Sales Management Portal

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Abstract

The Sales Management portal is a web-based application where the users will be able to make purchases of different leather-based products available at the store. The web-based application will be having three levels of access where each user will have different menu options available for performing various levels of tasks based on the level of authorization. The web-based application will be dealing with the selling of the leather-based products and generating the sales information to create plans and deals for the future to gain more profits. The importance of the project lies in the generation of the sales data by which the vendors or the sellers can gain knowledge about the products and the likeliness to buy the product.
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1. Feature Description

1.1. Competitive Information

The primary competition to the vendors is the availability of other products at less prices and quality. Hence the vendors have made choice to create an online market for their products by which they can generate revenue at much better price and giving better deals if the purchase is made online thereby increasing the extent of their products reach to the customers. This is a good marketing tactic where more customers can be reached with the products than creating a store at a fixed geological location and promoting it.

1.2. Relationships to other projects

The project is like the other online shopping based web applications such as Amazon, BestBuy, eBay and others. These giants do sell the products that will be sold at the project being developed but the primary concentration of the vendor will be dealing with the quality of the leather products that are being crafted. The vendors will be using the “Full Grain Leather” for manufacturing all the leather products where it is one of the finest leather available in the market. Though the price of the products might be high but the quality in the product is what a customer can expect from the project.

1.3. Assumptions and Dependencies

As the project is an online based web application it is susceptible to unauthorized access of the both the database and others. At present the web application does not have any kind security measures taken to prevent any sort of unauthorized access of user personal information.

1.4. Future Enhancements

The below is the list of future enhancements that can be expected from the web application.

- Development of a secured transactions by implementing HTTPS protocols to protect the concern of the user.
- A more user friendly design can be developed where at present a sample base design has been developed.
- Creation of more sophisticated web logs by which more user activity can be tracked by which the products can be organized accordingly to increase the revenue of the vendor at the online store.

2. Technical Description

The project is being developed using the C# .Net at the front-end and MS SQL at the back-end. Visual Studio 2016 and MS SQL Management Studio 2016 are used a IDE or Integrated Development Environment. The application is developed using the predefined sample C# web site where it has the mobile compatibility gaining few styles from the bootstrap. Apart from this the web application is user friendly as it is compatible with different screen ratios such as large screen, medium screen, small screen and the mobile screen. In addition, the sales information that has been generated from the purchases can be sorted based on the products and the other features.
2.1. **Project Architecture**

The project is developed under the Three Tier Architecture where the code of the project is divided into three layers as follows.

- **Presentation Layer**
  
  In here all the code that deals with the styling of the project can be seen here. Most the components used in here will comprise of the stylings and other elements that bind the data from the logic layer.

- **Logic Layer**
  
  In here the code related to logic that makes any kind of validations before inserting or retiring the data from the database will be made in here. In addition, the layer does all the logical functions that must be made at the application and present a simplified part of the results to the users making it easy to understand for the user.

- **Data Layer**
  
  In here the code that reads or writes the data into the database can be seen. All the code that can be seen in here would be the insertion, selection and update queries that can be run on the database.

2.2. **Project Information Flow**

The information flow in the project can be divide into three categories where the flow of information is based on the level of authorization the user has. The level of authorization the user has at the project is divide into three categories which are as follows.

2.2.1. **User**

In here the below diagram depicts the flow of information between each pages the user has access to the application starting from the sign in to sign out.
2.2.2. Seller
2.2.3. Manager

2.3. Risk Assessment and Management

The primary risks that can be seen in the project when it goes live is the payment mode. At present the payment mode that is present at the web application is not secured creating a possible loophole for the intruders in gaining access to the user’s information where the security of the web application can be compromised. This can be compromised by implementing some security feature as specified in the future enhancements.

3. Project Requirements
3.1. Identification of Requirements

During the development of the project a list of requirement have been generated which are achieved by the end of the project development and the below is the list of requirements that can be seen in the project.

<SalesManagementPortalTeam2_001_SignInForm>

The sign in form creates a form of authentication for the user where the session variable for both the user id and the role of the user signed in will be created. These session variables will be used at different process to create menu actions for the users. The sign in and sing out form creates a mode of authentication by which how long the session variables of the users need to be active so as to perform different activates at the application.

< SalesManagementPortalTeam2_002_Dashboard>
Based on the role of the user who signed into the system the dashboard or the menu option that are available to user vary. A more detailed version of the menu options available to the user with different levels of authorization are defined in section 2.

**<SalesManagementPortalTeam2_003_SessionVariable>**

The session variables are created when the user signs into the application from the sign in page and the session variable are cleared or deleted when the user signs out. This created a mode of authorization as at each page the user access during the page the session variables are checked to perform authentication for the user. All the session variables are checked during the page load at each page.

**<SalesManagementPortalTeam2_004_ManagerConsole>**

The manager console provides the user to perform actions such as view orders, sales data, products and contact other users depending on the need. This console can be viewed by the users who has the role specified as “Manager” and this role is retrieved when from the database when the user signs into the system.

**<SalesManagementPortalTeam2_005_SellerConsole>**

The seller console deals with the users who would act as sales person updating the inventory and the application data. They have access to add the products, change the price of the products, view the sales data of the products and others. They can even communicate with the normal user for any assistance with the products and the purchase.

**<SalesManagementPortalTeam2_006_UserConsole>**

In here this console deals with the normal users who register themselves at the application. The user actions include making purchases, tracking the delivery details of the products, communicating with the sellers for any sort of assistance in making the purchases and other activities.

**<SalesManagementPortalTeam2_007_SalesInformation>**

All the purchases made by the user will be saved in the database and this information is displayed for the manager and the seller. The manager and the seller will be using this information in making more products and understanding the user needs in total.

**<SalesManagementPortalTeam2_008_DataSalesReports>**

In here the reports will be generated for the sellers and managers based on the products and other valid filters. These filters will help them in understanding the purchase trends of the users.

**<SalesManagementPortalTeam2_009_AddingProducts>**

The web application will be having a page accessible by the seller where the seller can update the application database based on the details from the inventory. This is a continues process where the price of the products varies from time to time and these updates will be made accordingly.
In here the updates about the products that are already in the inventory will be made. The updates will be handled by the seller where any sort of updates to the products can be made. On Whenever the user makes a purchase, the purchase details will be saved in the database where this data will be used by the managers and the sellers in generating the sales report based in different criteria’s.

In here the user will be having access to communicate with the seller where he can provide feedback to the seller about the product and request for any sort of assistance with the products available at the application.

The internal communication system allows the manager and the sellers to communicate with each other at different situations. This form of communication creates a more secured form of communication where the users need not depend on third party applications to communicate with others.

This feature allows the user to keep a track of the products that have been ordered by the users and keep a track on the status of the product. The tracking mechanism creates the transparency to the users in understanding the status of the products and the quality of work that can be expected from the vendor.

In here all the details about users such as their personal details and login details will be saved in here. In the database, these details are saved in separated tables where one has all the personal details and the other having all the account details.

The operations and the administration will mostly be maintained by the manager and the seller where the manager is responsible for generating the sales report and keep a track on the products being ordered and being delivered and other status. On the other hand, the seller is responsible for managing the price of the product, get updates from the inventory and update them accordingly in the database and other related activities.

The maintenance of the application involves with any sort of updates that can be made to the application. The updates include addition of new features to the application like in design or security perspective.
3.4. Security and Fraud Prevention

At present an authorized access to the web application is provided by which only authorized users will be able to access the application and will be able to use the services. Apart from this no other security protocols are implemented that can protect the identity of the user while making any sort of payments.

4. Project Design Description

The project design starts with the division of the user into different categories and providing access to the user for the pages based on the level of access they have. As specified earlier in the application three levels of users can be seen which are as follows.

- Manager
- Seller
- User

4.1. Project Design

The below diagram depicts the access of user to different pages based on the level of access they have in the application.
4.2. Database Design

5. Project Internal and External Interfaces
5.1. Impacts and Specifications

The impacts of the application would be related to the security concerns that the application poses to the users during the process of making the transactions. The implementation of the protocols would eliminate any sort of security concerns but its impact at present would be the privacy of user and other information of great value.

6. Project Design Units
6.1. User Module
6.1.1. Functional Overview

In here the user who have the base access to the application will come under this category. The users will be able to register too under this category and access the application. The users will only be able to have minimal functions within the application.
6.1.2. Requirements

The requirements can be defined as the menu options that can be offered to the user who fall under this category. The below are the menu options or the features that can be accessed by the users which are as follows.

- View products

In here the user will be able to view the list of products that are available to purchase and add them to the cart from the available menu options.

- Orders

In here the history of all the orders made by the user can be seen. The purchase history helps the user to make a list of all the goods or the products that have been purchased by him.

- Cart

In the view orders the user will be given access to add the products to the cart and once he comes to the dashboard the user will be able to make payment for the products he would like to pay and confirm the purchase of the product.

- Trak Package

Once the user makes the payment the product tracking initiates where the user will be able to track the location of the package and know its expected delivery.

- Contact Seller

This feature enables the user to contact the seller of the products and request any sort of assistance from him. The user can also give any sort of feedback to the seller based on the products he purchased and this feedback will be used to make any updates to the products.

6.2. Seller Module

6.2.1. Functional Overview

In there the user will be acting as seller where the primary role of the user would be to update the products that are available to the users. Apart from this the seller will be the point of contact for the users in case of any sort of assistance in purchase or giving feedback regarding any product.

6.2.2. Requirements

The below is a list of action that can be performed by the seller.

- Add Products

In here the user will be able to add products to the inventory and only the user with role as seller will be able to add the products to the application database.

- Updates Products
In here the user will be given access to update the products that have been added previously by him. The updates include change of price, quantity and other fields.

- **View Products**

In here the user will be able to view the products and they will be displayed the same to the normal user too. In here the user will not be able to make any modifications to the products.

- **View Sales**

In here the user will be able to view the sales information like the number of products that have been purchased by the users and the date of purchase and other information. This data helps the seller to understand the buying patterns of the user and update the products accordingly.

- **Contact**

In here, when the user will be able to communicate with the seller the user can respond to the user from here. The seller will be able to communicate with the normal user or the manager from this page.

### 6.3. Manager Module

#### 6.3.1. Functional Overview

The manager does not have much actions to perform rather perform more managerial activities which are listed as below.

#### 6.3.2. Requirements

- **View products**

In here the manager will be able to view the list of products that have been added to the database by the seller. In here the manager will only be able to view the products but will not be able to make any form of modifications to the products.

- **View Sales Data**

In here the manager will be able to see the list of products that have been purchase by the users and sort the list based on different criteria such as products type, data purchased and others.

- **View Orders Data**

In here the manager will be able to view the list of products that have been ordered by the users and their delivery status. This feature enable the manager to keep a track on the products that have been dispatched, delivered and the number of products that are available in the inventory.

- **Contact**

This feature gives access to the manager to communicate with the user and make necessary changes accordingly.
7. Screenshots

7.1. Dashboard

7.2. Products list
7.3. Add to cart

7.4. Communication
7.5. Checkout

8. Open Issues

The web application payment mode is not optimal and more security protocols need to be implemented in case the project will be released on the internet.

9. References

