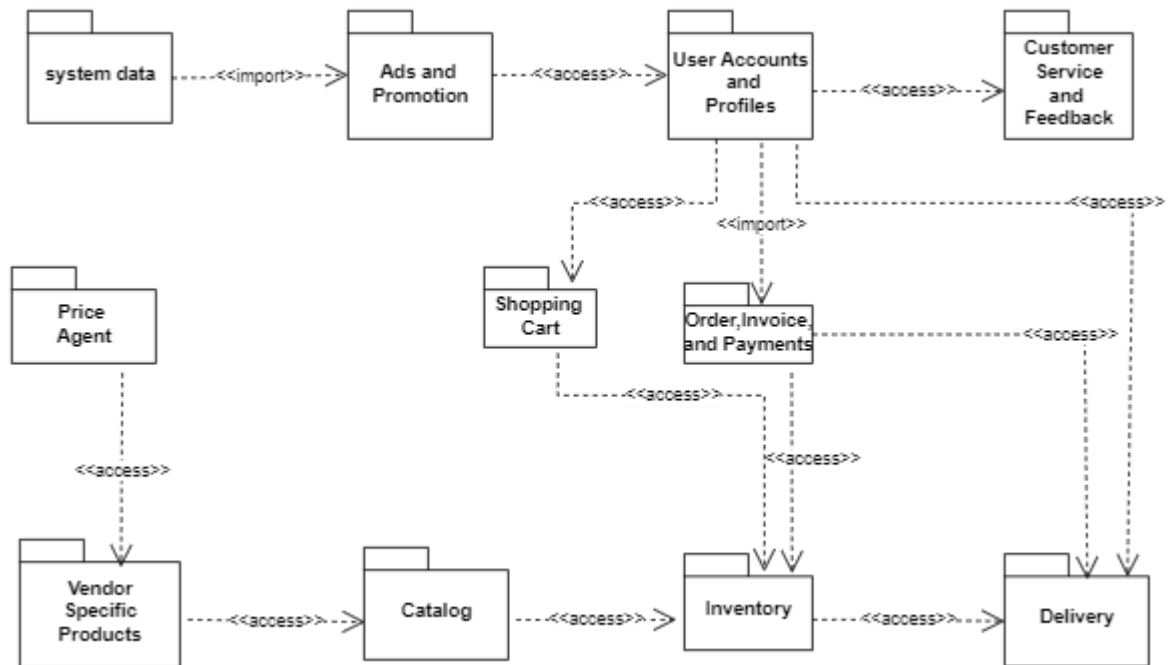


Figure 5 Package Diagram

:

5.5: Data Flow Diagram:

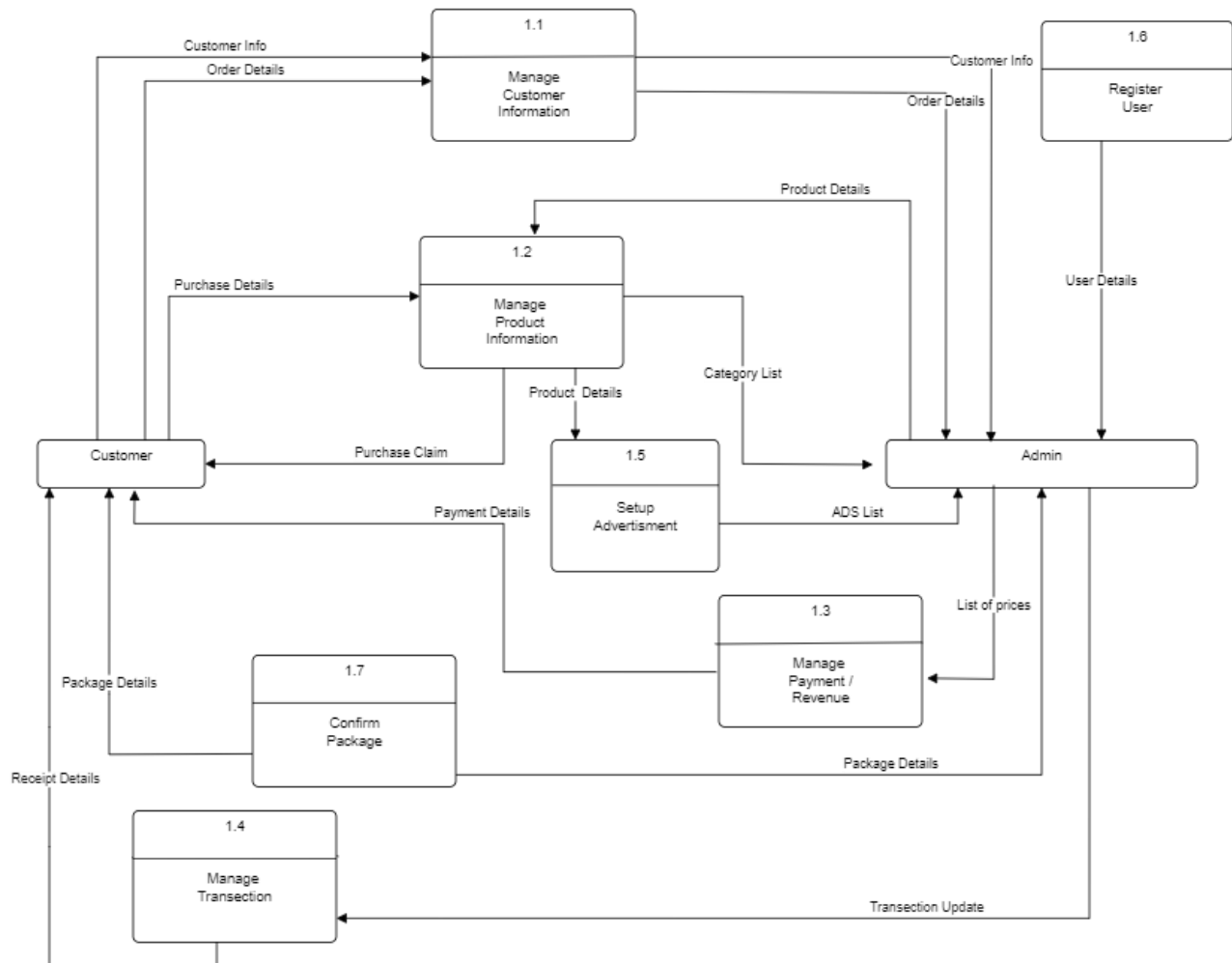


Figure 6 Data Flow diagram

:

5.6: System Sequence Diagram

5.6.1: Register:

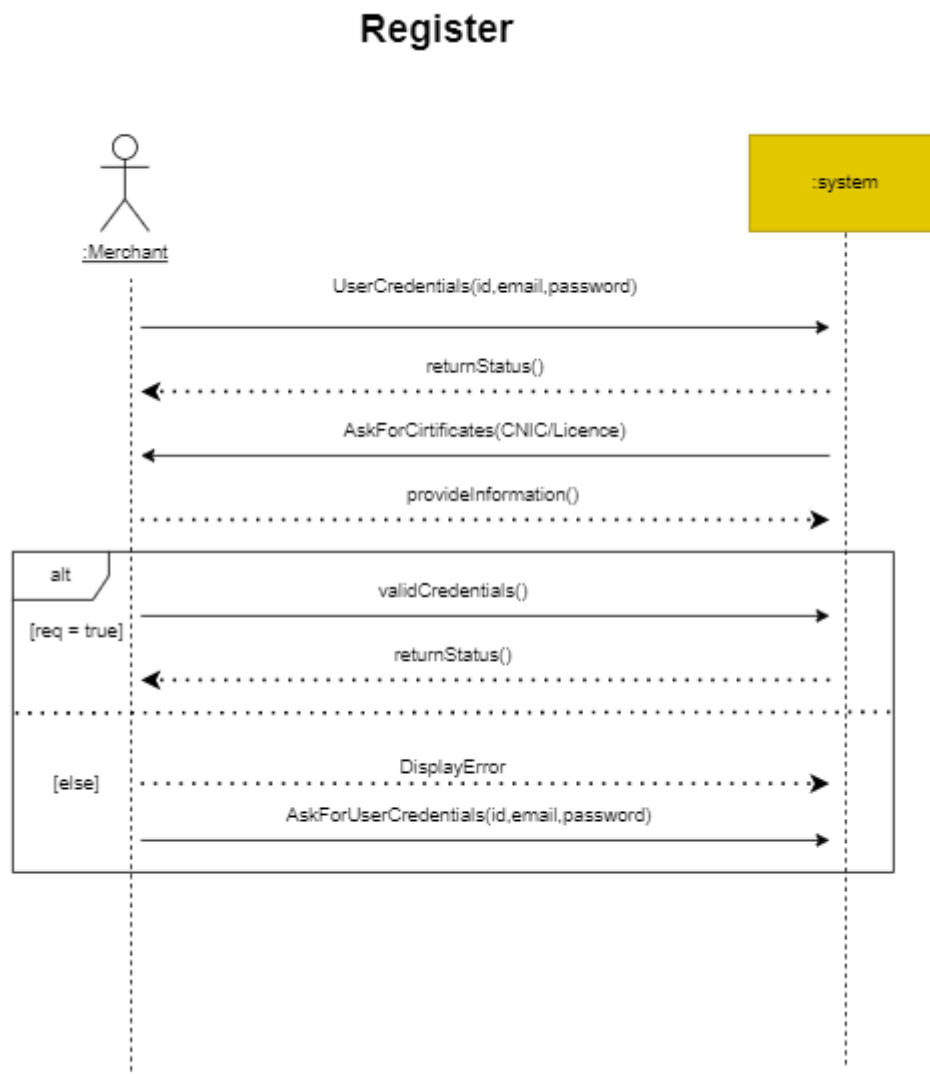


Figure 7 Register SSD

:

5.6.2: Manage Product:

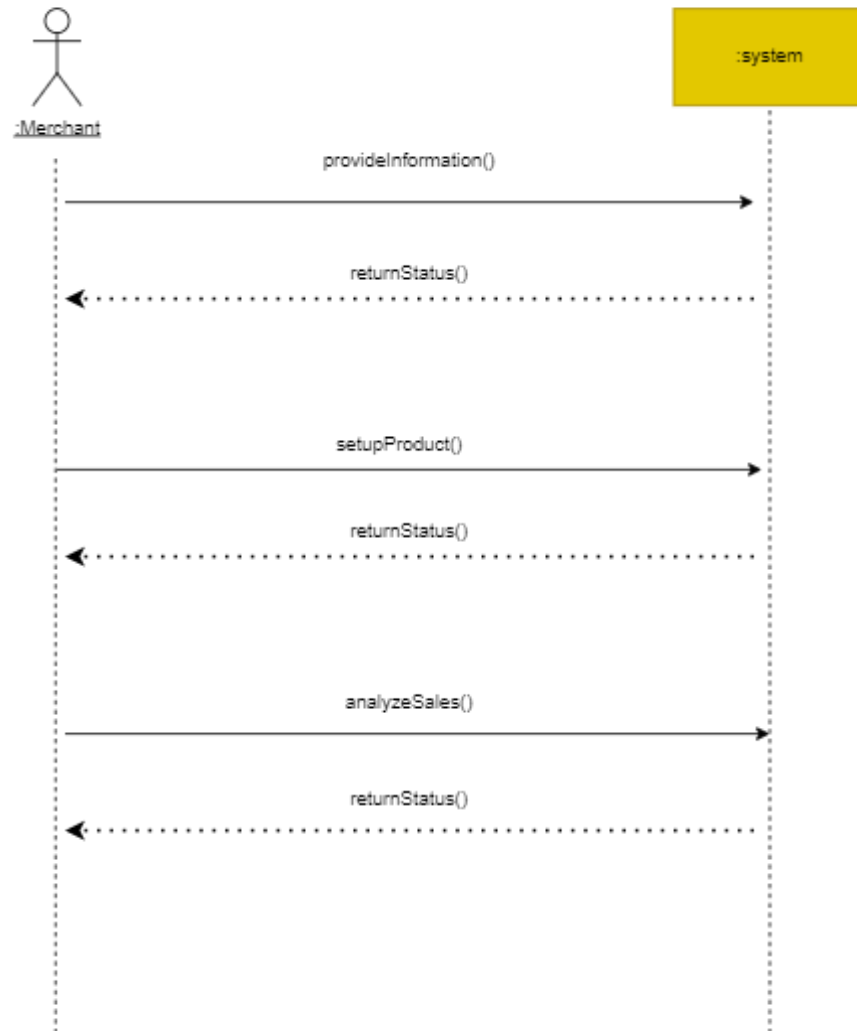


Figure 8 Manage Product SSD

:

5.6.3: Analyze Sales:

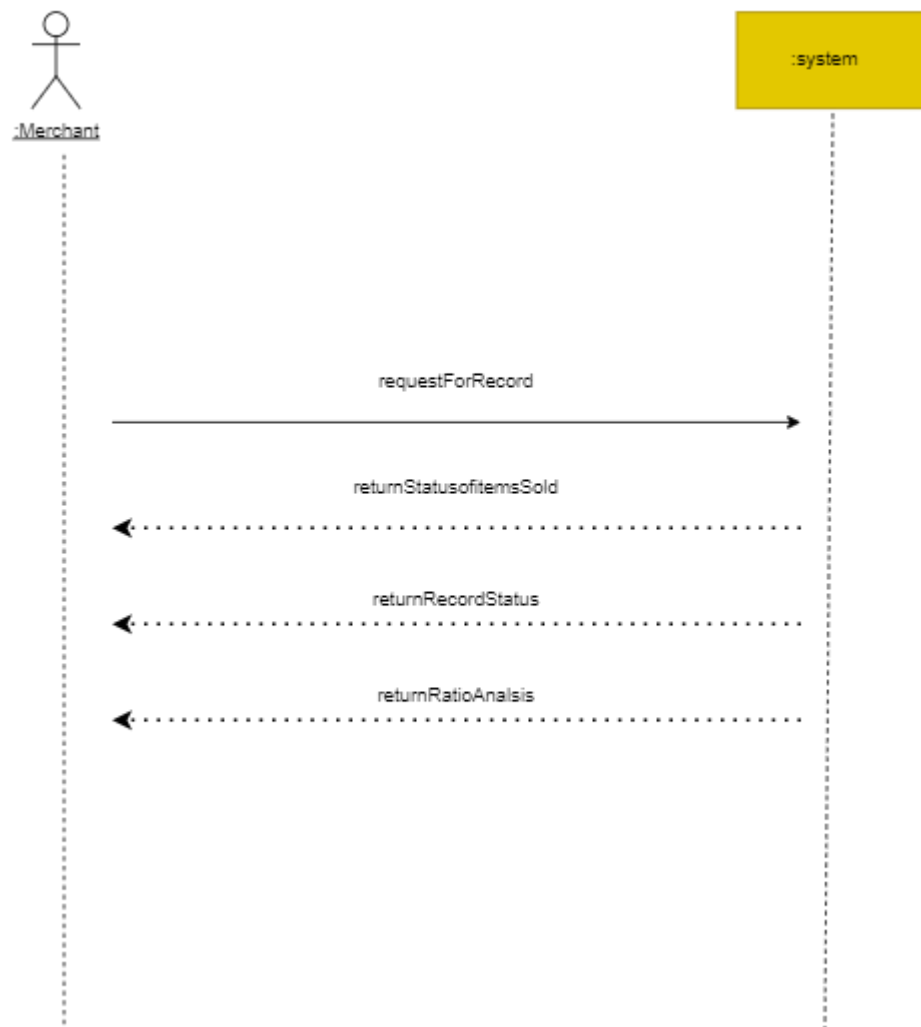


Figure 9 Analyze Sale

5.6.3: Wishlist:

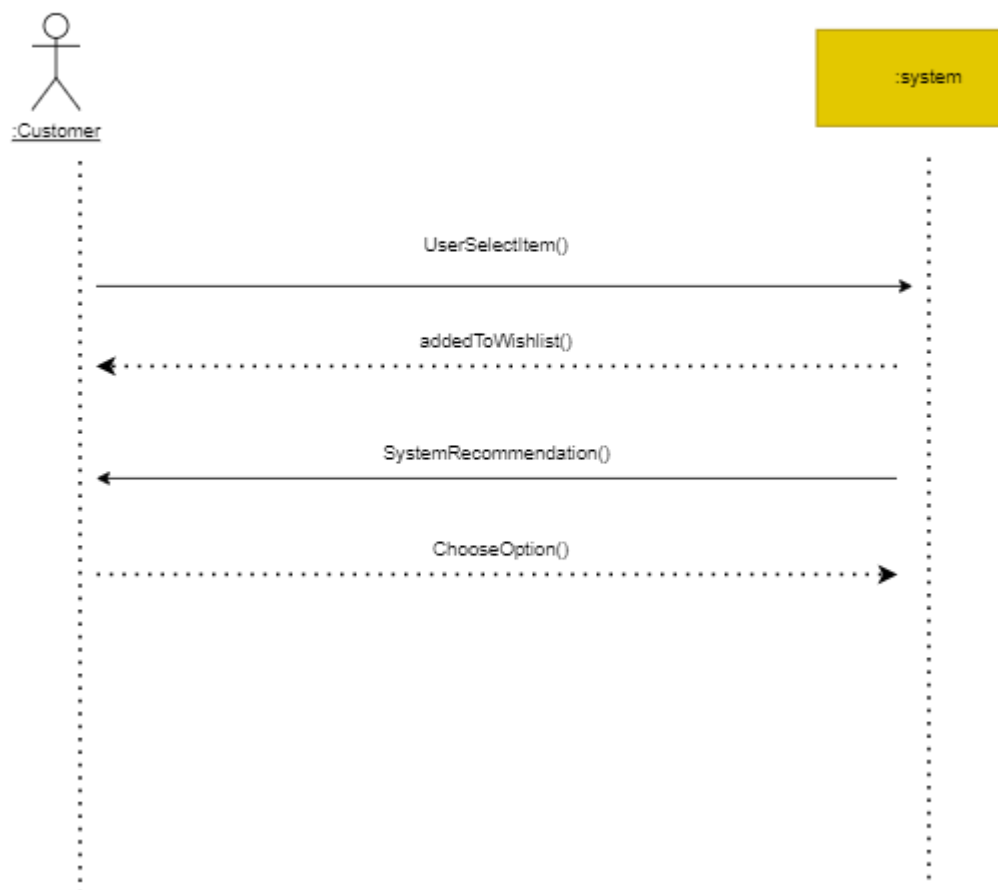


Figure 10 Wishlist

5: Reference

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