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Ecommerce Application

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Abstract

E-commerce was introduced about 40 years ago in its earliest form. Since then, electronic commerce has helped countless businesses grow with the help of new technologies, improvements in internet connectivity, added security with payment gateways, and widespread consumer and business adoption.

With the wide adoption of the Internet and the introduction of the World Wide Web in 1991 and of the first browser for accessing it in 1993, most e-commerce shifted to the Internet. More recently, with the global spread of smartphones and the accessibility of fast broadband connections to the Internet, much e-commerce moved to mobile devices, which also included tablets, laptops, and wearable products such as watches.

Ecommerce has come a long way since the CompuServe launch in 1969. Changes in technology have certainly driven ecommerce growth, along with global circumstances.

In this project, any visitor to the application can browse and search listed items to buy one any user can offer a product for sale or.

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Introduction

What is Ecommerce?

E-commerce is fast gaining ground as an accepted and used business paradigm. More and more business houses are implementing web sites providing functionality for performing commercial transactions over the web. It is reasonable to say that the process of shopping on the web is becoming commonplace.
The objective of this project is to develop a general-purpose e-commerce store where any product (such as books, CDs, computers, mobile phones, electronic items, and home appliances) can be bought from the comfort of home through the Internet.

An online store is a virtual store on the Internet where customers can browse the catalog and select products of interest. At checkout time, the item will be presented as an order. At that time, more information will be needed to complete the transaction.

Usually, the customer will be asked to fill or select a billing address, and a shipping address.

Difference Between E-Commerce V/S Traditional Commerce

Basis	E-Commerce	Traditional System
Reduce Data Error	Doesn't involve data at multi points. Data goes directly from one computer to another computer without involving human being	The buyer and seller create purchase order on their system and send it to their trading partner.
Reduce cost	Initial cost of E-commerce is very high as compared to paper process but over a long period of time, it is very effective.	Time is directly linked to saving the money. There is repetition of same work at every level and it involves a lot of wastage of time.
Reduce Paper work	E-commerce data in the electronic form make it easy to share it across the organization.	It requires re-entry of data at each level and requires lot of time.
Reduce labor	No need to maintain large number of employees.	Need to maintain a large number of employees to fulfill orders from customers.
Reduce cycle time	reduces the processing cycle time of complete cycles as the data is entered the system, it is simultaneously processed	When the buyer orders in a paper format, the data is re-entered to the seller's computer.

Project Planning

Project planning is part of project management, which relates to the use of schedules to plan and subsequently report progress within the project environment. Initially, the project scope is defined and the appropriate methods for completing the project are determined.

Following this step, the durations for the various tasks necessary to complete the work are listed and grouped into a work breakdown structure. The logical dependencies between tasks are defined using an activity network diagram that enables identification of the critical path.

At this stage, the project plan may be optimized to achieve the appropriate balance between resource usage and project duration to comply with the project objectives. Once established and agreed, the plan becomes what is known as the baseline. Progress will be measured against the baseline throughout the life of the project

Purposes

The project is about to handle all the information of the shop regarding members. Also it manages resources which were managed and handled by manpower previously. The main purpose of the project is to integrate distinct sections of the shop into consistent manner so that complex functions can be handled smoothly. The project aims at the following matters

- Automation of product manipulation.
- Buying products.
- To manage information of different types of items.
- Consistently update information of all the item.
- Managing security by providing authorized email & password. Manages database efficiently.

System Design

User Characteristics

Admin

The administrator has all the rights to access the system. He is the one who has all rights to view the members and ad details, modify those details. He can add various ad based on the category. Admin can also view the details of a member. The admin is the one that defines categories and their respective attribute types that can be used later when adding an ad.
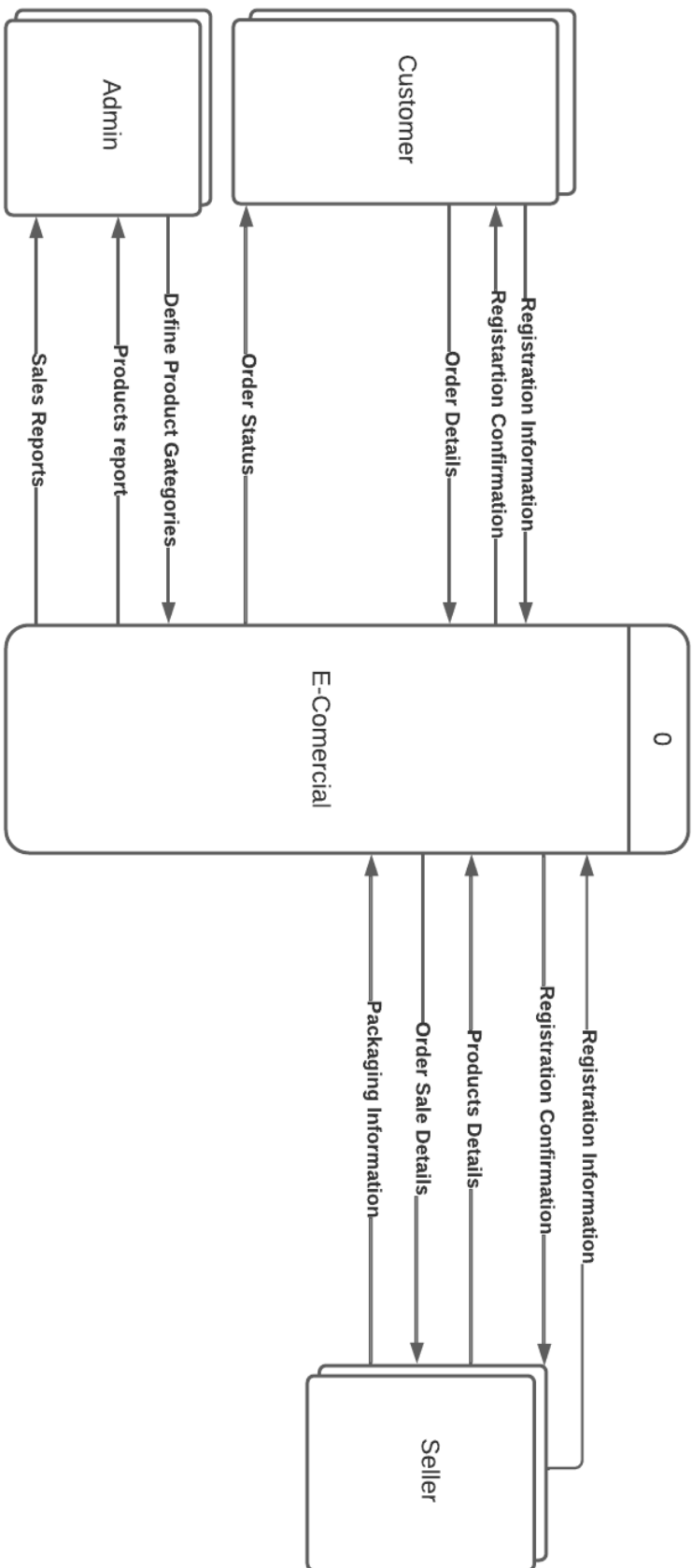
Users

The user can log in to the system by using his specific email and password. User can view the ads and order the ads according to their own needs. He can view his profile and update his details. User can find various product by using search option easily. He can create and ad and fill its attribute values.

Design

System design is the process of defining the elements of a system such as the architecture, modules and components, the different interfaces of those components and the data that goes through that system.
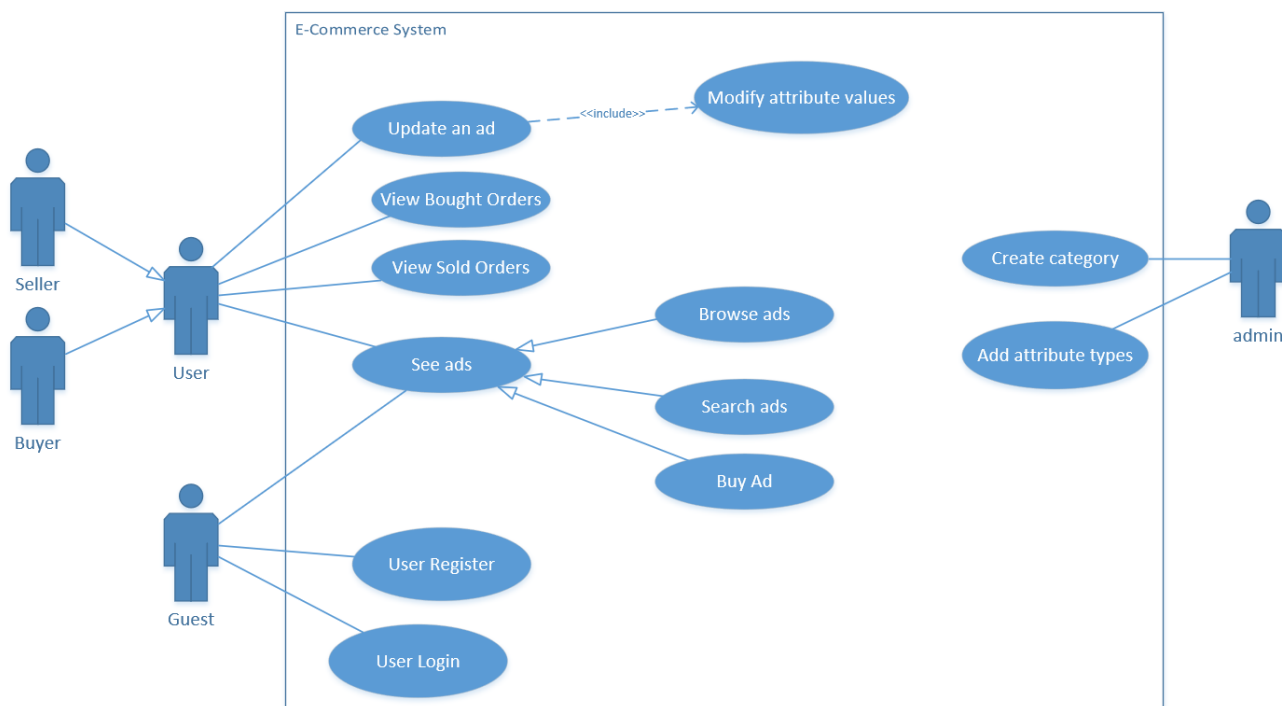
Here the examples of graphical modelling we use in System design:

- Context Diagram
- Use Case Diagram
- Functional disposition diagram
- Data flow Diagram
- Entity relationship diagram

Context Diagram:

Use Case Diagram:

A use-case model is a model of how different types of users interact with the system to solve a problem. As such, it describes the goals of the users, the interactions between the users and the system, and the required behavior of the system in satisfying these goals.

Use Case Documentation:

Name	Update an ad
Description	Update the ad information (items listed on it and their price). It includes making a new ad or modifying an existing one
Actors	Product Provider
Pre-Conditions	- The user should be logged in - The ad should belong to the user
Flow	1. The user logins into the system 2. The user views his listed ads 3. The user chooses the ad he wants to update 4. The user finishes updating the ad
Exceptions	- The user can't create an ad without items on it. - Each item should have a price and can't be empty
Priority	High

Name	User Register
Description	Register the user in the system, whether he is a seller or consumer
Actors	New User
Pre-Conditions	None
Flow	1. The user clicks the register button 2. He fills his email, password, name, phone, address 3. A confirmation email is sent to the user email
Exceptions	1- The user can't leave any of the fields empty 2- The password can't be less than 6 characters
Priority	High

Name	See Offers
Description	Show offers listed on the website
Actors	Seller, Consumer
Pre-Conditions	The user should be logged in
Flow	1. The user opens the main page of the website 2. He can browse, search or view favorites
Exceptions	None
Priority	High

Name	Browse Items
Description	Show all listed items on the website
Actors	Seller, Consumer
Pre-Conditions	The user should be logged in
Flow	The user opens the main page of the website
Exceptions	If there are no items, show a message that no items are present
Priority	High

| Name	Search Item
Description	Search the items present in the website either by typing its name or search by voice
Actors	Seller, Consumer
Pre-Conditions	The user should be logged in
Flow	1. The user opens the main page of the website 2. The user clicks the search text field and types the product name or clicks the voice button and say its name
Exceptions	- The entered text is null - The searched item is not present on the website
Priority	High

Name	Favorite item
Description	Any item can be marked as a favorite item by a user. the user then can view his favorite items
Actors	Seller, Consumer
Pre-Conditions	The user should be logged in
Flow	1. The user opens the main page of the website 2. The user clicks on any item 3. He clicks the star shaped button to favorite it
Exceptions	None
Priority	Medium

Name	Update Category
Description	The admin can Add a category or update any existing one
Actors	Admin
Pre-Conditions	The admin should be logged in
Flow	1. The admin opens the website 2. He clicks on the admin panel 3. He clicks on the categories page 4. A list of categories is shown with the ability to edit, delete any one of them and an add button is present if he wants to add a new category
Exceptions	None
Priority	Medium

| Name	Approve Registration
Description	Any new user should get his registration approved by the admin
Actors	Admin
Pre-Conditions	The admin should be logged in
Flow	1. The admin opens the website 2. He clicks on the admin panel 3. He clicks on the Approve users button 4. A list new unapproved users are present in which the admin can either approve or disapprove a user registration
Exceptions	None
Priority	Medium

Functional Decomposition diagram:

Functional decomposition is a method of analysis that dissects a complex process in order to examine its individual elements. A function, in this context, is a task in a larger process whereby decomposition breaks down that process into smaller, easier to comprehend units.
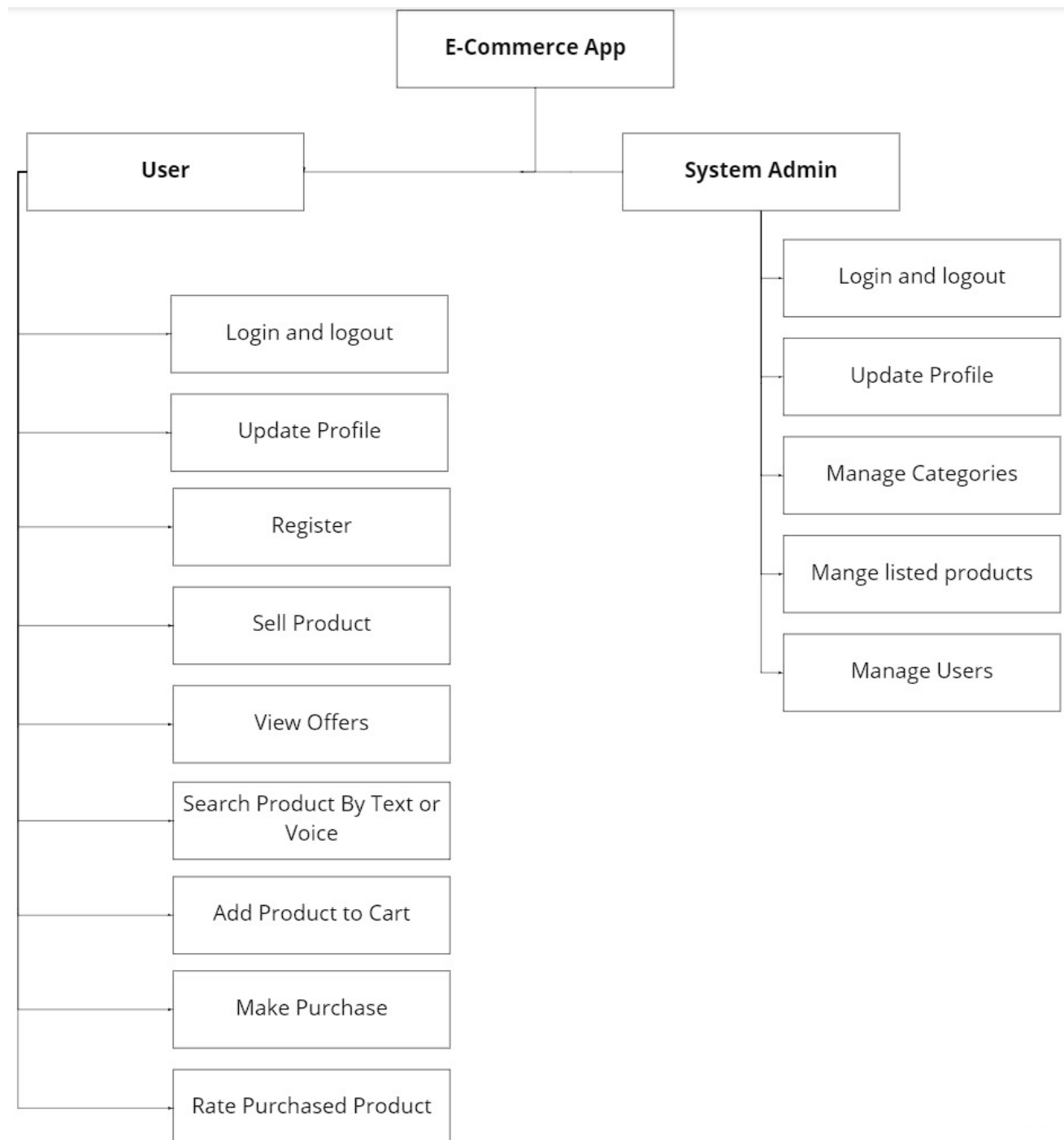
Data flow Diagram DFD:

A data flow diagram (DFD) is a graphical representation of the" flow "of data through an information system, modeling its process aspects.
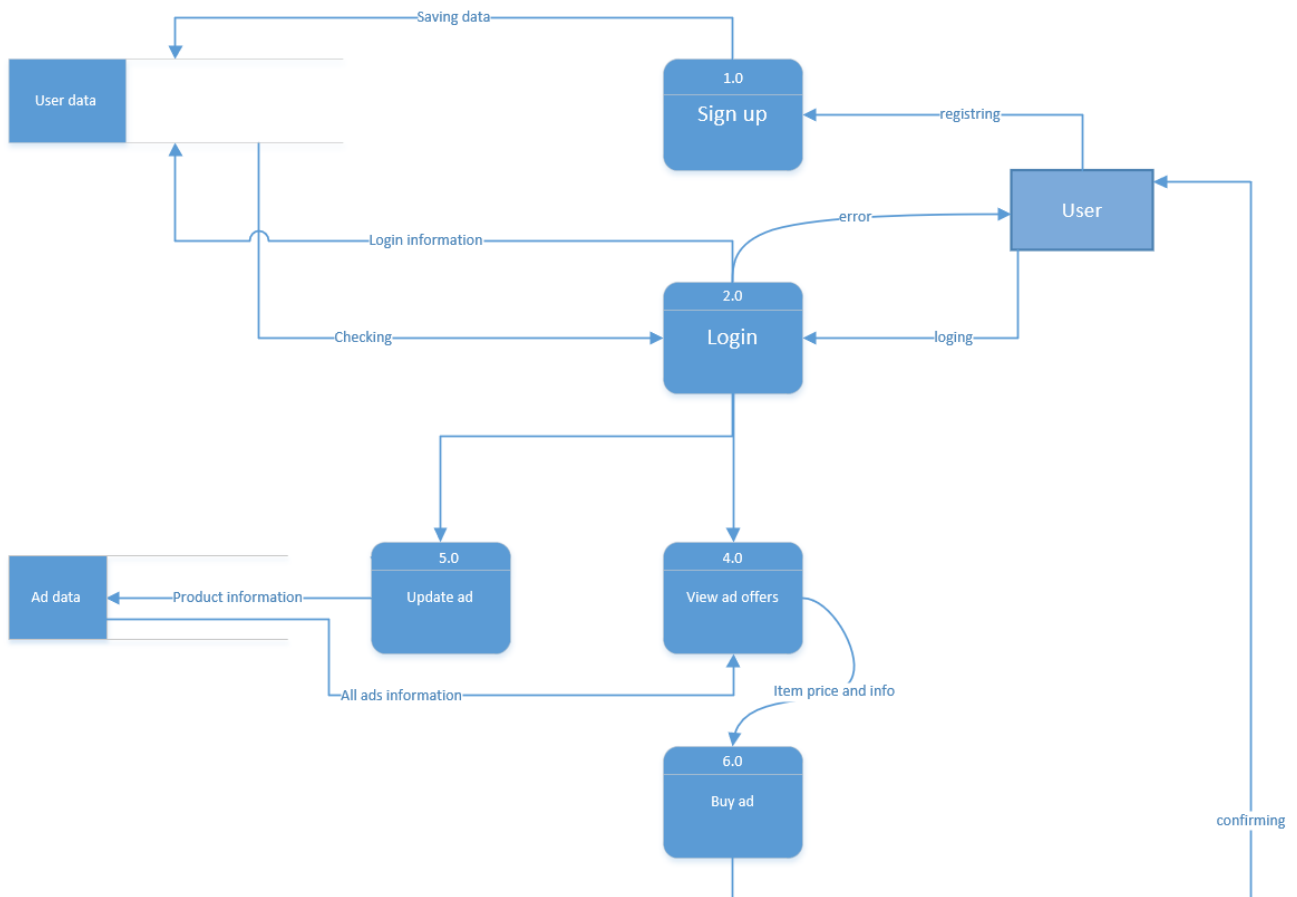
Entity relationship diagram:

An entity-relationship diagram (ERD) is a graphical representation of an information system that shows the relationship between people, objects, places, concepts or events within that system.
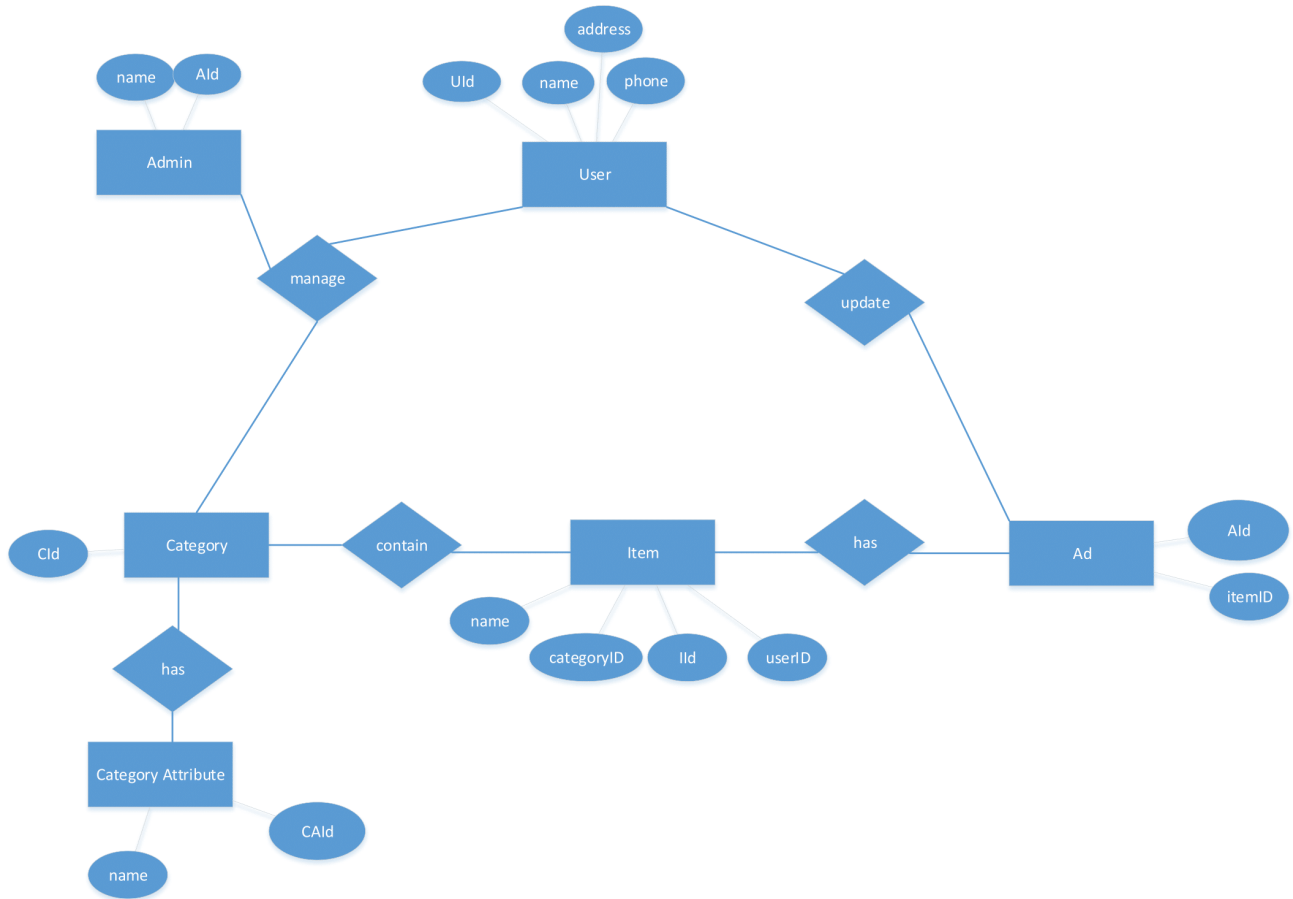
Software Development

The project consists of two parts:

1. Backend: وصف الباك ايند
2. Frontend: وصف الفرونت

Backend

اوصف الباك ايند والاستراكشر الخاص بالكود مع اسكرينات ل swagger

Frontend:

The front-end consists of two parts: web UI and mobile UI

Web UI:

اسكرينات لشكل الموقع

Mobile UI:

اسكرينات للموبايل

Conclusion

The world revolves around the internet today. E-commerce is a great forum for startups to establish themselves. In a country like India, e-commerce plays an important role because it needs minimal or no investment and all one needs is an idea to begin an online store. The unemployed youth of India has a great advantage to make use of through the electronic commerce platform.

E-commerce still represents one of the business methods that take advantage if done the right way, even if the stock market and commodities fell, but E-Commerce still able to survive and receive high transaction. E-commerce has a tremendous opportunity in the course of or business in Malaysia. In addition, it is also to introducing new techniques and styles in a transaction. Use the extensive E-Commerce in the Internet world is actually much better to bring the goodness of the individual or the state.

E-Commerce has undeniably become an important part of our society. The successful companies of the future will be those that take E-Commerce seriously, dedicating sufficient resources to its development. E-Commerce is not an IT issue but a whole business undertaking. Companies that use it as a reason for completely re-designing their business processes are likely to reap the greatest benefits. Moreover, E-Commerce is a helpful technology that gives the consumer access to business and companies all over the world