

Original Article

Implementation of Smart Online Shopping Application for Idhaya Hostellers

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Abstract: Smart Online Shopping Application for Idhaya hostellers is a web-based application. The students of Idhaya Engineering College for Women, who belong to the Entrepreneurship Development Cell (EDC) are running Idhaya Hostel Canteen. In order to develop the Entrepreneur mindset, the interested students join and run the canteen. Stationery items, Toilet things, Costumes, Snacks, Fresh Juice and Food items are sold in the canteen. But the existing system is manual and paper-based work requiring students to queue for long periods to place orders and get the service. The online shopping project is proposed to solve this problem and bring innovation to the existing system. Smart online shopping application allows students to order the items they need online and get them without standing in queues. Time-saving and user-friendliness are the main advantages of this Smart Shopping Application. Online shopping is fast gaining ground as an accepted and used business paradigm. Smart shopping apps include e-menu cards where students can get all the items they need (food items, notebooks, books, paper, stationery, etc.). In this project no need for paperwork. After placing the order, the details go to the EDC student, who takes care of the delivery of the item as early as possible. Students placing orders can pay the price of the ordered items online or directly as cash on delivery. This saves student's time. As a result, there will be quick and user-friendly service for the students. No queues can be formed waiting for the item purchasing and manual support and usage of electricity will be reduced at large in all aspects.

Keywords: EDS, Online Shopping, Stationery Items, Costumes, Snacks, Fresh Juice, Food Items.

I. INTRODUCTION

Many people have long considered shopping to be a form of exercise. Online shopping is a common practise. This application's goal is to encourage an electronic point of contact for online retailers. Users would have a pleasant shopping experience because the system would be simple to use. A online index that offers a quick and practical way to find goods that are well-defined for their needs. The most recent and exciting technology currently available is internet technology. It has become the focus of network applications in the present with its rapid development and many conveniences. This innovation affects both traditional industries and online commerce, with online shopping serving as a notable example [1].

The system has understood the rationale for online purchasing, and since there are no time or place restrictions, it is convenient to understand all product information. The economic growth has greatly benefited from this development model. Quick and simple ways to pay have also been made possible with the introduction of trading platforms like mobile and internet payment [2].

The study, which is divided into numerous sections, discusses the advantages of online purchasing in addition to demonstrating how the system works. A thorough overview of system-related technologies and principles is given in the first section. The second part is the system requirement. In this part, it has depicted the equipment climate and the prerequisites of framework execution exhaustively. The third part, which includes both foreground and background functions, is about to implement these functions once these requirements are clear. With respect to data set, it likewise plays an especially job in framework plan, the section four is definite data set plan, containing connections between substances, characteristics of individual tables and connection of them. With an accentuation on programming execution, and a few classes are featured in this section. The creation of a shopping system must include system testing as a final crucial phase. To make sure the system functions properly, a wide range of test cases are arranged throughout the testing process.



II. LITERATURE SURVEY

The existing system is manual and paper-based work requiring students to queue for long periods to place orders and get the service.

Not Easy to Use: Due to the sluggish data retrieval from notebooks and inefficient data maintenance, the current system is not user-friendly.

Creating reports is difficult: The report is generated at the conclusion of the session because we need to perform additional calculations.

Manual Management: Since every calculation used to create the report is done by hand, there is a greater chance of making mistakes.

III. PROPOSED METHOD

Further develop adaptability of the application by expanding the quantity of things accessible for procurement. By integrating the drone service with the application, you can make use of drone delivery. As a social extension activity, provide the proposed Smart Online Shopping Application service to nearby shops to benefit rural vendors and encourage online shopping.

A. About Software

a) What is .Net?

Software that delivers services to users at any time, from any location, and on any device is known as the .NET strategy. It's a XML Web Administrations stage which permits us to assemble rich .NET applications, which permits clients to interface with the Web utilizing extensive variety of shrewd gadgets (tablet gadgets, pocket Pc's, web telephones and so forth), which permits to fabricate and incorporate Web Administrations and which accompanies numerous rich arrangements of apparatuses like Visual Studio to grow completely what's more, form applications.

b) .Net Framework

A "Software Platform" is NET FRAMEWORK.NET. It is a language-neutral platform that enables the development of rich.NET experiences and programmes that can work safely and easily within it. Instead of targeting a specific hardware/OS combination, developed applications will be deployed with.NET as their target and will execute wherever.NET is implemented. The.NET Framework is the collective name given to the parts of the.NET platform. The.NET Structure deals with all aspects of programme execution, such as allocating memory for information and instruction capacity, approving and rejecting application requests, monitoring the application's execution, and redistributing memory for resources that are not needed. The.NET Framework is made to work with different languages. Cross-language compatibility means that a C# (C- Sharp) DLL file can be referenced by a Visual Basic.NET application. There are two main parts to the.NET Framework:

- Common Language Runtime (CLR)
- Class Libraries

B. Common Language Runtime (CLR)

It is said that the "execution motor" of.NET is the CLR. It offers the programmes' operational environment. It is the responsibility of this CLR to manage how programmes operate and to offer basic services like code compilation, memory allocation, thread management, and garbage collection.

a) Working of the CLR

This file is not an executable one; rather, it contains a special type of code that the compiler produces. When the program is run, it is the CLR's responsibility to convert this Intermediate code into executable code, allowing it to run in any CLR-enabled environment. The.NET Framework achieves portability in this manner. Utilizing a JIT (Just in Time) compiler, this MSIL is transformed into executable code. The JIT compiler is turned on by the CLR when.NET programs are run. MSIL is converted into native code on demand by the JIT compiler as each component of the program is required. In spite of being compiled into MSIL, the programme functions as though it were native code as a result. As a result, the programme runs as quickly as it would if it were native code and benefits from MSIL's portability.

C. Class Libraries

The class library contains a lot of pre-written code that will be used by all VB.NET and Visual Studio.NET applications. In

VB.NET applications, the class library is where the majority of the code for all the components, including structures, controls, and the rest, is found.

a) .Net Framework and Languages

The .NET Framework is made to work with different languages. What does compatibility across languages mean? Regardless of the programming language in which they are written, .NET components can interact with one another. A VB.NET application may make use of a C# DLL file, a C# application may make use of a VC++ resource, and so forth.

Object-Oriented inheritance is also covered by this interoperability between languages. The usual language runtime makes this cross-language resemblance possible. There is no executable file in this one. All .NET executables are IL, so they can all be used without restriction. The Common Language Specification specifies the minimal requirements that implementers of the .NET language must follow. As a result, any code generated by .NET compilers can be used with the .NET Framework. By establishing the guidelines for data types, the Common Type System (CTS) makes ensuring that code is performed in a safe environment. As of every, data can be transferred between components without the need for time-consuming conversions.

b) Visual Basic .Net

Visual Basic .NET comes with an effective integrated development environment (IDE) and improved visual designers. Application development for wireless, Internet-enabled handheld devices is also supported.

c) Powerful Windows-Based Applications

Automatic control anchoring and docking, a potent new forms designer, and an in-place menu editor in Visual Basic .NET are all examples of effective Windows-based apps. The creation of more robust apps is made simpler and quicker by new productivity capabilities in Visual Basic .NET. With a much-shortened startup time and increased integrated development environment (IDE), Visual Basic .NET delivers faster, automated code formatting as we type, improved IntelliSense, an improved object explorer, and an XML designer.

d) Building Web-Based Applications

With Visual Fundamental .NET, we can create Web applications using the well-known "simplified" include and the common Web Structures Planner. We can respond to events with code by double-clicking. Additionally, we can make use of IntelliSense technology and label completion, or choose the WYSIWYG manager for visually creating intuitive Web applications.

e) Simplified Deployment

Applications can be developed more quickly, deployed, and maintained more effectively with Visual Basic .NET. "DLL Hell" is a thing of the past with Visual Basic .NET 2005. One next to the other forming allows different iterations of the same part to coexist safely on the same machine so that applications can use a specific form of the part. The simplicity of Page layout and support is combined with the effect of rich, responsive Windows-based programmes with XCOPY-arrangement and Web auto-download of Windows-based applications.

f) Powerful, Flexible, Simplified Data Access

ADO.NET's adaptability makes it possible to bind data to any database, as well as classes, collections, and arrays, and it gives data a true XML representation. For connected data binding scenarios, simple data access is made possible by seamless access to ADO.

g) Improved Coding

We can code more efficiently and quickly. A huge number of upgrades to the code supervisor, including upgraded IntelliSense, savvy posting of code for more prominent comprehensibility and a foundation compiler for constant notice of sentence structure mistakes changes into a rapid application improvement (RAD) coding machine.

h) Full Object-Oriented Constructs

Using all object-oriented constructs, we are able to create enterprise-class, reusable code. Encapsulation, polymorphism,

and full implementation inheritance are all features of the language. Structured exception handling eliminates spaghetti code and provides a global error handler.

Table 1: Product Sold Details

Column Name	Data Type
spid	int
uid	int
brand name	Varchar (50)
imgpath	Varchar (50)
cost	Decimal (18,2)
Cdate	datetime

D. Database Design

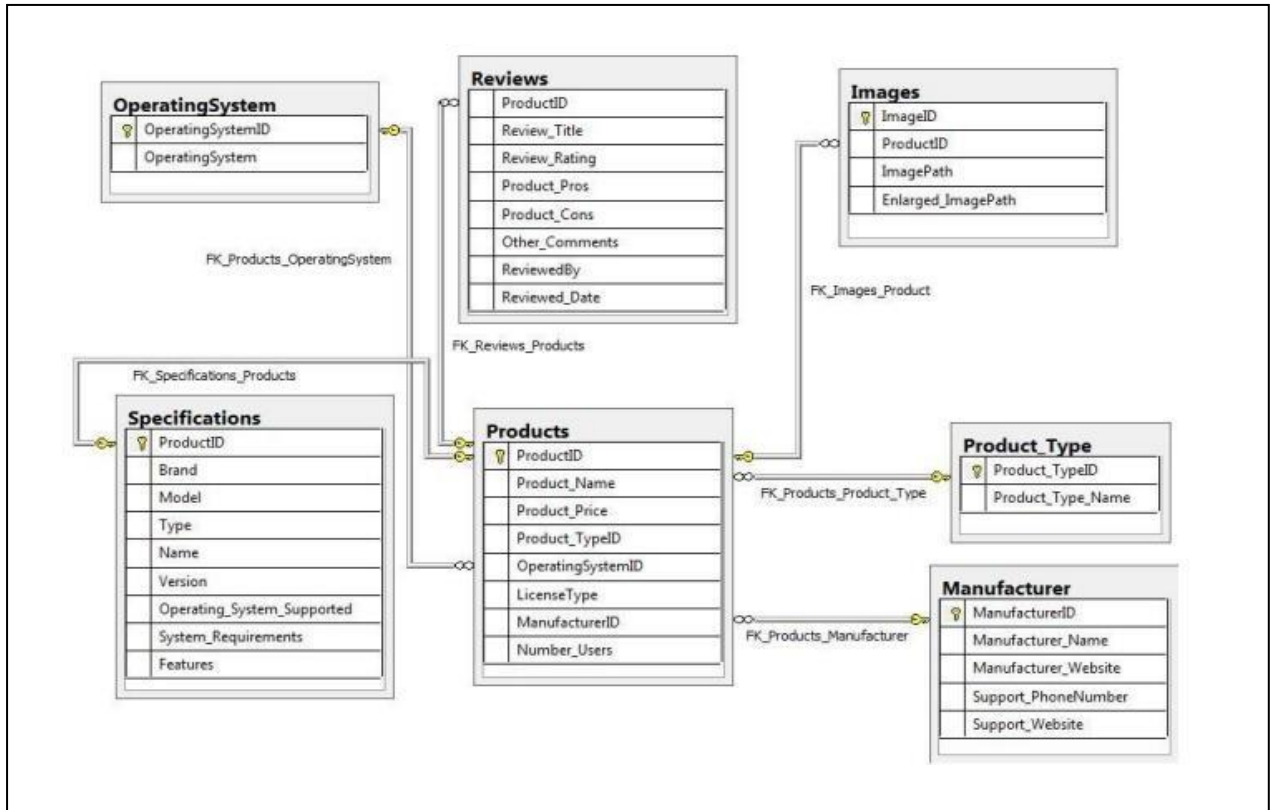


Figure 1: Architecture of Database Design

Table 2: Product

Column Name	Data Type
pid	int
Product name	Varchar (50)
Cdate	datetime

Table 3: Cart Details

Column Name	Data Type
Cartid	int
Uid	int

Pitemdid	int
Bname	Varchar (50)
Imgpath	Varchar (50)
Cost	Decimal (18,2)
qty	int
totcost	Decimal (18,2)
cdate	datetime

Figure 1 shows the information that was given to and received by "Online Shopping" in this context diagram. The application's received or generated data is depicted by the arrows. The shut boxes address the arrangement of sources and sinks of data. We can see that the application's graphical user interface is used by the user in the system.

D. Architecture

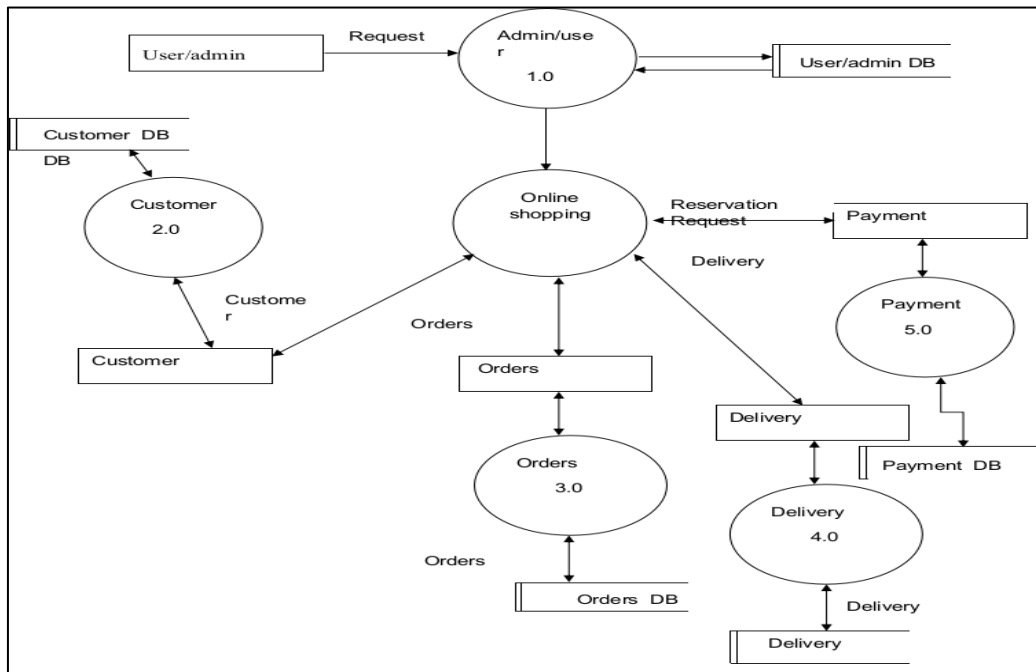


Figure 2: Architecture of Online Shopping

IV. METHODOLOGY

The "Implementation of Smart Online Shopping Application" for Idhaya Engineering College for Women - Students, Staff, Workers, and Visitors, the system will be a web-based application implemented on an ASP.Net (MVC) with JavaScript, CSS, and Structured Query Language (SQL) database. Secure login is essential in this project. Hence validation is implemented in this. Validation will ensure client and server validation. It works on both ends; first, it will work on client and server validation. Product management helps to manage how many products are bought and sold. Next, the money transaction is significant, so when one student sends money through online, our project is validating the person so that it goes through safely (end to end).

A. Modularity

a) Shop Products Module

This section includes the application's display of every product that is offered or that corresponds to the user's search query. The user can then arrange these items in many ways, including by the seller, type of goods, supported operating systems,

and price range.

b) Shopping Cart Module

The customer can add the product to the cart. The cost, quantity, informations about products are displayed by the cart. We can increase the quantity of the product by using cart.

c) Payment Module

Charge cards are the most usually involved installment strategy in Web based business. It should come as no surprise that credit cards are extremely popular for online purchases given that they are simple to use and generally safe. At the checkout, customers only need to enter the information about their credit card.

V. CONCLUSION

To grow the Entrepreneurship mindset of the students and to encourage the blooming Entrepreneurs. To save the student's time and help them buy things like Stationery items, Toilet things, Costumes, Snacks, Fresh Juice and Food items, etc. To place orders for their required items online and pay directly or pay online to purchase them. To reduce the time of standing in the queue to buy the goods. To bring innovation and give comfort to shoppers to visit the shopping sites in their free time and shop using their mobiles or Laptops. To make available Online Shopping Application 24 hours a day.

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