eMarket (Sell out Old, Bring In New)

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Team CLOUDERS

VIRTUAL INNOVATION DAY

Vision

eMarket is fully cloud web application designed to sell buy and sell the products without any fee and especially built to help the local business to keep running which is been affected due to COVID-19 pandemic.

Most of the people need to pay certain amount of fee to sell their products but with the development of eMarket application, it will be completely free such that normal people, local business can sell their products easily. The site will also encourage the user to follow the guidelines provided by the CDC in order to prevent and protect from COVID-19.

Mission

The main motive of project is to help the local business and sellers to sell their products for free of cost among many buyers nationwide. In order to succeed on it, we are building the cloud-based web application using Amazon Web Services to provide the effective and better services to the user. In this website, user will post their selling products and list them. Similarly, there will be the way that user can promote their products which will be the source of income to run our website. We are using the Java programming language and spring framework and the tools that we are going to use in this website are:

1) Amazon Web services
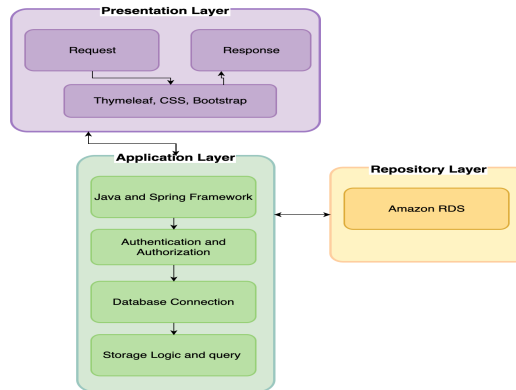2) IntelliJ IDEA Ultimate
3) Tomcat

Requirement

The requirements described below are the functionality of application that customer would importantly expect from our applications. IntelliJ IDEA Ultimate
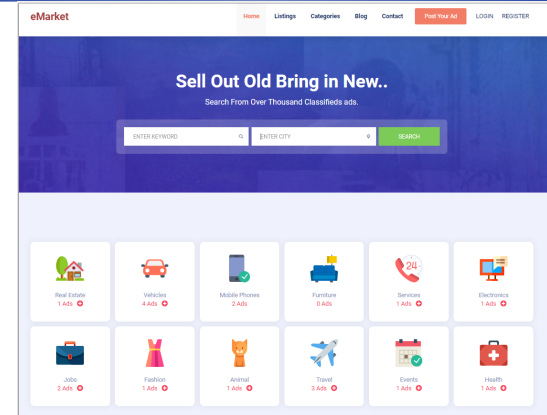
- The system shall have a simple and easy to navigate graphical user interface homepage for the user's conveniences and use.
- The application should be stable and shouldn't be crashing every time the users open the web page.
- The application shall have the option to display the information regarding the safety measures due to COVID-19, app information and what it is about, and other guidelines.
- The system shall have the registration form in order to register for the users to fully use the services provided in the application.
- The system shall authenticate and authorized the valid user credentials like email address and password that were used while registration.
- The system shall have the option to reset the user's password in case the user don't remember it.
- The application shall have the user dashboard to see the user status such as product they listed, seller-rating, etc.

Detailed Design Phase

eMarket consists of three different layers as Presentation Layer, Application Layer, and Repository Layer as shown in the figure below. This architecture layer gives an easy and simple approach showing how the information is passed, received, and stored. The top-level of the system layer allows the user to request and display the response received from the application layer whereas the application layer will perform the business logic using the data received from the repository layer doing the CURD operations.

Prototype

Future Plans

Some of the Future work that we are planning to work on:

- Use of the Amazon S3 to save all the buckets and only store metadata in the database pointing to that specific S3 object.
- Use of the Amazon Aurora serverless Database instead of RDS in order to save cost, and increase efficiency.
- Expand the application's platform to mobile devices (i.e. Android and iOS)

References

1. Business Insider. COVID-19 BUSINESS ECONOMY, 2020.