



Android Mobile Application Store

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Abstract

This mobile application is designed and developed to all people. It allow selling item and services, and to find the nearest item in your local country.

The system allow the user to sign up and then sign in, it let them add personal items and services providing the right category to be in. It also allows the user to search for a specific item or services to fulfill their needs. The buyer can reach seller via providing the phone number in the description.

The main objective is to create a suitable mobile application which is easy to use and allow the buyer to reach the seller easily and fast to fulfill their needs.

Aim of the Project

We will create a mobile application where every user will have access to it anywhere and anytime. He will be able to login, where he can sell his products and to buy products. Also he will be able to provide a service or even find a service. This application will provide also the ability to find nearby services and to find rare products faster than usual which will lead to fulfill the need of every user.

Introduction

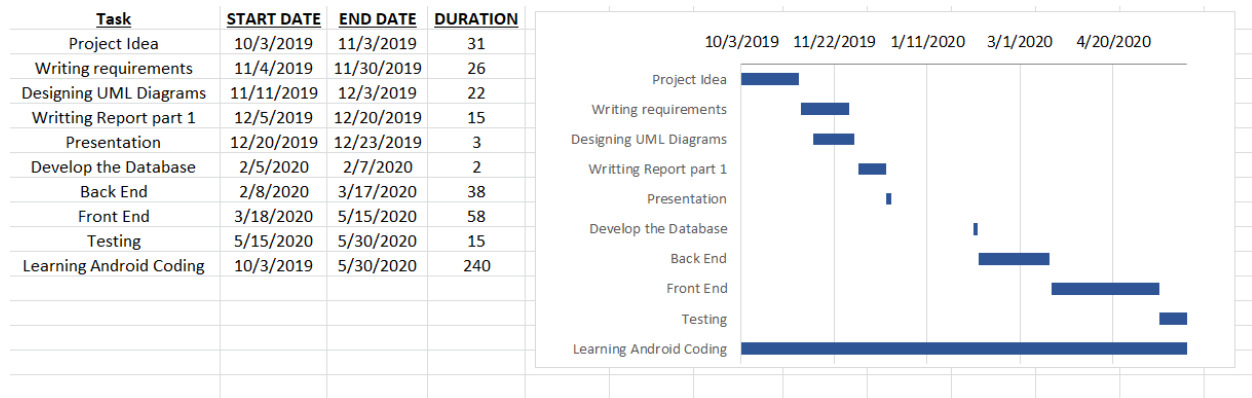
In this chapter we will talk about two things. The problems that we face nowadays and the solutions that can be used to solve these problems.

First, we will speak about the problems that we face nowadays. People are always seeking to sell either their used items or new products, and services to make some money. They always ask themselves where, how and who to sell them to. They have a hard time finding people who are interested in buying used products, new ones and even services. Sometimes they even wish to sell rare products. However this type of products doesn't have a big market, and the existing one is hard to reach. As for consumers, they are always looking for the lowest prices and best quality items. However, the products or services they wish to obtain, whether used or new, are sometimes hard to find or even if they find them they are not available in the region they live in. They also have a hard time to find the most qualified suppliers to buy from. Another problem the consumer face is that they have a hard time to find the best providers who can provide the best services.

Secondly, we will speak about the solutions for these problems. We will create an application which consists of a user interface and an administrator interface (web designed). To access the content of the application the guest will have to create a free account and to apply for paid subscription in order to sell his/her items or services. The application targets all niches who wish to buy products and services online. They can find a variety of services on the app by searching for them by keyword, category and location. They can also find rare products since the application as we have mentioned before targets all market niches. Any buyer will have the option to submit a review and to rate the product or the service they bought. This feature will help the consumers to find the best supplier to buy from. Also, it will help the suppliers to gain the trust of the consumers. As a last feature, I will create a button which will help the consumers who were interested in a product on the application to save it which will give him the possibility to get back to it later on.

In conclusion, we can say that this application can solve so many problems like finding the desired products or the best service provided fast and easily.

Tasks Schedule



In this chapter we will speak about the schedule of this application. It is composed of different tasks like project idea that was brainstormed and decided which it took 31 days to complete. Writing requirements which define what the application help to achieve or what is used, it took 26 days. As for designing the UML diagrams which help us to create a better application while defining its structure or architecture, it took 22 days. Writing report part 1 which took 15days, presentation which took 3 days, develop the database took 2 days, for front End will take 58days, back End will take 38 days, and for Testing it will take 15days. Also we can realize that in parallel to all these I'll be learning android coding to create a native android application.

In reference to this graph, we can conclude that each task has a level of importance. We have to concentrate on some task more than others because it is more critical to the success of the application.

Comparison

In this chapter we're going to talk about 3 different applications and websites that compete with my app. As application: AjMall, OLX and as for website Elmazad.com.

First, we're going to talk about the "AjMall" application. If you download it you can see that it's an online store where users can go shop for products online, pay online, add to shop and to favorites. We're as in my android application the user can add item, services, to sell and can manage items and services we can conclude it's a store inside a store. They can also buy items and services.

Secondly, we're going to mention OLX. It started as an online website where it got popular and then created an application. The use of this store is that users can buy and sell products like my android application. They can post their number, the product title and description. The brand also has different categories where users can organize their products. As for membership, OLX doesn't require one. In my application, the user has to choose between different memberships. the higher the membership, the more he can post items or services online.

Finally, I'm going to talk about Elmazad website. It's a website where users can view items, save to watch list and register without login. After login, they can add items, remove items and watch list. No membership exists to add items or services where as in my android application there exist. Any website requires of the user a browser to open where as an application can be accessed via the phone directly.

We can conclude that any idea can have similar features but it differs in many other ways, like membership, easier access and variety of options like giving a user the option to also sell.

Requirements

In this chapter, we will speak about different requirements that explain the different feature where the user can benefit from.

I. **Functional Requirements:**

Users:

1. **Sign up:**
Users have to provide personal information to be able to login and use the application. He has to provide full name, username, password, email and address.
2. **Login:**
Users have to provide username and password.
Prerequisite: Should be signed up to provide information
3. **Uploading Services:**
They have to provide a title, description, photo and number to be able to upload the item or the service. User has to choose a category, from the provided one, for the uploaded item.
Prerequisite: Should be logged in.
4. **Uploading item:**
They have to provide a title, description, photo and number to be able to upload the item or the service. User has to choose a category, from the provided one, for the uploaded item.
Prerequisite: Should be logged in and should provide a title, description, phone number and choose a category for the item.
5. **Search items:**
They can search for item by writing a brief description or the name in the search bar. They filter by price, region and category. They can also search for items by address.
Prerequisite: Should be logged in.
6. **Search Services:**
They can search for services by writing a brief description or the name inside the search bar. They filter by price, region and category. They can also search for services by address.
Prerequisite: Should be logged in.
7. **Checking items:**
They can check for the uploaded item and they also can hide, show and remove their uploaded item if desired.
Prerequisite: Should be logged in.

8. Updating Account:
They have the option to update their username, password, email and address by providing new ones.
Prerequisite: Should be logged in.

Administrator:

1. Login:
The admin should be provided with existing login info.
Prerequisite: Should be logged in.
2. Add Category:
The admin can add a category by providing its name and also a sub category which a name will be also provided.
Prerequisite: Should be logged in.
3. Remove Category:
The admin has the feature to remove a category from a list.
Prerequisite: Should be logged in.
4. Search items:
He has the ability to check for the item uploaded to the system, by which user and at which time.
Prerequisite: Should be logged in.
5. Search services:
He has the ability to check for the services uploaded to the system, by which user and at which time.
Prerequisite: Should be logged in.
6. Searching Users:
He has the ability to see which users are registered and to check the info of each one.
Prerequisite: Should be logged in.
7. Update items:
the Admin has the ability to hide, show and remove items.
Prerequisite: Should be logged in.
8. Update Services:
The Admin has the ability to hide, show and remove services.
Prerequisite: Should be logged in.
9. Updating Accounts:
He has the ability to change user account from activated to deactivate.
Prerequisite: Should be logged in.

II. **Non-Functional Requirements:**

1. Performance:
We will write a code with less complexity for the application to be efficient and fast.
2. User Friendly:
The application will be easy to use and for every user.
3. Locale:
The application will support 3 different languages: Arabic, English and French.

III. **Software requirements to implement the project:**

1. Front End:
 - Android studio
 - Visual studio
 - JavaScript
 - CSS
 - Bootstrap
 - HTML
2. Back End:
 - Visual Studio
 - .NET framework
 - Node.js
 - Microsoft SQL
 - Postman
3. Microsoft word: to present the idea and to write the report.

IV. **Hardware requirement:** Any mobile device that include android operating system.

Diagrams

In this chapter, we will provide different diagrams like class diagram, use case diagram, activity diagram, and database diagram.

Use Case diagram:

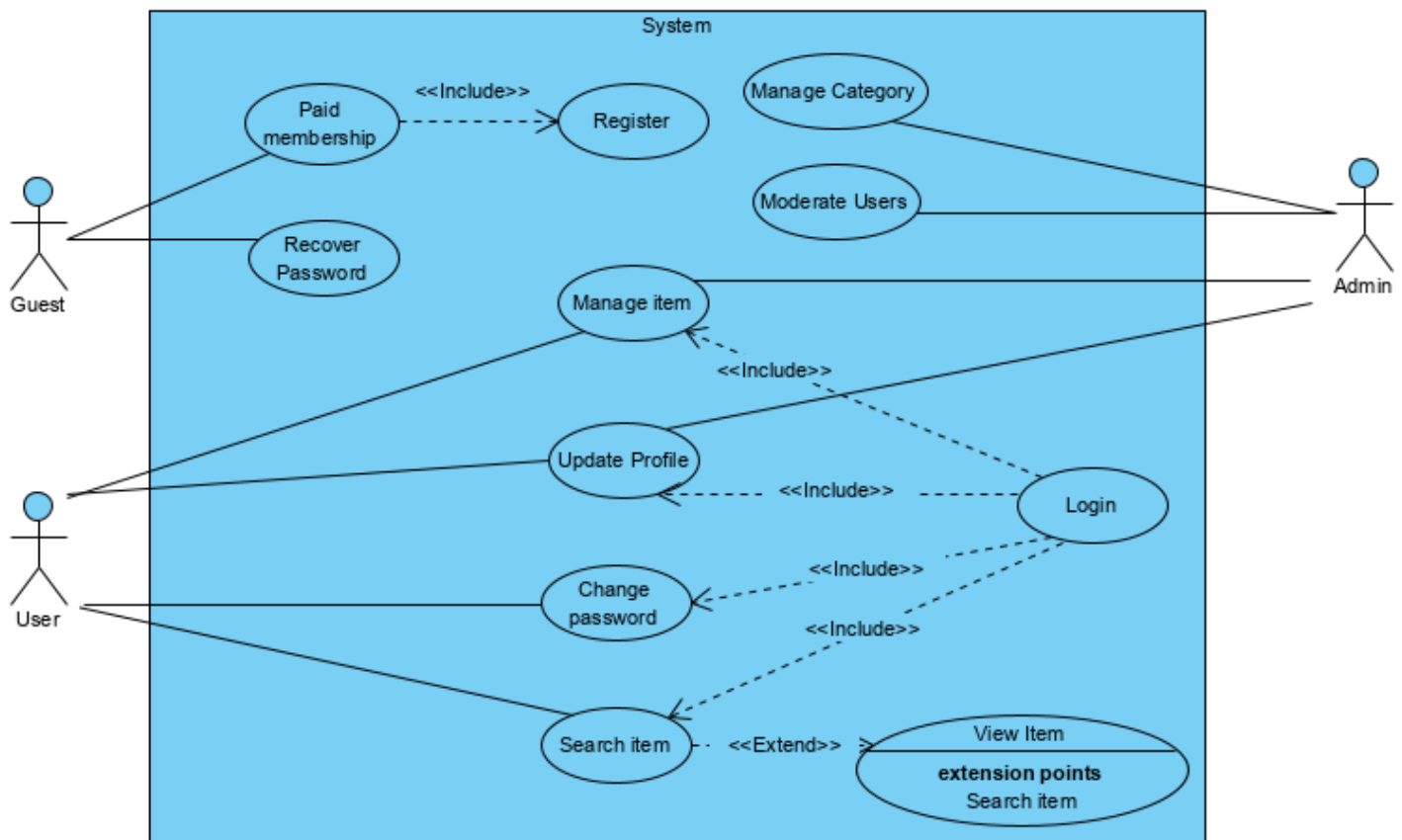


Figure1: Use Case Diagram

This use case diagram shows us that the guest can register and recover password after registering he has to choose membership. The user can manage items, search and view items, update profile and change password. The guest should be logged in to be able to do all these features. As for the admin he can moderate users, manage items and categories.

Class Diagram:

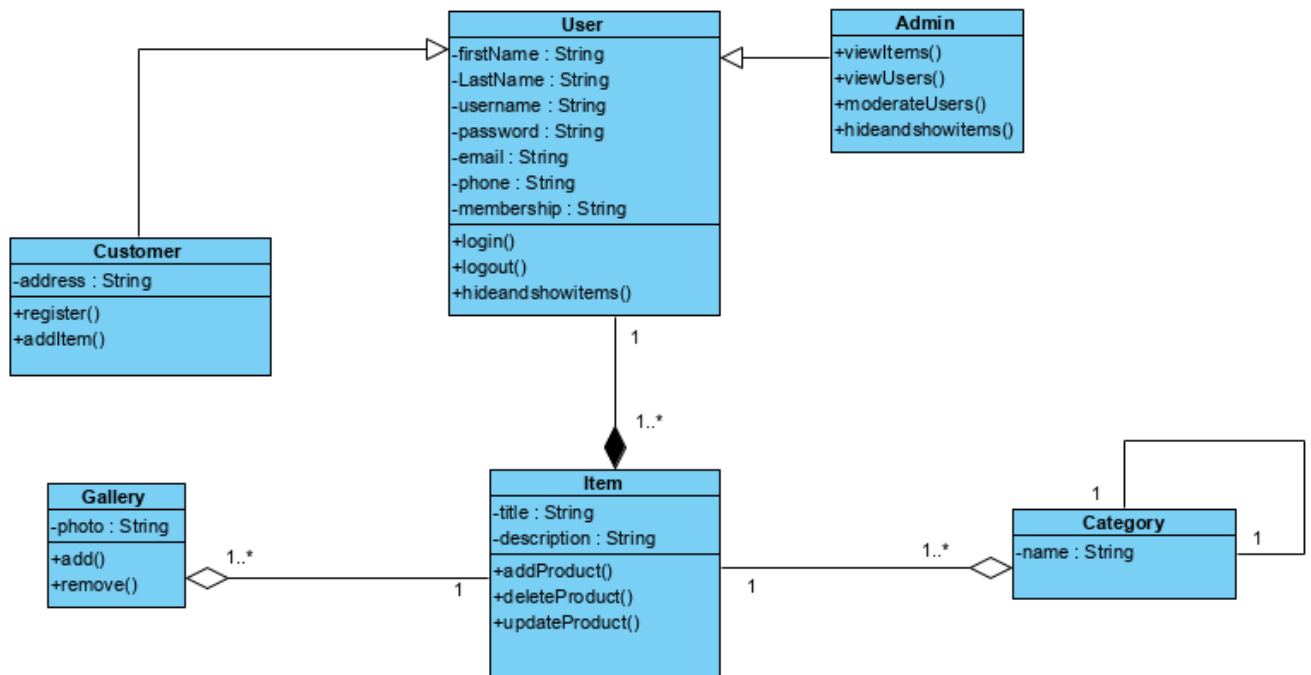


Figure2: Class Diagram

This Class diagram shows us that the user can be a customer or an admin; we're they have different roles. The customer can register and search for item. The admin can view items and users, can manage items and moderate users. Both should be logged in to be able to use all these features. Items can have one to many pictures, title and description where they are organized in a specific category and sub category.

Activity Diagram:

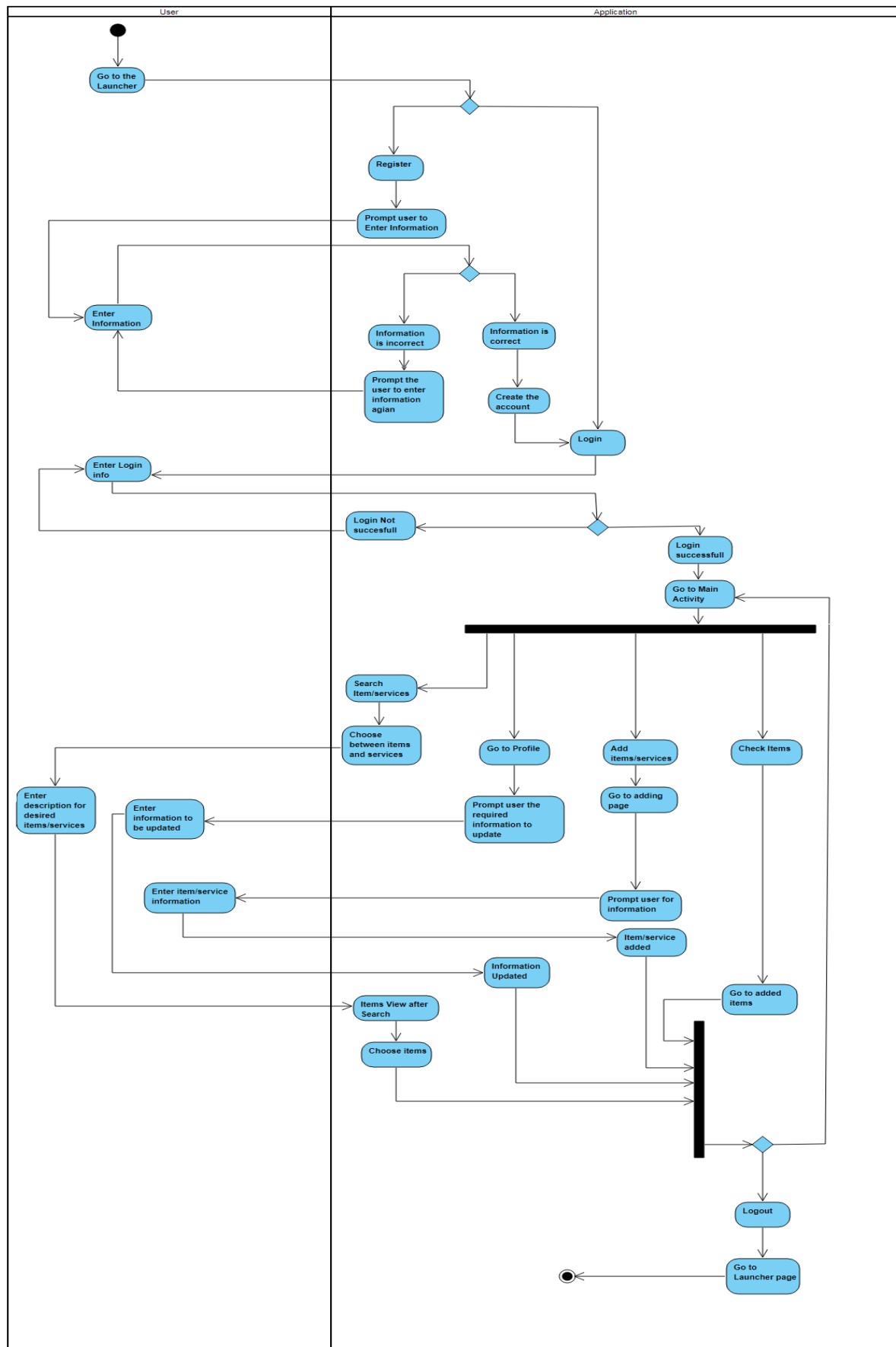


Figure3: Activity Diagram

This activity diagram shows us that a guest must have an account to be able to access the features required to use this application. The user after login he can search for items and service, access his profile info, add and check his items.

Database Diagram:

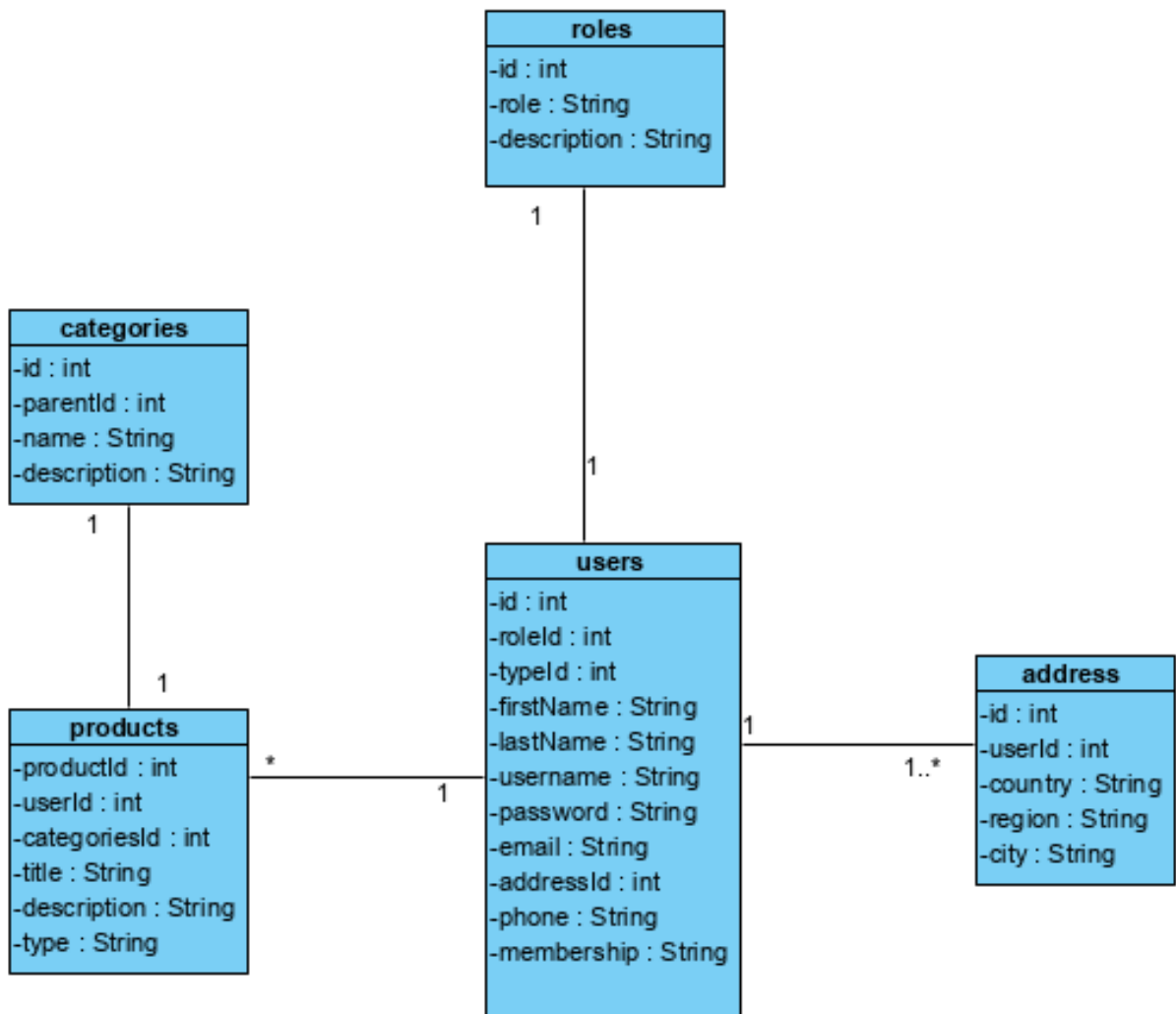


Figure4: Database Diagram

This database diagram explain to us that each user will have a specific role, one too many addresses and zero to many products. Where the products will be saved in specific categories and sub categories. All these information will be saved in a database.

Implementation

Testing

Results and discussion

Conclusion

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