PROJECT APPROACH

Project Approach

Purpose

Create an effective solution for proposed online shopping application. We are going to create an attractive, user friendly multi-functional, quickly accessible system. Main reason of creating this application for sharp our front end and back end skills to build our career in a respective way with latest technologies.

Project Approach Description

This project mainly forces on two major parts.
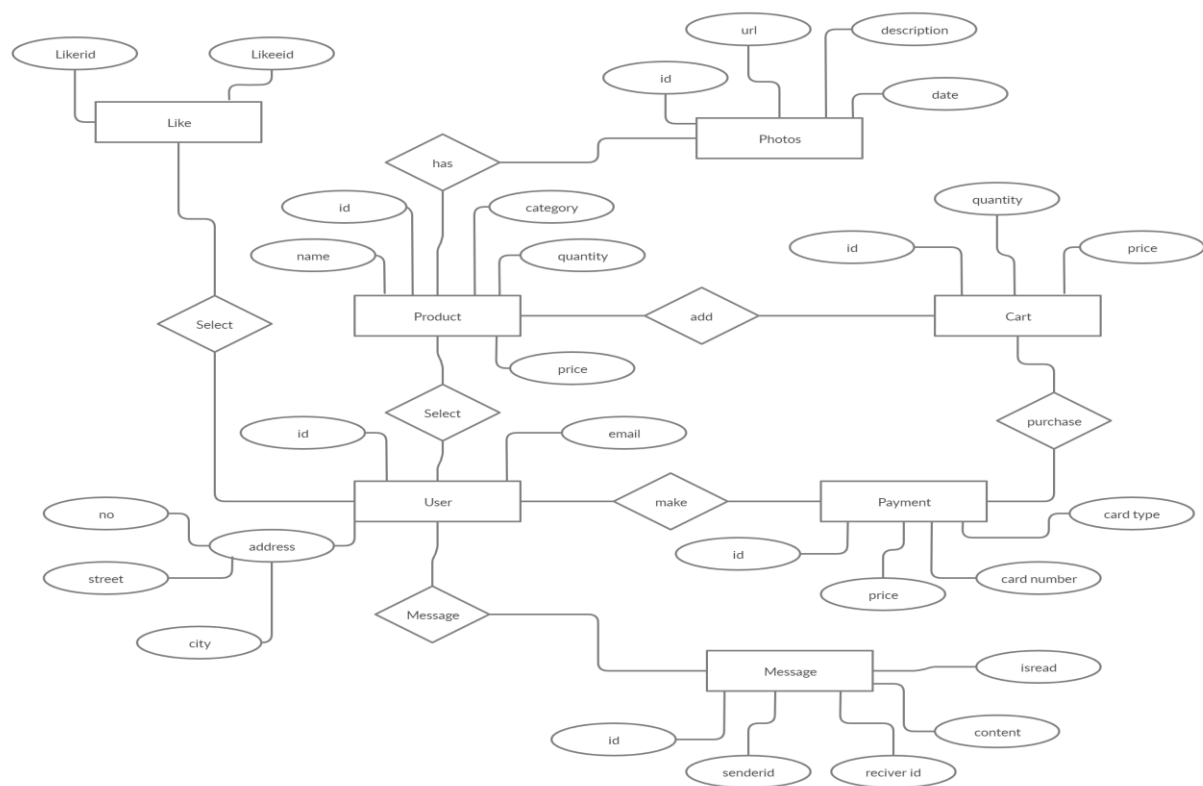
- Front-End
- Back-End
- Database

Front-End

To develop project front end in this application we are choose the latest and most used online JavaScript framework Angular 8. Angular 8 helps to keep application as a single page application without any page loading latency. Angular brings many features lacy loading, new IVY rendering engine, Bazel building engine, typescript 3.4 support.
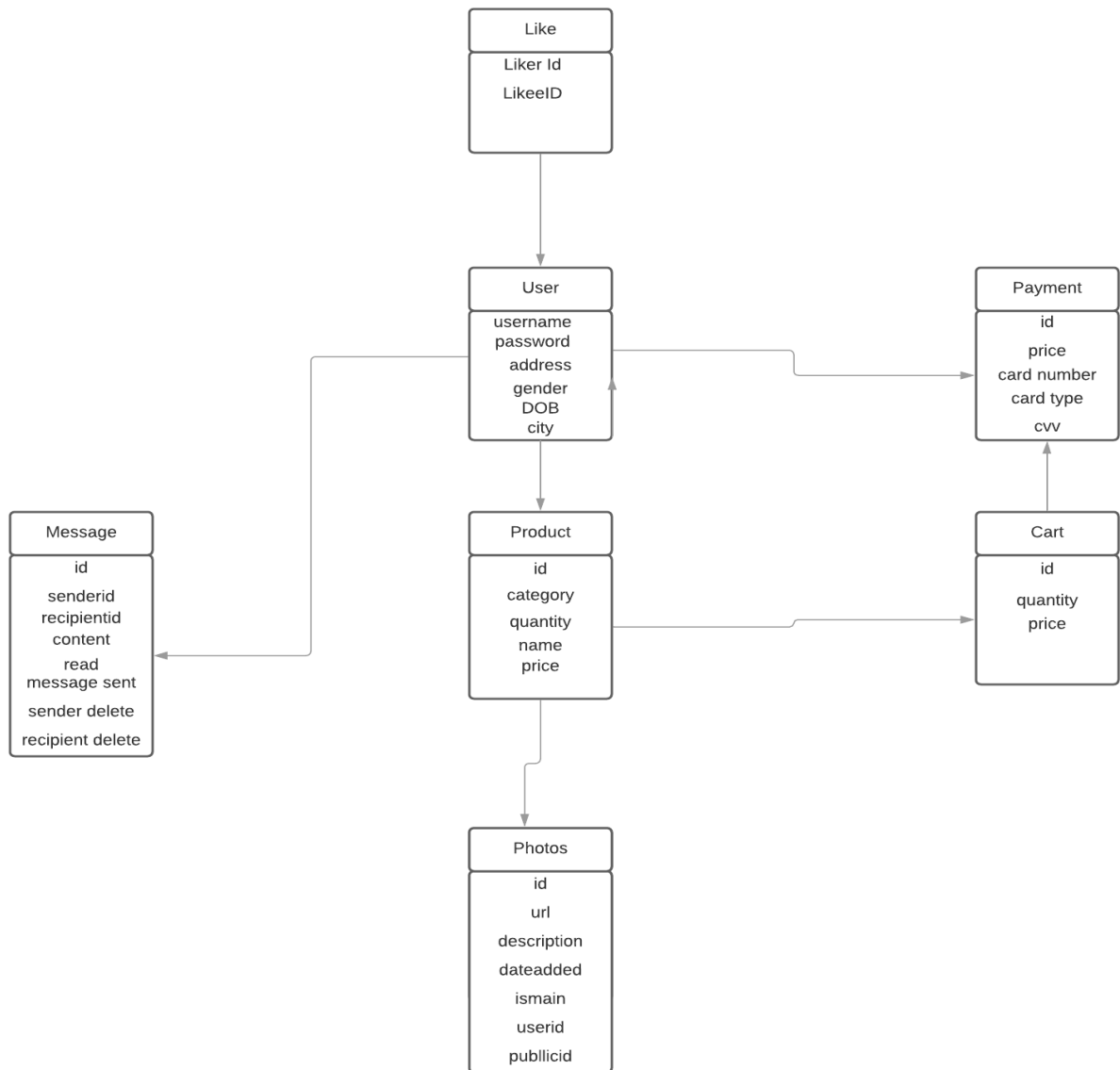
Back-End

To develop project back end in this application we are choose the latest and most powerful Dotnet Core 3.1. Dotnet core is most powerful web API solutions build by Microsoft and it helps to create powerful, cross platform web API's. To build web application we using MVC pattern, because it easy to connect with Angular application. MVC pattern help to design Database using Code first Approach.
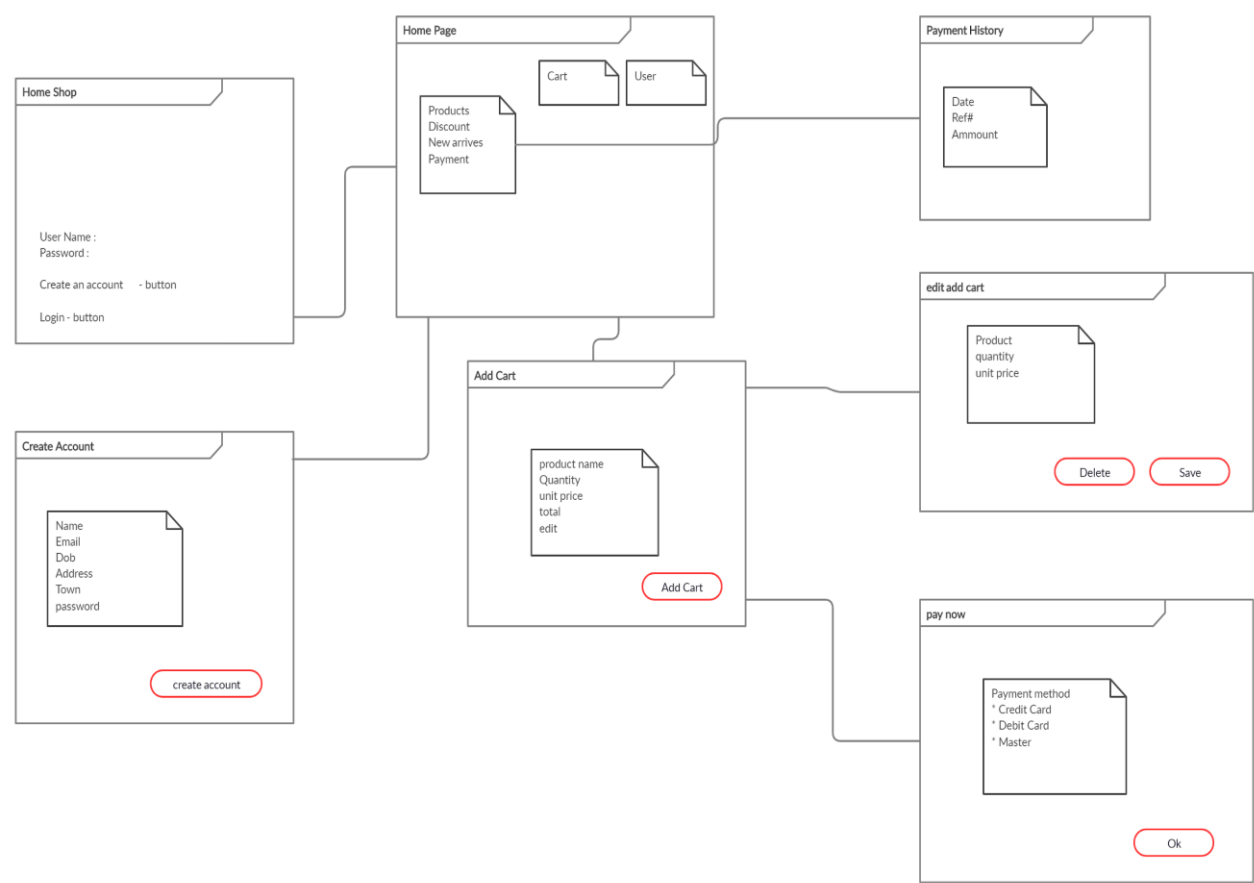
Database

We are using light weighted and speed SQL database call SQLite DB-Browser. It's easy to use and we can quickly generate data using API calls.

Database Diagram

Like
- Liker Id
- LikeeID

User
- username
- password
- address
- gender
- DOB
- city

Payment
- id
- price
- card number
- card type
- cvv

Message
- id
- senderid
- recipientid
- content
- read
- message sent
- sender delete
- recipient delete

Product
- id
- category
- quantity
- name
- price

Cart
- id
- quantity
- price

Photos
- id
- url
- description
- dateadded
- ismain
- userid
- publlicid

Project Design

Home Shop

User Name :
Password :

Create an account   - button

Login - button

Home Page

Cart   User

Products
Discount
New arrives
Payment

Payment History

Date
Ref#
Ammount

edit add cart

Product
quantity
unit price

Delete   Save

Create Account

Name
Email
Dob
Address
Town
password

create account

Add Cart

product name
Quantity
unit price
total
edit

Add Cart

pay now

Payment method
* Credit Card
* Debit Card
* Master

Ok

Reasons for this Approach

This system needs to be user friendly and quickly accessible. API has ability to allow many concurrent users at one time.

Why MVC?

MVC helps to keep solution files clear and easy to maintain communicate between layers. And it helps to use code first approach in effective way.

It is an architecture or a software design pattern that makes creating huge applications easy. It does not belong to specific programming language or framework, but it is a concept that you can use in creating any kind of application or software in any programming language

Why Code First?

The main advantages of using codefirst are:

- **Development Speed** - You do not have to worry about creating a DB you just start coding. Good for developers coming from a programming background without much DBA experience. It also has automatic database updates so whenever you model changes the DB is also automatically updated.
- **POCOs** - The code is a lot cleaner you do not end up with loads of auto-generated code. You have full control of each of your classes.
- **Simple** - you do not have a edmx model to update or maintain

Technologies and Tools

- Visual Studio Code
- Nodejs
- Angular 08
- Postman
- SQLite DB browser
- Bootstrap
- Entity Framework
- Dotnet Core 3.1
- Git

According to the above requirements and Technlogies, hope we can come up with this system as soon as possible after a good testing approach.