# Chapter 3:

# 3.1 Design:

Project design is early phase of the project where key’s features, structure, criteria for the success and all the major deliverable are planned out. By using different types of tools, technique, models first implemented in the paper or in the design tool and later implemented in the real system. we have design the system for the grocery store. Design is the most important part and its play the vital role in my project.

In my project design phase generate a variety of different output, including final class diagram, behavioral model, flow chart, database design, prototype of the system, user interface and also give an over view for the backend and the front of the system.

# 3.2 structural model:

## 3.2.1 class diagram:

Class diagram is static diagram which represent static view of the application. It describes the attributes and the operation of a class and also constraints on the system. Its shows a collection of classes, interfaces, association and constraints. It referred as the blueprint of the system.

The main purpose of the class diagram is:

* Analysis and design of the static view of an application.
* Describes the responsibilities of a system.

# Behavioral diagram

# Activity diagram:

Activity diagram is another important part of UML diagram to describe the dynamic aspect of the system. It is important part in the project, it shows the dynamic representation of the system in my project. It shows the flow of one activity to another activity in the system. It can be described as the operation of the system.

## sequence diagram:

sequence diagram are interaction diagrams that detailed how operation are carried out. it displays and explain the object relationship and interaction between them. It helps to represent the details of use case diagram. The purpose of the sequence diagram is used to show the relations between objects in the sequential order that those interactions occur.

# 3.4 Database design:

It is a collection of processes that facilitates the designing, developing, implementation and maintenance of the data management system. A good database is important in ensuring reliable data, elimination of data redundancy, efficient execution of queries and high performance application.

## 3.4.1 Data dictionary:

Data dictionary consists of database metadata i.e. data about the database. It records about object in the database. It consists of table name, relationships, keys and the explanation the function elements. It is important as it contain information such as details about all database tables and their representations, physical information about the tables such as where they stored and how.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Datatype | Constraints | Nullable | Description |
| Cid | Integer(10) | PK | No |  |
| email | Varchar(100) | - | Yes |  |
| fname | Varchar(50) | - | Yes |  |
| lname | Varchar(50) | - | Yes |  |
| phone |  | - | Yes |  |
| address | Varchar(50) | - | Yes |  |
| Password | Varchar(50) | - | Yes |  |

Registration

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Datatype | Constraints | Nullable | Description |
| Pid | Integer(10) | PK | No |  |
| image | Varchar(10) | - | Yes |  |
| pname | Varchar(100) | - | Yes |  |
| details | Varchar(150) | - | Yes |  |
| price |  |  |  |  |

Product

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Datatype | Constraints | Nullable | Description |
| id | Integer(10) | PK | No |  |
| email | Varchar(100) | - | Yes |  |

Subscription

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Datatype | Constraints | Nullable | Description |
| fid | Integer | PK | No |  |
| fullname | Varchar(100) | - | Yes |  |
| email | Varchar (100) | - | Yes |  |
| subject | Varchar(100) | - | Yes |  |
| message | Varchar (100) | - | yes |  |

Feedback message

## 3.4.2 Entity relationship diagram

An entity relationship diagram shows relationships entity sets stored in the database. Its defines the entities, their attributes and showing the relationship between them.

# 3.6 prototyping

A prototype is a basic working sample, model, mock-up or just an imitation of the actual product based on which the others forms are developed. Motive behind prototyping is to validate the design of the actual product. It may also have called as it is first step of transforming the virtual or conceptualized design into the real physical form.