


BUSINESS SYSTEM DEVELOPMENT AND ANALYSIS – INDIVIDUAL REPORT

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1.0 EXECUTIVE SUMMARY

Dear Executives,

The purpose of the report is to analyse the comprehensive system of Amazon's E-commerce services.

This report is made from the Business Analyst's acumen to understand and dive in the concept of online shopping. Moreover, to get the whole system, will use UML diagrams to identify the flows of subsystem business cases within the online shopping.

After having full fledged knowledge from the UML diagram, will then identify the issues and flaws and will also suggest some additional features for the improvement of the company.

This report is splitted in 4 parts-

Part 1- Background of Amazon -> This section will cover the background information about Amazon, their services, opportunities, and brief description about the E-commerce industry.

Part 2- UML models-> In this section, we will use UML diagrams for the current systems to know the business processes of online shopping. Diagrams to illustrate the system are – Activity Diagram, Use case diagram, Class diagram and State machine diagram

Part 3-User-Interface-> This section will inspect and analyse the current user interface design and will categories the goods and bads respectively. However, will also provide with the ways to improve the interface design.

Part 4- Additional Features-> For this section, we will suggest some new feature or an idea to add value to the system and consumer satisfaction. Will also use 2 pictorials i.e. Activity diagram and state machine diagram for the new system.

By the end of the report, you will understand Amazon's online shopping system and functionalities of all the subsystems.

Hope Amazon will understand and adopt our new suggested features to their system.

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2.0 BUSINESS CASE

2.1 Background of industry

The industry in which Amazon Online Store operates is E-commerce. Electronic commerce or E-commerce is platform of communication through internet that takes place between companies and their customers (Whiteley, 2000). ¹E-commerce is an umbrella under which most of all the activities that once required physical interaction can now be done from your comfort zone by some press and play. Nowadays, online shopping has become the most popular and effective way of shopping among customers. But back then in WWW era, when the world was adopting with the world wide web, online shopping was just a out of the box ideology. The history of e-commerce can be traced back to the 1960s with the development of the Electronic Data Interchange. It was supposed to replace mail and fax because it made data exchange possible through digital transfer, without the need for human intervention.²

However, with the passage of time e-commerce is not limited just on websites, but social media is no longer known only as a media that facilitates its users to present themselves on the internet but also as media to sell some products to consumers known as an online shop. Because of the numerous advantages and benefits, more people say that they prefer online shopping over conventional shopping these days (Singh & Kashyap, 2007). ³Now, first let's understand the advantages and disadvantages of E-commerce-

- ***Disadvantages of E-commerce***

- 1) Site Crash, No Sale : As E-commerce works full-fledged on internet, there might be possibility of site crash or power cut etc. which will bring in no sales.
- 2) Try It, Then Buy It Concept: People are adopting with new digital changes, but some people still feel and believe that before buying any product, one should have privilege to have hands on experience with that product.

- ***Advantages of E-commerce***

- 1) Comparatively Less Investment : Online shopping stores or E-commerce requires less investment than the brick mortar shops, which involve cost in the form of rent, lease, construction cost etc.
- 2) Wider customer coverage : With the online store, you can reach out to your audience irrespective of their geographical location, which result in increase sales and wider customer base.
- 3) Anytime Sales : The e-commerce lets you enjoy the freedom of 24*7 sales, customers can shop whenever wherever they want. This idea eliminates opportunity cost.

We have covered major points, and overall, the advantages are more than the disadvantages.

¹ <https://www.bartleby.com/essay/The-Background-And-Background-Of-E-Commerce-FJULGQ5L2R>

² <http://repository.unika.ac.id/18939/2/14.J2.0049%20FIFIYANTI%20%287.06%29..pdf%20BAB%20I.pdf>

³ <http://repository.unika.ac.id/18939/2/14.J2.0049%20FIFIYANTI%20%287.06%29..pdf%20BAB%20I.pdf>

2.2 Background of Amazon

Amazon tries to provide all products at one place and even the symbol says A to Z.



Jeff Bezos read a report regarding the future of commerce, the report said that there can be 2,300% growth from web commerce market and most hot products will be - compact discs, computer hardware, computer software, videos, and books. That moment initiated the thought process behind the Amazon.⁴

Amazon is now a very big name, but it all started in year 1994 with an online bookstore and launched IPOs after 3 years in 1997. After witnessing growth from the online bookstore, they thought to expand their business and to start offering convenience services.⁵ The graph was going up, it was 2005, the company is now thinking to add some subsidiaries, with which they came up with cloud computing Amazon AWS and by the end of year 2012, company also started offering streaming services like Amazon music and Prime video.

2.3 Problems/services addressed by Amazon system

The problems faced by customers before the Amazon Online shopping subsidiary were-

- 1) **Same product, higher price** : As there were all the brick mortar businesses with heavy investments, the product used to be priced at MRP (maximum retail price) only. Unlike online shopping, where we get same product at lower rate.
- 2) **Time bound** : The physical store must hire sales assistance and cannot open the shutter 24 hour, so they and the customers are restricted to time. Whereas the online shopping store can be accessed whenever wherever.
- 3) **Self-Pickup** : Earlier when the logistics were evolving, people/customer used to go pay and pick up the product. However, people can now be eased and in comfort with Amazon's home delivery service.
- 4) **Limited options** : People used go shop near their locality, which usually had limited options and variety, but now, customers are the king of the market, with wide variety to choose from.

⁴ [Amazon.com \(companieshistory.com\)](https://www.amazon.com/companieshistory.com)

⁵ [History of Amazon - Wikipedia](https://en.wikipedia.org/wiki/History_of_Amazon)

Now let's talk about the services provided by Amazon to solve all the above problems-

- 1) **Online Shopping facility** : First and foremost, online shopping facility has given customers a privilege to shop anything from anywhere with just some clicks.
- 2) **Home Delivery** : Amazon provides facilities like home delivery, which makes things very convenient for customers. Moreover, it can also be considered as USP in the competitive market.
- 3) **Discounts** : Amazon can provide better discounts than the local store as they can easily eliminate costs of rent, lease etc.
- 4) **Wide options to choose from** : Amazon ties up with different sellers of different products, that provides customer with wide range of varieties.

2.4 Opportunities of Amazon system

Opportunities are the things, which could expand or work for us or our strengths that could work as an opportunity for us. Opportunities for Amazon are-

- 1) **Own Payment Gateway** : Amazon has a feature to pay online for the orders but must hire a third-party payment gateway to ensure security and safety of customers. But, if Amazon comes with their own payment gateway, they will save a lot of money as well as increase profit margins.
- 2) **Bank Integration** : Amazon should expand and propagate their own home brand like Amazon basics and Amazon symbol. This will improve profit margins.
- 3) **Acquisitions** : Amazon is almost every country; they can acquire local online stores to increase company's market share and reduce competition.
- 4) **Improve Technologies** : Amazon can improve technologies and system to help society function well, like it is doing with AWS cloud computing.

3.0 UML DIAGRAMS

3.1 Activity Diagram of Online Shopping

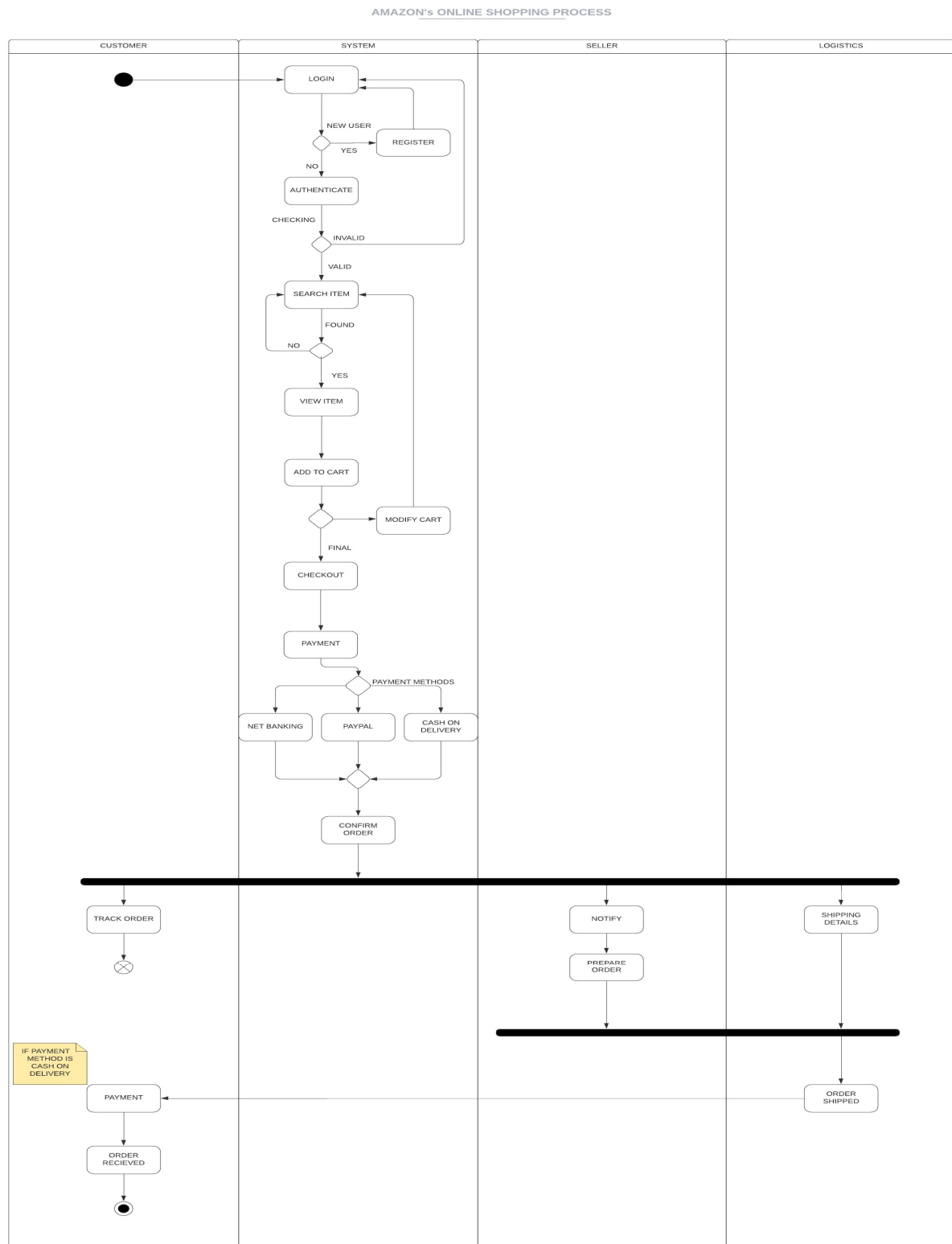


Figure 1- Activity diagram of Amazon's online shopping.

In this Activity Diagram, the customer will either login or register in the system to view products. Customer will search the item, he/she is looking for, then will view the item, if they like it, they will add it to the cart. If they want to add more items, will again look for it in the system. After finalising the cart, customer will choose the payment method, then the order will be confirmed. After confirming the order, the system will concurrently send notification to seller, shipping details to logistics and feature of tracking order to customer. Logistics will pick the order from seller and will deliver that package to the customer.

3.2 Overall Use case of Online Shopping

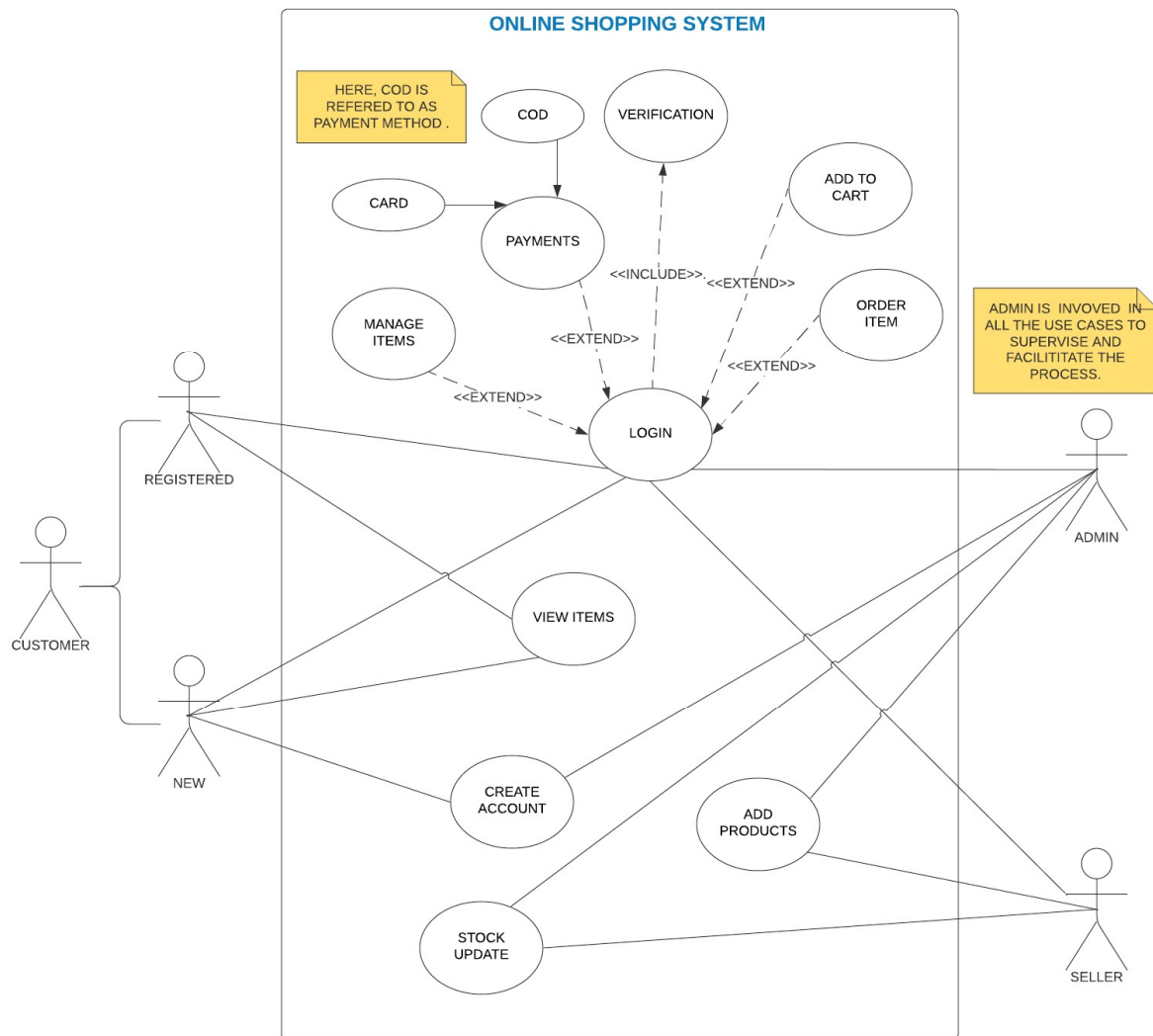


Figure 2- Overall use case diagram of Amazon's online shopping system.

From Figure 2, we can deduce that this is use case of online shopping system, which shows how the system will react when a customer logs in and buys the product on Amazon. Here, in this system, process begins and end with the customer. The actors in the use case are – Registered customer, new customer, admin, and seller.

3.3 Expanded Use case diagram

Use Case Name	Login	
Scenario	Buy products online on Amazon	
Trigger event	Customer to shop online	
Description	Login and shopping can be done through Amazon application as well as website.	
Actors	Customer, Admin	
Preconditions	Customer must have internet connection and must be on website or application	
Postconditions	Customer is successfully logged in to shop online.	
Flow of activities	Actor	System
	1. Insert credentials	1.1 Search customer in the system
	2. Login	2.1 Authenticate
		2.2 Check validity
	3. Browse	3.1 Check the stocks of the view items

This expanded use case focuses only on the Login use case, the diagram shows the interaction between the customer and system and how will the system react, when customer tries to login in the system.

3.4 Class Diagram of Online Shopping system

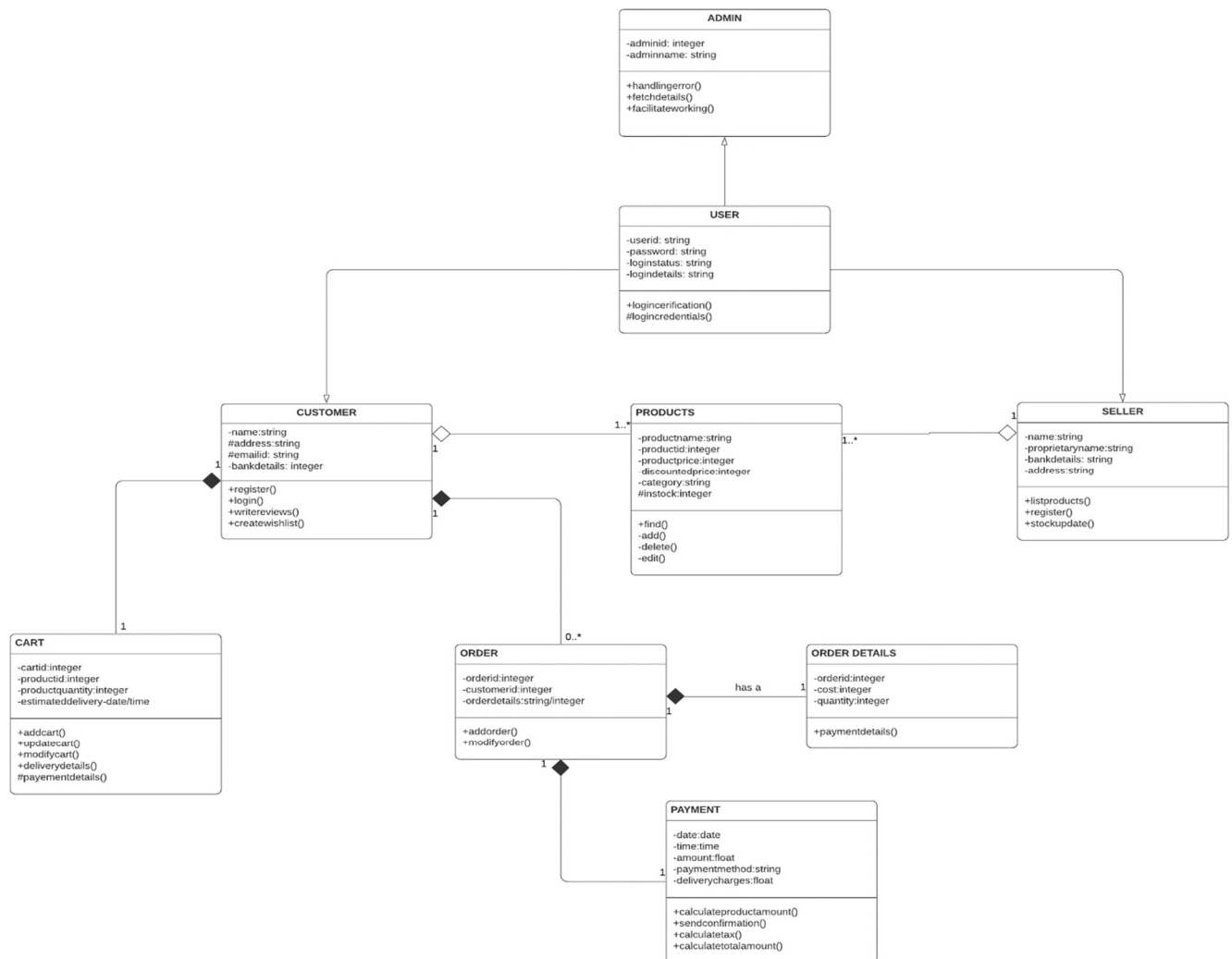


Figure 3- Class diagram of Amazon's online shopping system.

Here, the order details and payment have composition relationship with order class. And order class has composition with customer. The customer and cart share a composition relationship as well. It shows that 1 customer can have 1 active cart only but can many orders.

3.4 State Machine diagram of online shopping system

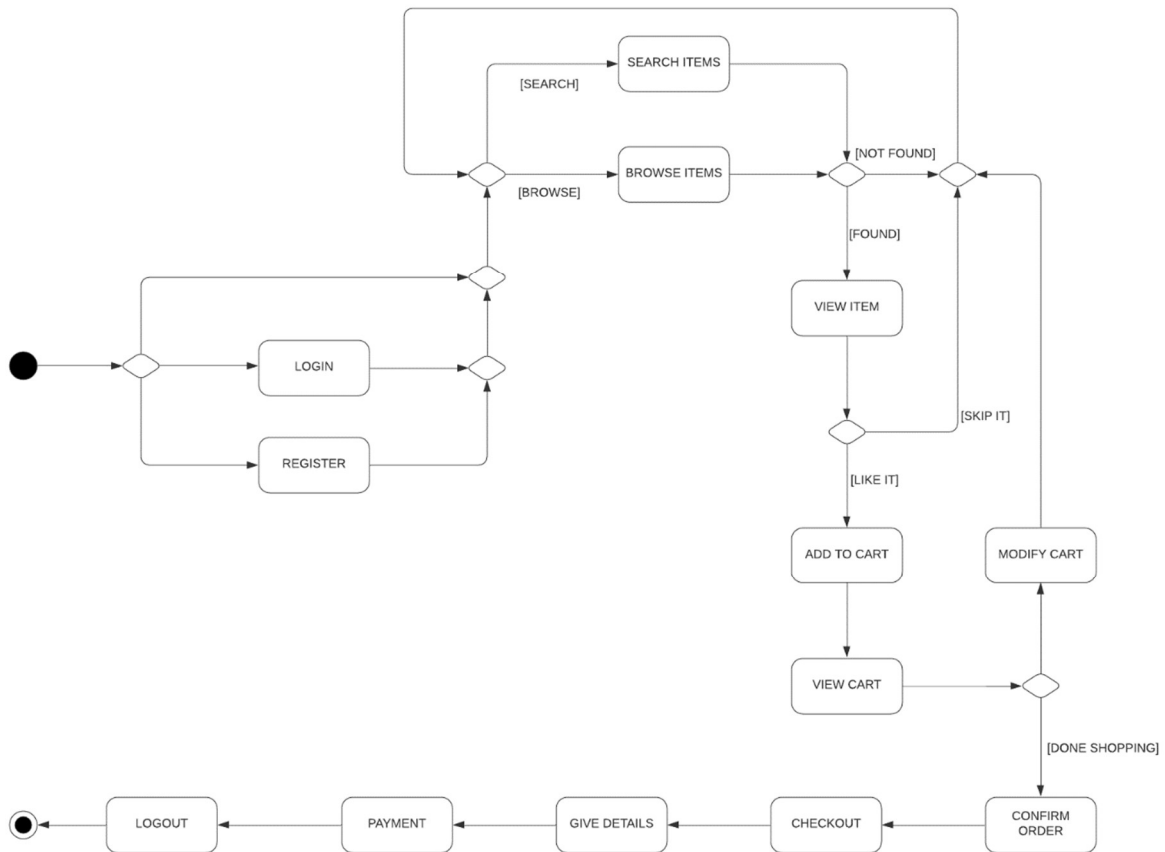


Figure 4- State machine diagram of Amazon's online shopping system

4.0 USER-INTERFACE DESIGN

The user interface (UI) is the point at which human users interact with a computer, website, or application. The goal of effective UI is to make the user's experience easy and intuitive, requiring minimum effort on the user's part to receive maximum desired outcome.

The current design of user interface is –

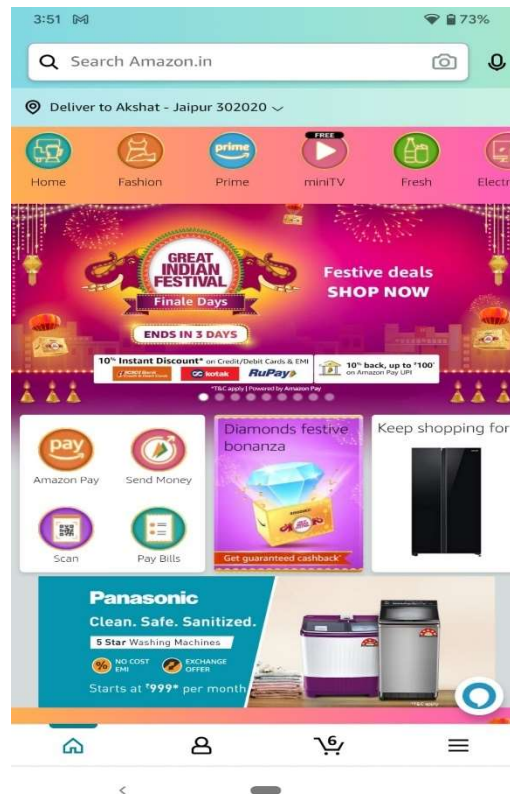


Figure 5- Current home page of Amazon application.

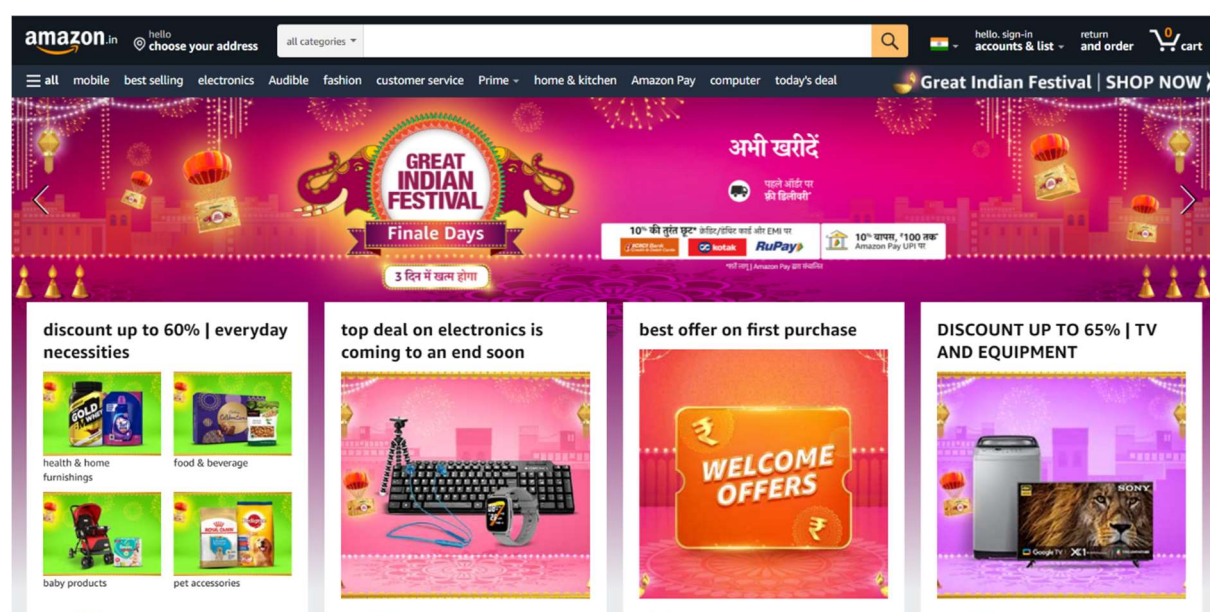


Figure 6- Current home page of Amazon website.

The Bad things in user-interface- Colour weirdness, spacing issues, unsymmetric

The Amazon application looks messed up as there are no decent colour combinations that could complement each other and filled with so many things.

The Ugly things in user-interface- Lagging

This is the worst thing about website as well as application, when you try to filter or sort things, the system gets lagging and sometimes gets choppy for a second.

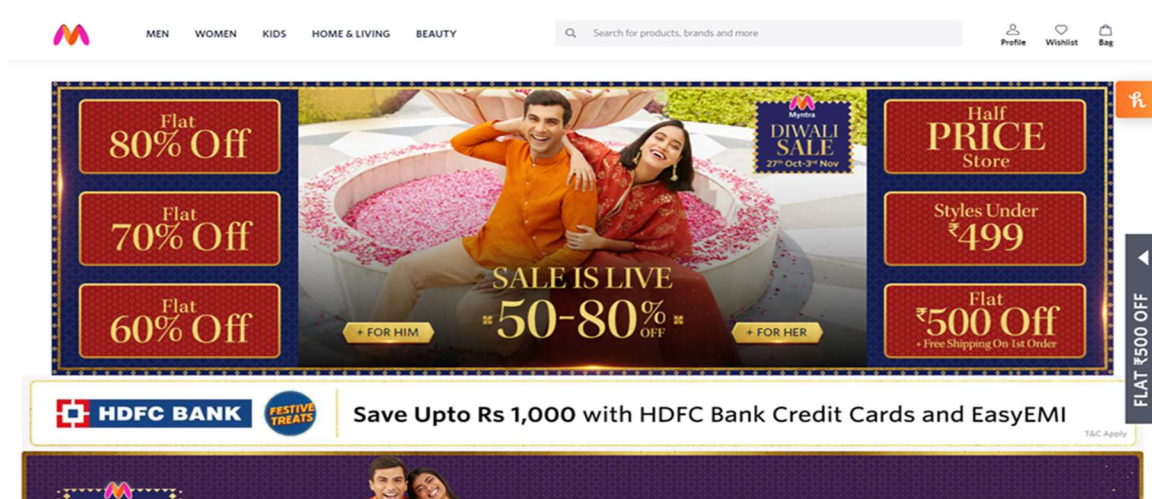
The Good things in user-interface – Voice recognition and camera capture search

This is the best feature of Amazon, where you can search anything by just click the product's image. The second thing is it shows everything on home screen, which is good but if the tiles would be symmetric then it would be great.

Improvements in the User Interface of Amazon-

- 1) **Dark Mode** – Amazon should introduce dark mode feature in their system, this dark theme makes the screen more attractive and classier.
- 2) **Picture Scan** – Picture scanning should get priority and should be in the home screen rather than on the top panel.
- 3) **Same Font and size** – Amazon should use the same font size throughout, because it will make tiles look clean and well arranged.
- 4) **Keeping checkout and payment page simple** – Amazon has filled the system with so many things, that while checking out, you must literally crosscheck the products and look for the total amount and lastly the estimated delivery time. It would be great if Amazon keeps things simple.
- 5) **Reinvent the system**- Amazon should reinvent the system by using proper colour coordination and symmetry.

The best of user interface- Myntra (India's online clothing store)



5.0 ADDITIONAL FEATURES

Problem -> In India, marriage is considered a very big event, people tend to spend all their savings for marriage rituals. On average, Indian marriage has 400 guests and that's a very big number and out of tradition all the guests give gifts to newlyweds, but these gifts are not useful for the couple. These gifts are total waste of money and tend to get dusted in the corner.

Economic Times article->[Useless gifts are 'under the scanner' in Wedding Wishlist's new campaign, Marketing & Advertising News, ET BrandEquity \(indiatimes.com\)](#)

Solution -> If Amazon comes with a feature, where couple can join their account or can create a jointly wish list and share it to the guest. With this, guest can gift a wish listed item or can gift amazon gift card or recharge amazon pay balance. The result will be, firstly, it will help guest to choose the gift and secondly, the couple will get what they really need.

This feature will add value to the system in terms of revenue as well as customer satisfaction because gifts will be purchased from Amazon itself and these gifts will make the couple happy and delightful.

5.1 Activity diagram of new feature in the system

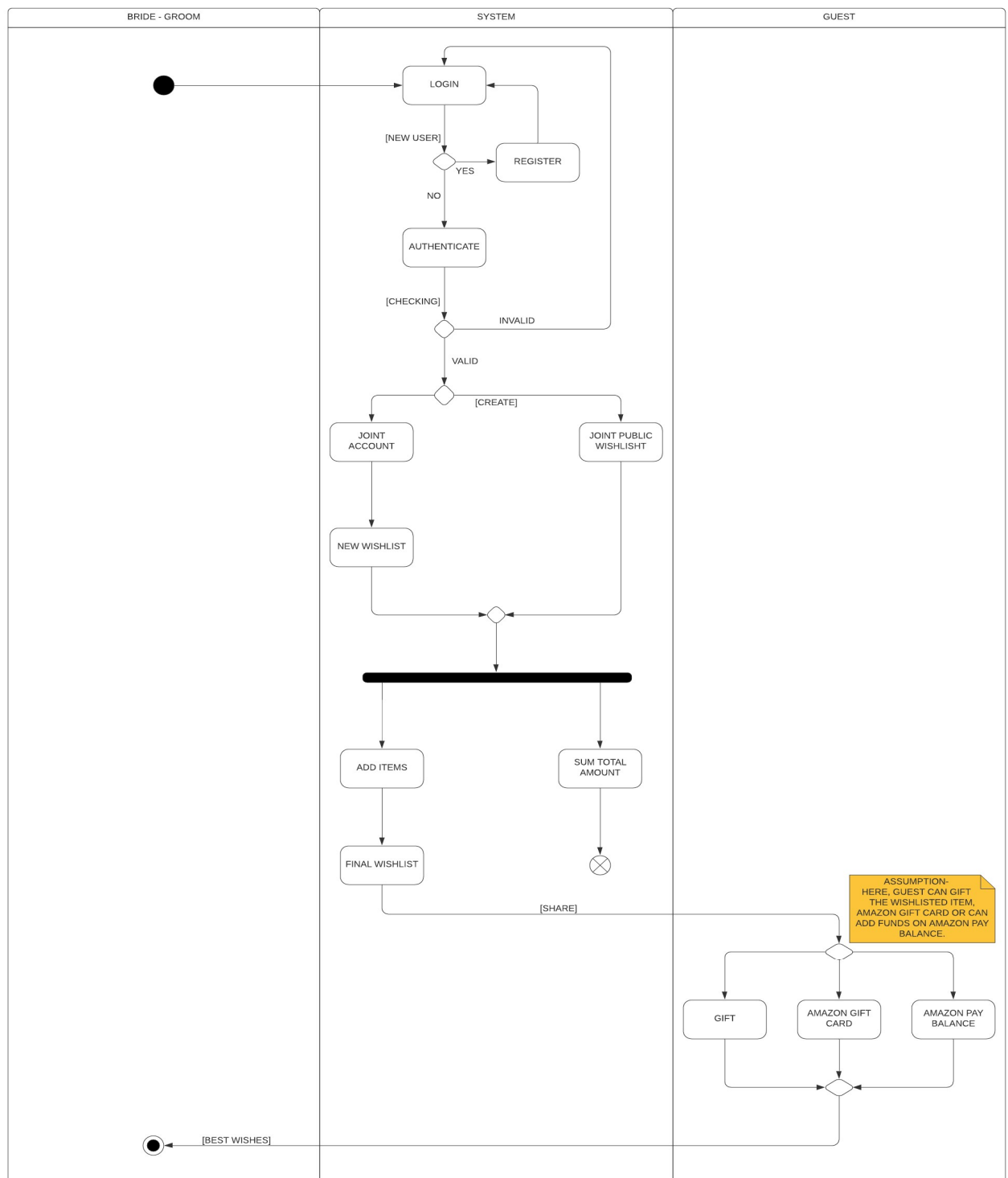


Figure 7-Activity diagram of new feature.

5.2 State machine daigram of new feature

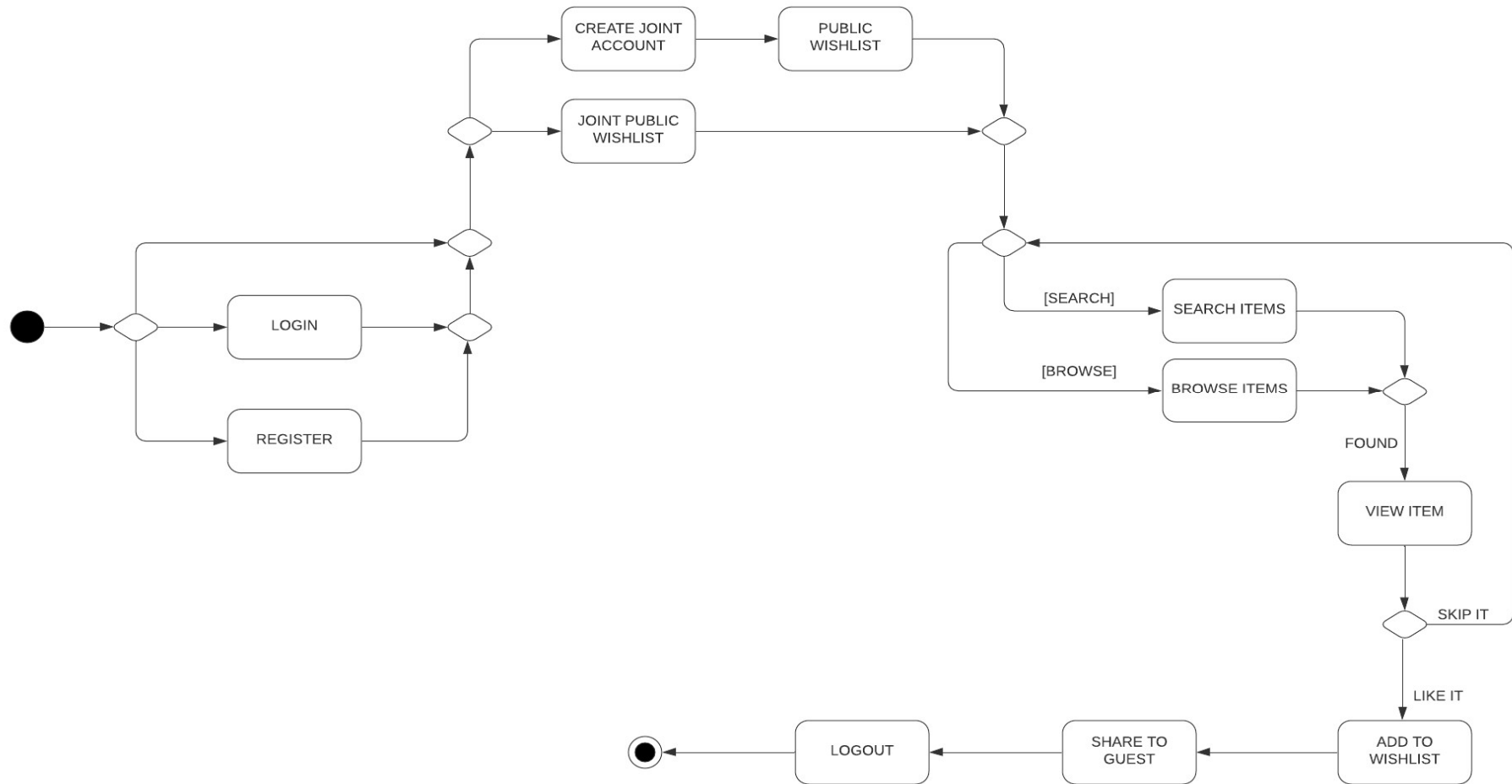


Figure 8- State machine diagram of new feature.

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APPENDIX

1) Reference for new feature

Useless gifts are 'under the scanner' in Wedding Wishlist's new campaign

The video has been created in association with the agency What's Your Problem

ETBrandEquity • July 12, 2016, 16:18 IST



Picture credits: YouTube video

Newly launched, [Wedding Wishlist](#) is a portal that allows prospective couples to share a list of desired wedding gifts with their guests and receive the gifts they truly need.

It all began when [Kanika Subbiah](#), CEO and Founder of Wedding Wishlist was in a conversation with a frustrated friend.

Frustrated because she had received a pile of useless gifts at her wedding.

“Too big, too garish, too...everything”, said the friend, sighing at the weight

2) Home page of Amazon

