E-Commerce System

Part 1: Overview & Software Requirements Specification:

1) Introduction

a) Purpose:

The purpose of this document is to build an E-Commerce system to provide products to make the service more comfortable for the customers to increase our product's sales.

b) PROJECT SCOPE:

the purpose of the E-commerce system is to ease selling operation and to create a convenient and easy-to-use application for the customer, trying to sell products and deliver them to customer's homes. The system is based on a relational database with products and categories. We will have a database server supporting the update of what the customers want and always check the database to ensure that the E-commerce able to provide these needs with the best online services.

c) Project Glossary:

Admin: the person who control the system and manage the database, he can update products and category.

Customer: A single user of E-Commerce website that is buy some products and shopping in this website. The program's main component (the data) resides on a centralized server, with smaller components (user interface) on each client.

Category: collection of products that have the same type

Register: provide customer make an account to buy products

Add to cart: provide customer saving his products that need to buy

User interface: this help users to interact with the system in easy way

Database: A collection of information and details about products the users stored in the E-Commerce database. This information may be created and stored in a database management system (DBMS).

d) List of the System Stakeholders:

Type of stakeholders:

• Project Manager

• Project build team (developers)

• Customers

• The project sponsors

Key Stakeholders:

Internal Stakeholder:

- Project Manager: the member of the team directly involved in project management

- Project build team: the group performing the work

External Stakeholder:

- Customer: person or organization that will use the results of a project

2) SRP (Software Requirements Pattern):

A pattern, in general, describes a problem which occurs repeatedly.

It in a way reuses the abstract knowledge about the problem and then describes the core of the solution to that problem.

A pattern therefore, is a description of the problem and then reveals the essence of its solution - which can be reused infinitely.

Requirements patterns help reusing the knowledge of capturing required functionalities and properties of a system.

In all but trivial systems you'll have requirements that are similar in nature to one another or that crop up in most systems-and probably lots of them.

For example, you might have a number of inquiry functions, each with its own requirement. When specifying a business system, a significant proportion of the requirements fall into a relatively small number of types.

Requirement pattern: an approach to specifying a particular type of requirement

3) Functional requirements:

a) User

1-User Can Search About all Products. → (Cust.)

2- Show All information About Products () → (Cust.)

3- Update cart → (Cust.)

4- Make order() → (Cust.)

5- Add/update/delete Products/categories (admin)

b) System

1-Store All Products Details.

2-System support user Products Details.

3- System generate unique id for each member

4) non-functional requirements:

a)

TYPES OF NONFUNCTIONAL REQUIREMENTS:

-Look-and-Feel requirements

-Usability & Humanity requirements

-Performance requirements

-Operational & Environmental requirements

-Maintainability & Support requirements

-Cultural requirements

-Legal requirements

-Security requirements

b)

Product Requirement:

-The Market shall be available during normal working hours (24)

-lead time

- Downtime within normal working hours shall not exceed five seconds in any one day.

-order delivered successfully to correct customer.

Organizational Requirement:

-Users of the system shall authenticate themselves using their ID

-The system must secure the data of customer.

External requirement:

- The system must secure the id & pass of visa card

c)

usability:

 measure: any one can use the system in easy way, admin can use all system functions and able to enter the database and change it. Ease of buying and selling to the customer and admin, customers should have the option to see what is the product they ordered and the date will arrived.

performance

measure: The landing page supporting one thousand users per hour must provide 6 seconds or less response time in a Chrome desktop browser, all products information should load in 2 seconds or less including the rendering of text and images, Customer orders shall be backed up at least once per month to prevent data loss

security

measure: The System shall not Perusal in users personal information or what they are buy, if customers forgotten password customers may request a temporary password, and shall receive a link sent to their primary email address
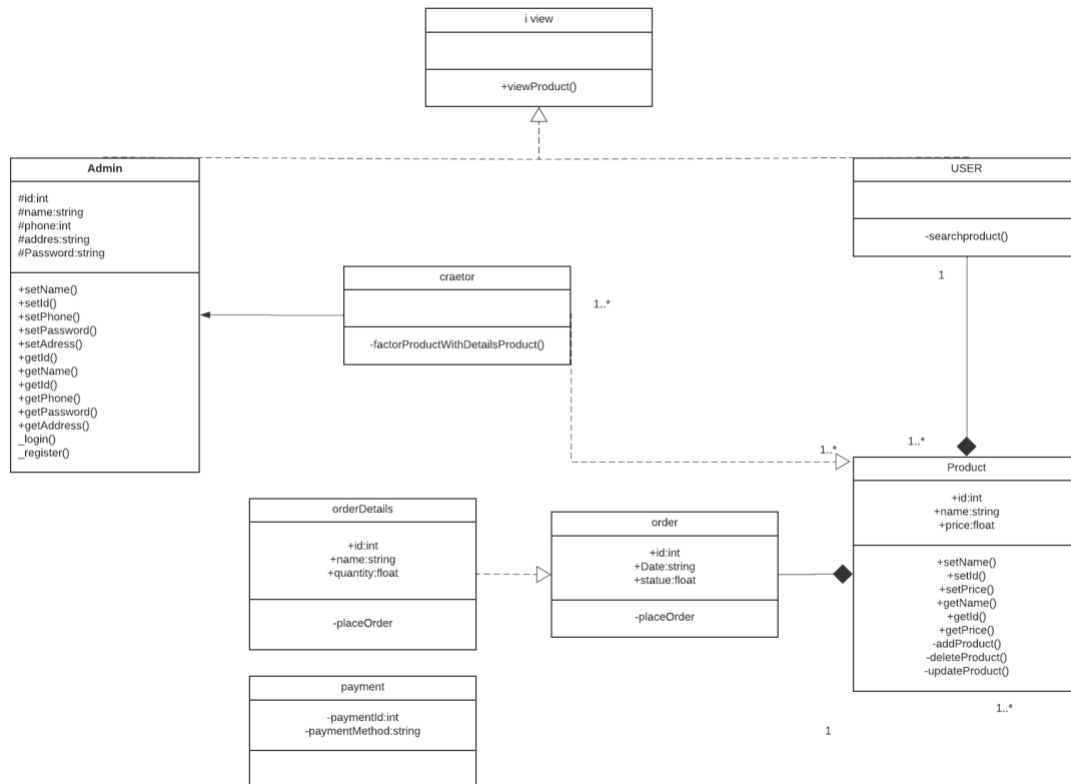
5) Design & implementation Constraints:

Effective interface which user can easily interact with:

o Using HTML To get tools , buttons and links

o Using Fontawsome to get fonts and icons

o Using Asp .net (c#) Lang. To Developed The System

Part 2: System Design & Models

CLASS Diagram:

DataBase Schema:

Tbl_Category
- Properties
  - CategoryId
  - CategoryName
  - IsActive
  - IsDelete
- Navigation Properties
  - Tbl_Product

Tbl_Product
- Properties
  - ProductId
  - ProductName
  - CategoryId
  - IsActive
  - IsDelete
  - CreatedDate
  - ModifiedDate
  - ProductImage
  - IsFeatured
  - Quantity
  - Price
- Navigation Properties
  - Tbl_Cart
  - Tbl_Category

Tbl_Cart
- Properties
  - CartId
  - ProductId
  - MemberId
  - CartStatusId
- Navigation Properties
  - Tbl_Product

Tbl_MemberRole
- Properties
  - MemberRoleId
  - MemberId
  - RoleId
- Navigation Properties
  - Tbl_Roles
  - Tbl_Members

Tbl_Roles
- Properties
  - RoleId
  - RoleName
- Navigation Properties
  - Tbl_MemberRole

Tbl_Members
- Properties
  - MemberId
  - FirstName
  - LastName
  - EmailId
  - Password
  - IsActive
  - IsDelete
  - CreationOn
  - ModifiedOn
  - Tbl_MemberRol...
- Navigation Properties
  - Tbl_ShippingDet...
  - Tbl_MemberRole

Tbl_Shipping....
- Properties
  - ShippingDetailsId
  - MemberId
  - Adress
  - City
  - Stat
  - Country
  - ZipCode
  - OrderId
  - AmountPaid
  - PaymentType
- Navigation Properties
  - Tbl_Members

Tbl_SlideImage
- Properties
  - SlideId
  - SlideTitle
  - SlideImage
- Navigation Properties

Tbl_CartStatus
- Properties
  - CartStatusId
  - CartStatus
- Navigation Properties