

A Thesis/Project/Dissertation Report

on

Second Hand Book Buying and Selling Portal

5 Submitted in partial fulfillment of the
requirement for the award of the degree of

Bachelor of Computer Applications



(Established under Galgotias University Uttar Pradesh Act No. 14 of 2011)

Under The Supervision of
Ms.Nishtha Rawat
Assistant Professor SCSE

Submitted By

Ramanand Tiwari
(19SCSE1040041)
Aditya
(19SCSE1040030)

11
SCHOOL OF COMPUTING SCIENCE AND ENGINEERING
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING /
5 **DEPARTMENT OF COMPUTERAPPLICATION**
GALGOTIAS UNIVERSITY, GREATER NOIDA,INDIA

MAY, 2022



**SCHOOL OF COMPUTING SCIENCE AND ENGINEERING
GALGOTIAS UNIVERSITY, GREATER NOIDA**

CANDIDATE'S DECLARATION

I/We hereby certify that the work which is being presented in the thesis/project/dissertation, entitled “**SECOND HAND BOOK BUYING AND SELLING PORTAL**” in partial fulfillment of the requirements for the award of the **BCA** submitted in the School of Computing Science and Engineering of Galgotias University, Greater Noida, is an original work carried out during the period of month, Year to Month and Year, under the supervision of **Ms.Nishtha Rawat** Assistant Professor SCSE.

Department of Computer Science and Engineering/Computer Application and Information and Science, of School of Computing Science and Engineering , Galgotias University, Greater Noida

The matter presented in the thesis/project/dissertation has not been submitted by me/us for the award of any other degree of this or any other places.

**Ramanand Tiwari (19SCSE1040041)
Aditya(19SCSE1040030)**

This is to certify that the above statement made by the candidates is correct to the best of my knowledge.

**Ms.Nishtha Rawat
Assistant Professor SCSE**

CERTIFICATE

The Final Thesis/Project/ Dissertation Viva Voce examination of **Ramanand Tiwari(19SCSE1040041) & Aditya(19SCSE1040030)** has been held on **14 May 2022** and his/her work is recommended for the award of BCA

5

Signature of Examiner(s)

Signature of Supervisor(s)

Signature of Project Coordinator

Signature of Dean

Date: MAY, 2022

Place: Greater Noida

3 Abstract

An online bookstore software projects that acts as a central database containing various books in stock along with their title, author and cost. This project is a website that acts as a central book store. This web project is developed using asp.net as the front end and sql as a back-end. The sql database stores various book related details. A user visiting the website can see a wide range of books arranged in respective categories.

The user may select desired book and view its price. The user may even search for specific books on the website. Once the user selects a book, he then has to fill in a form and the book is booked for the user. Online Book Purchase and Sales system is the open source web based project developed with PHP scripting language and open source MYSQL database server.

This web application provides huge database of different book collections over the internet where any person can search interested books and purchase it through different payment options where use n send a purchase order to merchant online. User can register himself in the index webpage through registration link as member or book provider both where he can add his personal books to our database for sell.

The optimization of this PHP project has done and works successfully without delay at the server. In order to make our web site more attractive and user friendly, we introduced some more features like -

- Provide total information about each and every book and its user ratings by user reviews,by author ratings.
- Provides search engine options based on book type, book Author. Book Name. Publisher
- Name & cost of the book

Table of Contents

Title	Page no.
Candidates Declaration	5
Certificate	3
Abstract	4
CHAPTER 1 – Introduction	
1.1 Introduction	6
1.2 Objective	7
1.3 Related Work	8
Data Flow Diagram	
1.4 Existing Website	9-10
1.5 How the visitor perceived to use the website	11
1.6 Models for design and Implementation of Software	12-14
CHAPTER 2 - Requirement Analysis	
2.1 Requirement Analysis	15
2.2 Design	16
2.3 Architecture of the Application	17-19
2.4 Proposed Working	20-21
2.5 Implementation	22-23
CHAPTER 3 – Conclusion /Future Work	
3.1 Conclusion	24
3.2 Future Work	25
Reference	26

CHAPTER 1 Introduction

1 The internet plays a very important role in today's society. Nearly all Windows based applications have a web based equivalent. For example Microsoft word has an online version of the same application call Office Web Apps and Adobe Photoshop has its own online version called Photoshop Express .The list is very long and it shows one trend that is happening this century on software. The internet is becoming more and more important in software development especially as its makes it possible for millions all over the world to access and use that application directly. The internet has produced and enhanced the growth of some popular brands like Google, Yahoo, Twitter and Facebook.

Sometimes people want services directly without necessarily going to a shopping malls or stores. They will want to have the same service by just accessing the internet and making their purchases. This reduces transportation cost and time can be spent instead on other important activities and its environmental friendly .The is an increase in online usage and consequently an increase in online e – commerce. There is available technology to build such sites and provide secure and reliable services to customers.

In this case, the online secondhand book shop is just one of them trying to use the power of internet and technology to develop a website that that can make book recycling and sales easier. Students need many different types of literature in their studies. As they go through the educational process they move gradually to the next level and other students move to that level they were previously in .It can be described as a circular pattern and text books used in this cycle can easily be accessible to another student in that cycle using the internet as the main meeting place.

They are not only students that need books. Everybody need books or has a book or wants to buy a book. Hence a website of this nature that focuses on books can come a long way to make accessibility to secondhand books just a click away at a good and reasonable price

Objectives

⁸ The major goal for Online Book Buying and Selling Portal is that in future people, especially students should have an easy way to buy and sell books online. The users will be able to carry out all these in a secured and managed environment. The secondhand-eBook shop shall be easy to navigate and user friendly and easy to find books in various categories. It shall be easy to administer and handling of orders and sales processes shall be easy to handle by the administrator.

⁶ The Main Objective of Online Book Store Are As Follows:

- Provides the searching facilities based on various factors. Such as Books, Payment, Delivery, Bills
- The transactions are executed in off-line mode, hence on-line data for Books, Customer capture and modification is not possible.
- It tracks all the information of Customer, Stock, Delivery Manage the information of Customer.
- Shows the information and description of the Books, Payment
- All the fields such as Books, Payment, Bills are validated and does not take invalid values
- ⁶ • You can easily export PDF for the Books, Stock Delivery
- Application also provides excel export for Customer. Payment Bin
- You can also export the report into csv format for Books, Customer Bills To increase efficiency of managing the Books, Customer
- It deals with monitoring the information and transactions of Delivery
- Manage the information of Books
- Editing, adding and updating of Records is proved which results in proper resource management of Books data.
- Manage the information of Delivery.

Related Work

Earlier there are some book store who use to sell and buy old books but they were very less in numbers and it was also very difficult for the people to find the shop and sell their books or buy old books.

But here comes our system which has following advantages:-

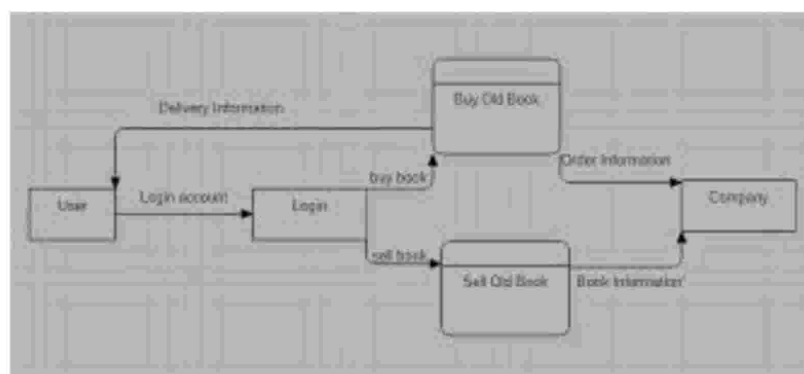
- 1-People can sell their book very easily they have to just upload books photos and details on our website.
- 2-People can buy books easily they have to just search and buy the book they want.
- 3-People do not have to search for the second hand book store they have to just go to our site and can buy and sell their books.

Purpose

The purpose of this project is to create a communication and user- friendly web portal for selling and buying second hand books online.

With the help of our project we can also help those shop keepers how has shop for buying and selling second hand books but they are at so much less number than only less people know about this shops and they do not buy anything from that shop but with the help of our site the people will come to know about that site and they can go to their shop and purchase the book or sell the book from that shop in case we do not have delivery option in that area.

Data Flow Diagram



Existing Website

1

They are many websites out there on the web that provide services on second hand books .My goal is to provide a better, faster and user friendly website with services that other websites might be lacking or not well developed. The secondhand e-book website will be only focus on used books. Some available websites and their descriptions can be seen below.

1. Bokexpressen.se

- Sells secondhand books .It has no direct web shop and a payment service .The secondhand bookshop will provide this. There is a buyer to seller contact here .On the secondhand book shop there will be no direct contact between the seller and the buyer until a sale process has gone through. Hence assuring the buyer that if they pay for a book they are sure to get it else the Manager of the website can refund them directly.
- Has no online store
- Membership required to load books.

2. Bokborsen.se

- Almost the same concept like the current project but sells music CDs, videos and films. Has a web based shop and membership .They have no single based focus compared to the secondhand bookshop that will focus on book sales and hence provide better information and details on books.
- Has an online store
- Registration required

3. Kurslitt.se

- Sells secondhand books. It falls under the category of bokexpressen.se. The analyses done there hold the same for kurslitt.se.
- No online store but membership required to load books to sale .

4. **Tradera.com**

- Sales everything that is second hand including books .Has an e-web shop with membership. This is an auction site. They sale everything through auction .For students who want to buy books it will be preferable to go to the second hand book shop and buy the book you want and just pay for it than to be waiting for an auction to complete on an book and following the process the whole time. The time can be used to do something useful. Hence this current project provides a 9 faster, secured and guarantees service especially for students who want textbooks and have the money to buy them directly.
- Has an online store
- Membership is required

5. **Bokfynd.nu**

- More of a price comparing service for books. Hence there is nothing to compare with the current project apart from that it has something to do with getting books at an affordable price .It can help the student to get cheap books .This kind of service can in future be incorporated to the secondhand bookshop website.
- No online store and membership is required.

6. **Ebay.com**

- Sell secondhand items including books. It's a world renowned website auction portal .The comments on trader.com hold the same here.
- Has an online store and membership management.

How the Visitor is perceived to use the website

For the website to fulfill its functionality three users are required for a successful purchase process to take place.

1. John (user one) creates an account because he wants to buy a book.
2. Mary(user two) creates an account because she wants to sell a book
3. Mary uploads a books
4. The book appears at the websites home page directly based on its category.
5. John fills his profile so that he can easily buy books.
6. John has seen the book he wanted to buy. The book was uploaded by Mary (user two). He clicks on the book and goes through the checkout process. He buys the book.
7. Mary gets a mail that her book has been bought. She sends the book to John's address.
8. John tells the administrator of the website that he has gotten the book. The administrator credits Mary's account.
9. The Administrator (power user three) get a small percentage of the amount John paid
10. John can give a feedback about the book he bought from Mary.

1 Models for design and implementation of software:

Considering the fact that this project involves design and implementation of a software system regardless that it is web-based, it will be important to mention and consider some models used in software development and deployment.

Somerville (2000.Pn:8) defines a software process as activities that lead to the production of a software product. And a software model is a simplified description of the software process and it is presented in a particular perspective. He further outlines different types of software process model. Some of the models are

- Workflow model representing sequence of activities
- The data-flow model or activity model represents process as a set of activities.
- The role/action model represents roles of people involve in the system.

He further identifies some general models of software development. There are namely

- The Waterfall approach: It represents activities in requirements, specifications, design, implementation and testing. All these as separate processes
- Evolutionary development: It involves a rapid development of the specifications and then refined later for the customer.
- Formal transformation: This approach is based on setting and producing a mathematical specification for the system to meet.
- System assembly from reusable components: This approach assumes that part of the system already exists. This model is focused on integration.

After reading though all these models. The Waterfall model fits the development of this website. It's had very clear iterations and considering the fact that I am working alone I can focus on each part of the model during development and come back to it if need be .The project can easily be broken down into different parts based on this model.

Standish (2000) writes on the *Code and Fix Model* was used in early days of software development but because of its many flaws like now always matching the customer needs. This lead to the

development of a waterfall model that clearly stated out what the system required and what the customer wanted and how the development and implementation will take place

All documentation was part of this process and waterfall model lead to easy legal binding if needed.

The waterfall model for software development

This is the model that will be used to develop the E-secondhand bookshop. However feedback loops will be allowed during the whole software development process. The model chosen for this project has to favor a single developer for a project. Considering the fact that I am the only one who is going to implement this project I find this model suitable for me to follow.

The waterfall model recommends software development to go sequentially and follow certain rules and stages. It requires that software development follows the following stages

1. analyses of the problem is made and requirements to be met are proposed
2. The specifications of the project are put in place after the problem has been analyzed and the requirements to be met are made clear.
3. A design for the software system is made
4. After the design is completed the process of implementation and debugging starts
5. The program is tested and integration of the system is made
6. The developed software is in its final stage and operation and maintenance can then be made continuously

This process has been illustrated below on Fig 4 showing top-down development. The main stage descriptions are in the boxes. The model looks like a waterfall. For this model to work efficiently feedback loops are added to create a coordination of the whole process development.

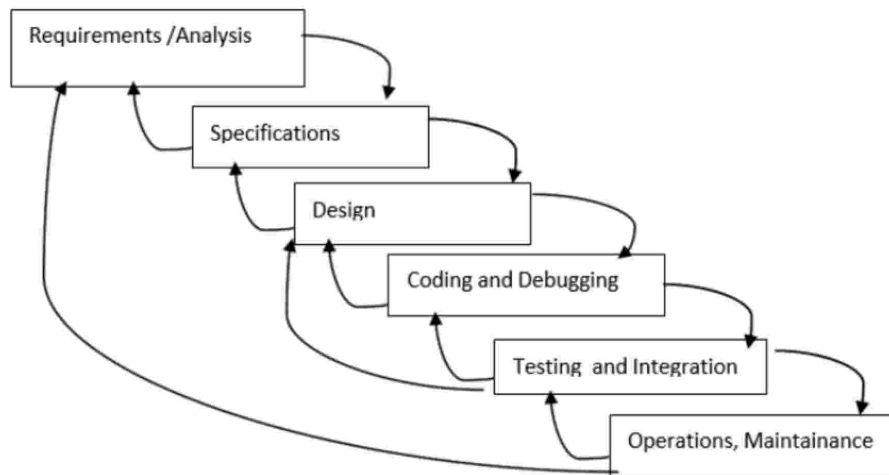


Figure : *The waterfall Model for software development with feedback loops.*

1 After adding feedback loops its clear how the process are inter linked and depend on each other. Each level can get and check back on the previous stage of development to sort out a problem. The waterfall model with feedback loops favors the software development in a more realistic way. It leads to a greater probability to meet the requirements of the customer.

On the other hand this model also has its flaws .Its time consuming because each stage has to be clearlydefined before the next stage starts. There is also a waste of man power especially when testing is going on the application.

CHAPTER 2 -Requirement /Analysis

1 The website should be able to load and function properly on all major web browsers .Easy functionality for the user and the administrator. Easy user interface and fast data uploads and reloads into the website .The process should be secure especially when it comes in handling financial transactions money .A foreign provider can be used .This process has already been carried out and the customer and the developer can now write down the list of specifications and goals the website will achieve. The specifications should be able to fulfill the purpose and goals of this project.

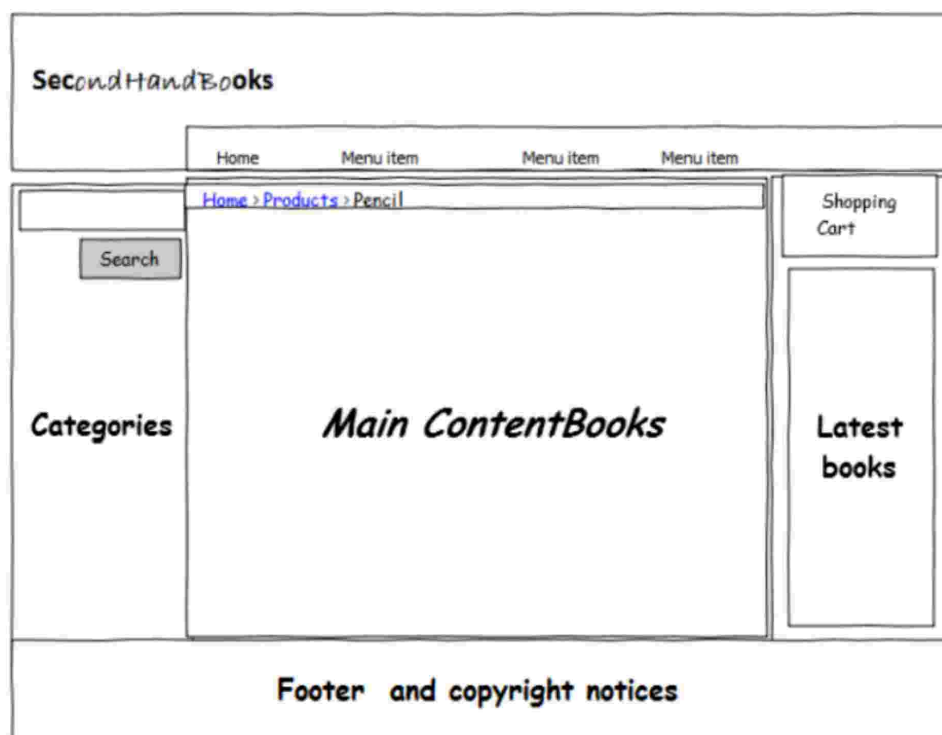
Specifications

- Complete online shopping process should be developed
- Anybody should be able to browse books on sale
- Anonymous and registered user can buy books.
- The website should allows visitors to create ,manage and log into their accounts
- Members can sell books they uploaded. They can delete a books if there s no current buy process going on that book.
- Members can Create and update their profiles
- Comments on buyers and seller books after a sale process.
- History of transactions of a member
- Administrator has a simple order management system
- Capability of handling financial transactions(Use another Provider API e.g. PayPal)
- Mailing capabilities after selling or buying process
- Search for books on the website
- A visitor should rapidly find a book he or she is looking for.
- Latest books are shown on the main page
- Handle errors in a proper way

Design

The site design To begin developing a website it is very important to have a mockup of the site .This will be done using Paint or Adobe image maker or any available online graphic tool. The mock-up image gives an overall picture of the look of website portraying its functionality, key parts and key functions.

Figure of site mock up:

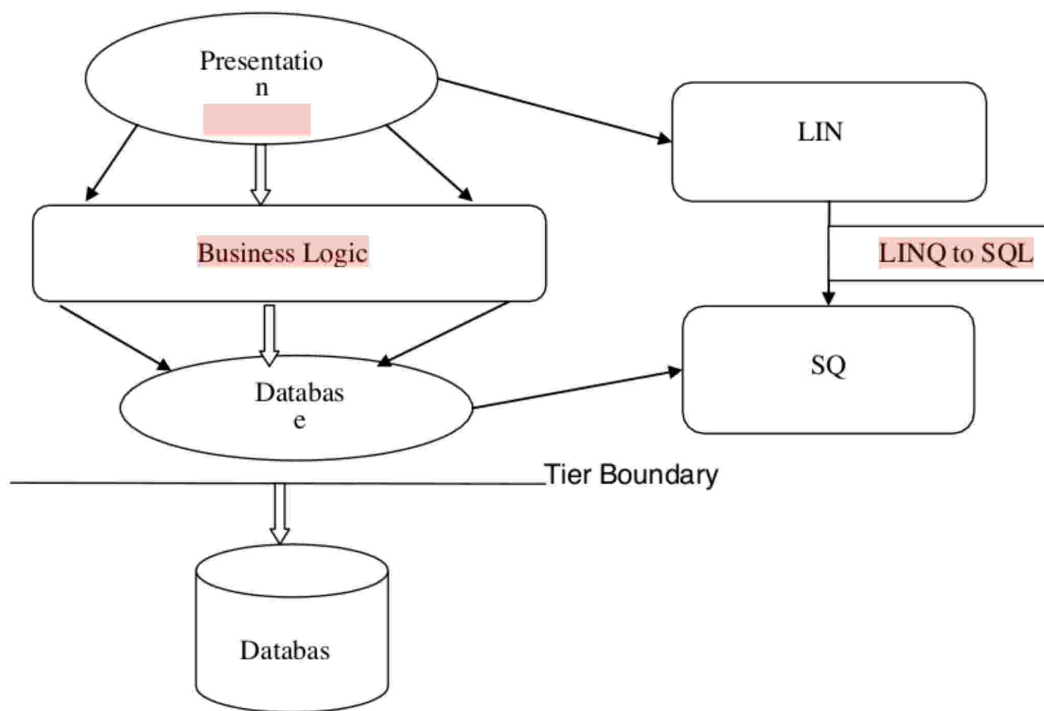


Mock Up Figure for site Second hand book buying and

1 After the mockup is accepted and considered optimal and user friendly the layout and design with HTML and CSS will be made based on this. Graphics will be added to add aesthetics on the website.

Architecture of the Application

The next phase of design will be planning the architecture of the application. There will be in some cases a separation of the user interface and data. The business layer will be totally independent and not embedded in the views of the website. Data will be stored in an SQL database and LINQ (language integrated query) to SQL classes will be used in some cases to query the database and code behind for server side scripting will be in C#. The other business objects will have their own layer. Views will all be from ASP.net view files. The architecture of the application is shown below in figure:



1
Figure 6: Two tier distributed architecture

The Shopping Module

Specifications

1. Shopping cart that is visible at all times and maintains its state

2. Delete, update from shopping cart
3. A check out process that is smooth
4. A page to show the items shopped made by the user showing shipping and location details
5. Payment service that people can trust to leave their credit card numbers.
6. You do not have to member to buy books. Hence anonymous user can buy books

Design of the shopping module

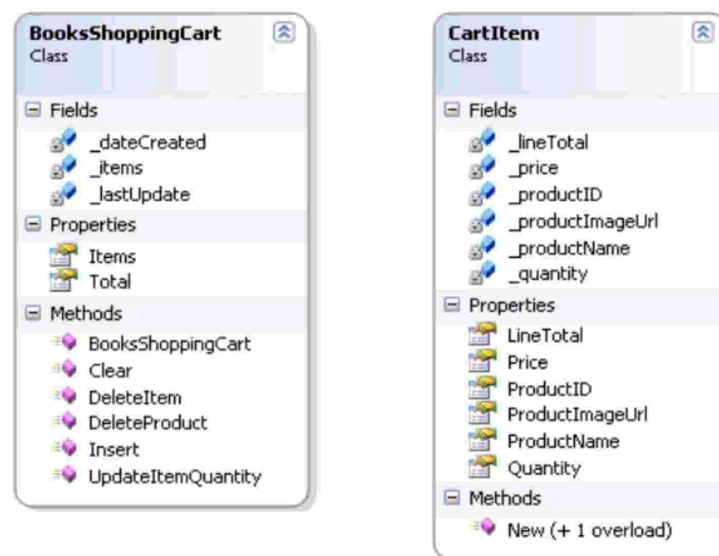


Figure : Class diagrams to handle the shopping process

There are two classes to handle the actual shopping process and the items to be bought. A book is represented by a Cart Item class .It has all the properties a book object needs for information storage. The Books Shopping Cart class manages the books(Cart Item) in the cart in this case the books added into the shopping cart. It has all the methods to handle shopping basket. This has been represented bellow

To store information about books and manage book orders I choose the MSSQL database .It is secured,easy to use and well integrated into the .Net framework. Using the ADO.NET and Linq

utilities queries can easily be made on the database. Five tables will be created to handle this module . Each table will store relevant data that will be needed to fulfill the objectives of the website. These tables are the Product, ProductCategory, Order, Orderlines and Comment_tb tables. The contents and relationships between them can be seen below on figure.

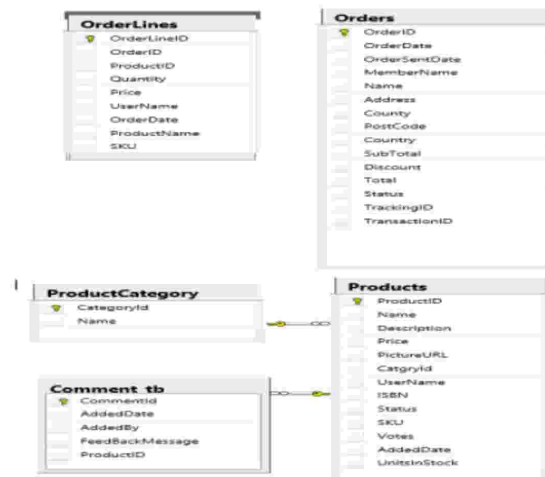


Figure: All Database table and Relation

- 1. The Product table that stores all information about books. The product table has the Category Id as the foreign key because each book should have one category in this case. It is a one to many relationship.
- The Category table that hold the different categories of book.
- The Order table stores all orders and buyers address and finally
- The OrderLines table that represents the details of book that has been bought. It has a reference to the order table. It has a foreign key Order Id so that each book can be linked to a specific order that was made.
- The Comments table stores feedback comments from the buyer. It has the Product ID as a foreign key because comments can be written about a product. There is also a one to many relationship between the product table and the comment table.

PROPOSED WORKING

In this project, the user needs to register with the given user id and password. The user then logs in and search for the book which is necessity for the customer. Through this the user can buy or sell and can even add the product which they want to sell. This is much valuable and constructive than library and as communication is possible between the user and the sales person, the customer be acquainted with about the condition of the given product.

WORKING OF PROPOSED MODEL

The proposed model or solution is based on a website which is used to fill the gap of communication with juniors and seniors by giving them a portal to buy/sell their used books which will not be further required by them. The student has to first register himself in order to use the website. This will make an account of the registered student who will have to login whenever he/she visits the website. After successful registration, the student will be able to upload the book which they intend to sell or keep for rent. The student has to enter the details such as: name, price, quantity, category and description can be used to indicate the current condition of the book and also upload the photo of the book. Once the student has uploaded the book, the book will be available in the buy section for all the other users and they can filter the books based on their price and name. The student who wants to buy a particular book will have to chat with the owner of that book. The chat platform will help the buyer to negotiate the price and will help them to locate the owner.

JAVA

Java is a programming language and computing platform first released by Sun Microsystems in 1995. It has evolved from humble beginnings to power a large share of today's digital world, by providing the reliable platform upon which many services and applications are built. New, innovative products and digital services designed for the future continue to rely on Java, as well.

There are many applications and even some websites that will not function unless you have Java installed. Java.com, this website, is intended for consumers who require Java for their

desktop applications – specifically applications targeting Java 8. Developers as well as users that would like to learn Java programming should visit the dev.java website instead and business users should visit oracle.com/java for more information.

JAVASCRIPT

JavaScript (JS) is a² insubstantial, interpreted or Just in Time compiled programming language with better functions and new sort of methods. Significantly as the scripting language for Web pages, many non-browser environments also use it, such as node.js and ApacheCouchDB. JS is a prototype-based, multi-paradigm, dynamic scripting language, supporting object-oriented, imperative, and declarative (e.g. functional programming) styles.

COMPONENTS REQUIRED

- PHP
- JavaScript
- HTML
- CSS
- Personal Computer

Implementation

Implementation is the stage in the project where the theoretical design is turned into a working system. It involves careful planning, investigation of the current system and its constraints on implementation, design of methods to achieve the changeover, an evaluation of change over methods. Apart from planning major task of preparing the implementation are education and training of users. The implementation process begins with preparing a plan for the implementation of the system. According to this plan, the activities are to be carried out, discussions made regarding the equipment and resources and the additional equipment has to be acquired to implement the new system.

In a network backup system no additional resources are require. The most critical stage in a achieving a successful new system is giving the users the confidence that the new system will work and be effective. The system can be implemented only after thorough testing is done and is found to be working according to specification. This method also offers the greatest security since the old system can take over if the errors are found or there is an inability to carry out a certain transaction while using the new system.

The purpose of this project is to create a communication and user- friendly web portal for selling and buying second hand books online. There are two types of user who uses this system:-

1-Seller and Buyers:-

9 This user will register to be a member to use the online system of this online buying and selling second hand books system. This online buying and selling system is divided into two type of customer; it is buyers who buy the book from the site. To buy the book customer has to first create id on our site after which he can search and can order any 7 book he want and for the seller he user to create his id and then has to upload the picture of his books and he has to enter all the details after which he has to set the appropriate price for his book.

2-Company:-

9 Company manager is the person who will manage the entire system. He is allowed to reassign the cost of the according to his choice, he can edit the book information such as its price, current name etc. This type of user will also do maintenance and control the application of this system. Its manager responsibility to 9 takes a responsibility to register new customer, register new seller, register new books into database.

A manager can edit/create some or whole part of the record on daily basis.

CHAPTER 3 ¹ Conclusion and future work

Conclusion

Our goal was to create an application where people will upload books and be able to sell them online. The current application has fulfilled these goals. I followed the specifications strictly but enhanced some of the features when there was need for it to be done. With the goals achieved the basis of the application and this project has been achieved. Building this web application has been challenging and enriching because throughout the project I learnt a lot about .Net and understand what it takes to build an E-commerce store. There have been challenges especially when it came to the payment gateway and making sure that the application responses in a predictable. Careful planning made my job easier because I had to carefully think about the type of architecture, the design, the database types to use and what type of business objects to create. When this was done I proceeded with implementation. Choosing the .Net framework for this project made the project to be realizable in that amount of time because the framework handled most of the heavy burden in underlying connections, security, portability and functionality. I could focus on the creation of the application and hence in this amount of time could develop a complete online shopping cart and membership site. As I came to the end of the project I realized that there are many enhancements that can be made on the application. Some of these ideas came from those who tested the application and some of them from me. I decided to follow the specification because there were realistic to achieve in this given amount of time. Any other enhancements to the application can be done in future development of the application.

Future work

Here is what can be added in the future on this website to increase its usability, user experience and portability of the website. There is a lot to be done hence this application can be considered as a starting point for something big to come. It will need more time and resources for all these to be done but it is still very realistic and possible to achieve.

- Add a screening mechanism to the website when uploading books. Control the prices, images and book names before loading it to the main page of the website
- Add more payment gateways
- Add multi categories for books
- Adding a better order management portal
- Addition of themes
- Possibility to save orders and confirming it later
- Reservation of books
- Add forums and videos
- Access the applications on a mobile phone and reserve books
- Add E-Book formats like PDF and others in the selling portal

Reference

1. Daniel S , (2008), Illustrated C# 2008, Apress
2. Hanspeter M. ,Wolfgang B, Dietrich B., Albrecht W. (2003), .NET Application Development with C#, ADO.NET, ASP.NET and Web Services, Addison Wesley
3. Ian S. (2000), Software Engineering, Addison Wesley;
4. Matthew R. (2000) Beginning E - Commerce With Visual Basic, Asp, Sql Server 7.0 and MTS ,Wrox
5. Marco B. (2006) ASP.NET 2.0 Website Programming: Problem - Design – Solution, Wrox
6. Mark N. and Steve W.(2001) (eBusiness Essentials) Technology and network requirements for mobile and online markets , John Wiley and Sons.
7. Thomas A. S.,(1994), Data Structures, Algorithms and Software Principles in C , Addison Wesley
8. N.Bandyo-padyay(2002) E-commerce Context, Concepts and Consequences, Mcgraw
9. Vanessa D.(2001) , Designing Easy- to Use websites , Addison-Wesley
10. <http://msdn.microsoft.com/en-us/library/bb355989.aspx>.
11. <http://nevonprojects.com/online-book-resellingportal/>
12. <https://www.quora.com/What-is-size-of-secondhand-books-market-in-India>

BCA3021 Project Report.pdf

ORIGINALITY REPORT

87%

SIMILARITY INDEX

PRIMARY SOURCES

1	docplayer.net Internet	2939 words — 57%
2	www.irjet.net Internet	340 words — 7%
3	www.slideshare.net Internet	281 words — 5%
4	pdfcoffee.com Internet	196 words — 4%
5	www.coursehero.com Internet	187 words — 4%
6	www.freeprojectz.com Internet	156 words — 3%
7	ijarcce.com Internet	124 words — 2%
8	jpinfotech.org Internet	106 words — 2%
9	sites.google.com Internet	89 words — 2%
10	mdh.diva-portal.org Internet	

21 words — < 1%

11 www.pmu.edu
Internet

14 words — < 1%

EXCLUDE QUOTES OFF

EXCLUDE BIBLIOGRAPHY ON

EXCLUDE SOURCES OFF

EXCLUDE MATCHES < 10 WORDS