**D.G. RUPAREL COLLEGE**

**Matunga (W) Mumbai-400012**

**A PROJECT REPORT ON**

**ONLINE AUTOMOBILE SPARE PARTS SHOPPING SYSTEM**

**For**

**JAYKANT AUTOMOBILES SPARE PARTS**

**Shop no. 1, Vakil Building, Avantikabai Gokhale Street, Opera House, Mumbai-400004**

**SUBMITTED TO**

**[UNIVERSITY OF MUMBAI]**

**BY**

**Miss. HRITIKA HARMALKAR**

**T.Y.B.SC (COMPUTER SCIENCE)**

**ACADEMIC YEAR 2019-2020**

**Acknowledgement**

In the accomplishment of this project successfully, many people have best owned upon me their blessings and the heart pledged support, this time I am utilizing to thank all the people who have been concerned with this project.

Primarily I would Thank God almighty for being able to complete this project with success. Then I would like to thank my project guide Ms. Pooja Tambe, whose valuable guidance has helped me create this project and make it full proof success, her suggestions and instructions has served as the major contributor towards the completion of the project.

I would like to express thanks to Jaykant Automobiles, Opera House, Mumbai for their extensive uphold and cooperation all the way through the development and achievement of the project by providing me the truthful and precise information.

Last but not the least I would also like to thank my parents and friends who have helped me with their valuable suggestion.

**Index**

|  |  |  |
| --- | --- | --- |
| **SR.NO** | **INDEX TOPIC** | **PAGE** |
|  |  |  |
| **1.** | **Preliminary Investigation** |  |
| (i) | Organization Overview |  |
| (ii) | Description of System |  |
| (iii) | Limitations of Present System |  |
| (iv) | Proposed system and its advantages |  |
| (v) | Feasibility Study |  |
| (vi) | Stakeholders |  |
| (vii) | Gantt Chart |  |
|  |  |  |
| **2.** | **System Analysis** |  |
| (i) | Fact Finding Techniques |  |
| (ii) | Event Table |  |
| (iii) | Use Case Diagram |  |
| (iv) | Activity Diagram |  |
| (v) | Class Diagram |  |
| (vi) | Object Diagram |  |
| (vii) | Sequence Diagram |  |
| (viii) | State Chart Diagram |  |
|  |  |  |
| **3.** | **System Design** |  |
| (i) | Converting ERD to Tables |  |
| (ii) | Component Diagram |  |
| (iii) | Deployment Diagram |  |
|  |  |  |
| **4.** | **System Coding** |  |
| (i) | Site Map |  |
| (ii) | List of Tables with Attributes and Constraints |  |
| (iii) | Program Description with Naming Conventions |  |
| (iv) | Screen Layouts |  |
| (v) | Validation |  |
|  |  |  |
| **5.** | **Future Enhancement** |  |
|  |  |  |
| **6.** | **References and Bibliography** |  |
|  |  |  |

**Preliminary Investigation**

**Organization overview**

**Name:** Jaykant Automobile

**Owner:** Mr. Mahesh Ashar

**Address:** Shop no. 1, Vakil Building, Avantikabai Gokhale Street, Opera House, Mumbai-400004

**Contact:** 022-23821311 , 9821313136

**Services:** Automobile spare parts dealer. Distributor of Syndicate wipers, Dachi Halogen bulbs and Union bulbs.

**Current working of the system**

The present system of “Jaykant Automobile” is manual. Customer reaches their outlet in the market. The person in-charge at the counter takes the order of the customer by manual system, i.e. using paper. The ordered items (automobile spare parts) are searched and collected from the inventory (store room) and then are given to the customer. The total price of the items is calculated and final bill is generated. The bill is paid by the customer in cash or through cheque.

The customers also inquire on the telephone to ask if a particular item is available or not. The customer can also place an order on the call, email and WhatsApp. This order is noted manually by the on-call operator. The report of the order is saved by operator in the records. “Jaykant Automobile” mostly deal with the wholesalers. The wholesalers can pay the bill in cheque and also on credit basis. For marketing, the owner himself goes on tour in Maharashtra, Gujrat, Madhya Pradesh and Andhra Pradesh.

**Limitations of the current system**

* The owner himself needs to visit places for marketing his products. Hence this system requires a lot of time and money to reach its potential customers.
* By not having an online presence, the business is automatically losing the opportunity to get in touch with the new customers.
* If a customer wants to buy something, she/he has to physically go to the shop, if they don't have the contact info.
* Customers cannot view all the available options of products all at once.
* No further modifications to the system is possible.
* Speed of transaction is slower in the current system.

**Proposed system**

**Working:**

* The proposed system will be online system, i.e a website.
* The Home page will welcome the user.
* The user will be able to login through the Login page. If the user does not have an account, she/he can click on the link to go to Create New Account page.
* On the Search page, the user can select the car make (for example Honda, Maruti, etc) from a dropdown list and search for the products related to it.
* The user can click on “Add to Cart” option to add the product to the Cart. User will be able to edit the Cart.
* After the user places the final order, a bill will be generated. This system will have the “Cash on Delivery” service.
* On the Feedback page the user can give feedback about the service provided by the shop or the products.
* The user can get more information about the products on the About page.
* On the Contacts page the user can get the contact info and the address of the shop.

**Advantages of Proposed System:**

* As this system is online, it saves time and efforts of the customer as well as the owner.
* New customers are likely to visit the website to learn about the shop and the available products.
* This system has been developed to be simple and user-friendly.
* It is upgradable. Hence further enhancement to the system is possible.
* The system maintains speed and accuracy.

**Software requirements**

**Back End:**

MySQL Server 8.0

**Front End:**

Microsoft Visual Studio 2015

**Others:**

DotNet Framework 3.5/Higher

**Feasibility Study**

**1) Organizational Feasibility** :

This project provides considerable assistance and convenience to all the users and it provides more accuracy for the functioning.

**2) Technical Feasibility :**

The project was technically very feasible since it encompasses a vast variety of already proven technologies. The programming languages used in the project is ASP.NET with VB and it has its own features set that proved useful in the completion of the project. The assessment is based on an outline design of system requirements in terms of input, process, output, field program and procedures. This can be quantified in terms of volumes of data, trends, frequency of updating etc. In order to estimate, whether the new system will perform adequately or not. Technological feasibility is carried out to determine whether the organization has compatibility in terms of software, hardware, personal and expertise, to handle the completion of project.

**3) Operational Feasibility :**

The information that was necessary to build this project was provided by the owner of the Shop himself and also the staff working in there. They provided detail information and categorization of all the automobile spare parts.

**4) Economic Feasibility:**

The cost of hardware and software is feasible as it requires investment at the start of the system of computer, printer etc. But the Restaurant for which I am developing this project does not possess any system So, at the start they need to invest for the working of this system. The current manual system requires some investment. So the software system which I am developing is feasible in economic aspects.

**Stakeholders**

Stakeholders are the people who have an interest in the successful implementation of system. We categorize them into following groups:

1) Technical staff: It includes those users who must ensure that the system operates in computing environment of organization. This particular Shop for which this software is designed is a small scale organization. It is owned by Mr. Mahesh Ashar.

2) User: Users of those who actually use the system on frequent basis and those are the end users of the system. These are the people who need current information from the system and uses the system for online transactions.

**Event Table**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Event** | **Trigger** | **Source** | **Activity** | **Response** | **Destination** |
| Customer Login | Login | Customer | Checking Username and Password | Login successful | User |
| Customer  Navigates | Arrival of  Customer | Customer | Navigates  Through the  Details | Navigation  Done | User |
| Registration of Customer | Details taken | Customer | Adding new Customer | New Customer Added | User |
| Select Category(car make, model, part) | Category Selected | Customer | Selecting desired item | Adding to cart | User |
| Modify Cart | Delete existing product from cart | Customer | Changing  existing  Products | Cart Modified | User |
| Checkout and verify details | Finish product selection | Customer | Ordering products | Bill generated | User |
| Add Review | New Review | Customer | Adding new Review | New Review added | User |
| Admin Login | Login | Admin | Checking Id and Password | Login Successful | Admin |
| Add Products | New Product | Admin | Adding new Product | New Product added | Admin |
| Delete Products | Delete Product | Admin | Deleting an existing Product | Product deleted | Admin |
| Modify Products Price | Change Existing Product price | Admin | Change Existing Product price | Product price modified | Admin |
| Delete Reviews | Delete Reviews | Admin | Deleting a Review | Review deleted | Admin |

**List of Tables with Attributes and Constraints**

TABLE NAME: customerdata

DATABASE NAME: jaykantdb

|  |  |  |  |
| --- | --- | --- | --- |
| **Key** | **Field name** | **Datatype** | **Allow Nulls** |
| Primary Key | cust\_id | int | No |
|  | cust\_name | varchar | No |
|  | cust\_contact | varchar | No |
|  | cust\_addr | varchar | No |
|  | cust\_email | varchar | No |
|  | c\_uname | varchar | No |
|  | c\_passwd | varchar | No |

TABLE NAME: products

DATABASE NAME: jaykantdb

|  |  |  |  |
| --- | --- | --- | --- |
| **Key** | **Field name** | **Datatype** | **Allow Nulls** |
| Primary Key | pid | int | No |
|  | p\_cmake | varchar | No |
|  | p\_cmodel | varchar | No |
|  | sparepart | varchar | No |
|  | p\_description | varchar | Yes |
|  | price | int | No |
|  | quantity | int | No |
|  | p\_imgurl | varchar | Yes |

TABLE NAME: carmake

DATABASE NAME: jaykantdb

|  |  |  |  |
| --- | --- | --- | --- |
| **Key** | **Field name** | **Datatype** | **Allow Nulls** |
| Primary Key | carmake\_id | int | No |
|  | carmake\_name | varchar | No |

TABLE NAME: carmodel

DATABASE NAME: jaykantdb

|  |  |  |  |
| --- | --- | --- | --- |
| **Key** | **Field name** | **Datatype** | **Allow Nulls** |
| Primary Key | carmodel\_id | int | No |
|  | carmodel\_name | varchar | No |
| Foreign Key | fcarmake\_id | int | Yes |

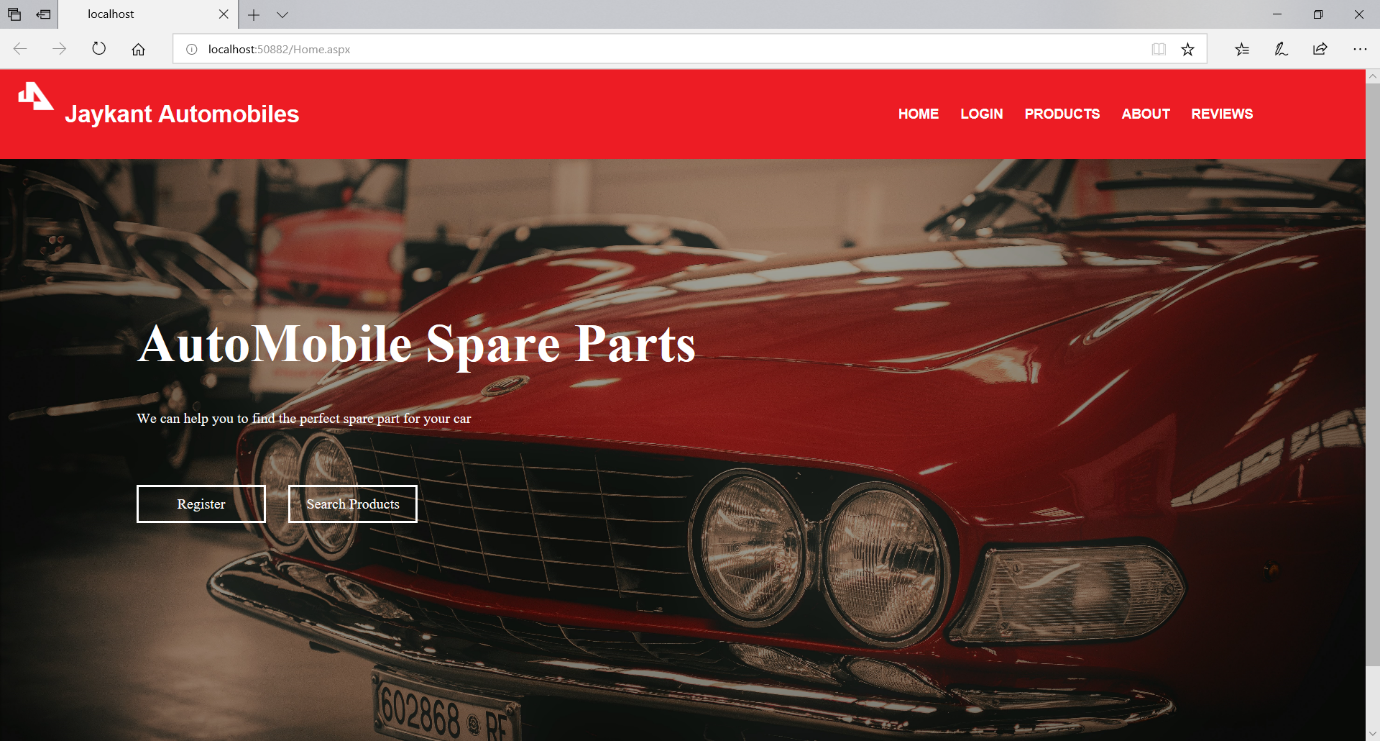
TABLE NAME: orderdetails

DATABASE NAME: jaykantdb

|  |  |  |  |
| --- | --- | --- | --- |
| **Key** | **Field name** | **Datatype** | **Allow Nulls** |
| Primary Key | odid | int | No |
|  | orderid | varchar | No |
|  | sno | int | Yes |
|  | oproductid | int | Yes |
|  | omake | varchar | Yes |
|  | omodel | varchar | Yes |
|  | oproductname | varchar | Yes |
|  | oprice | varchar | Yes |
|  | oquantity | varchar | Yes |
|  | dateoforder | varchar | Yes |
|  | o\_uname | varchar | Yes |

**Screen Layouts**

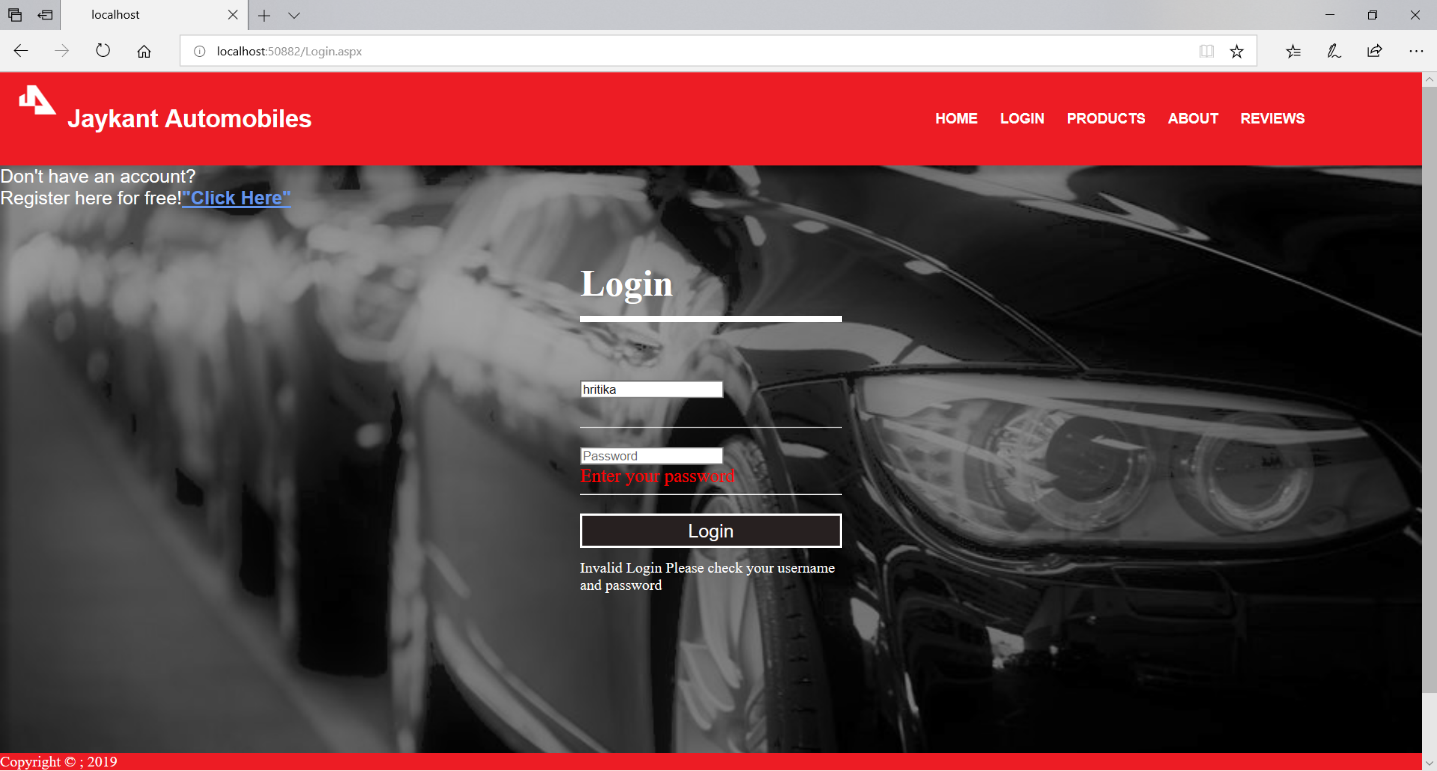
Home page



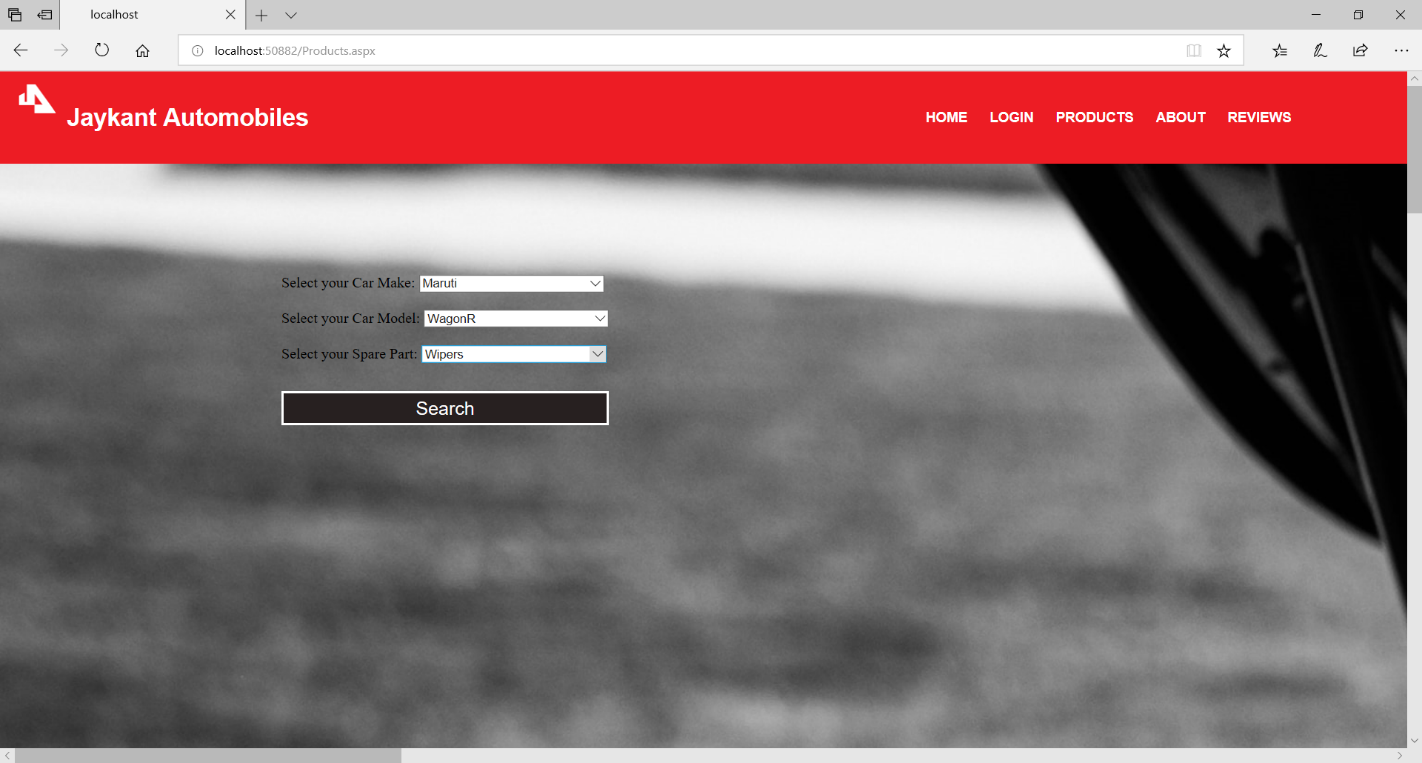
Registration Page

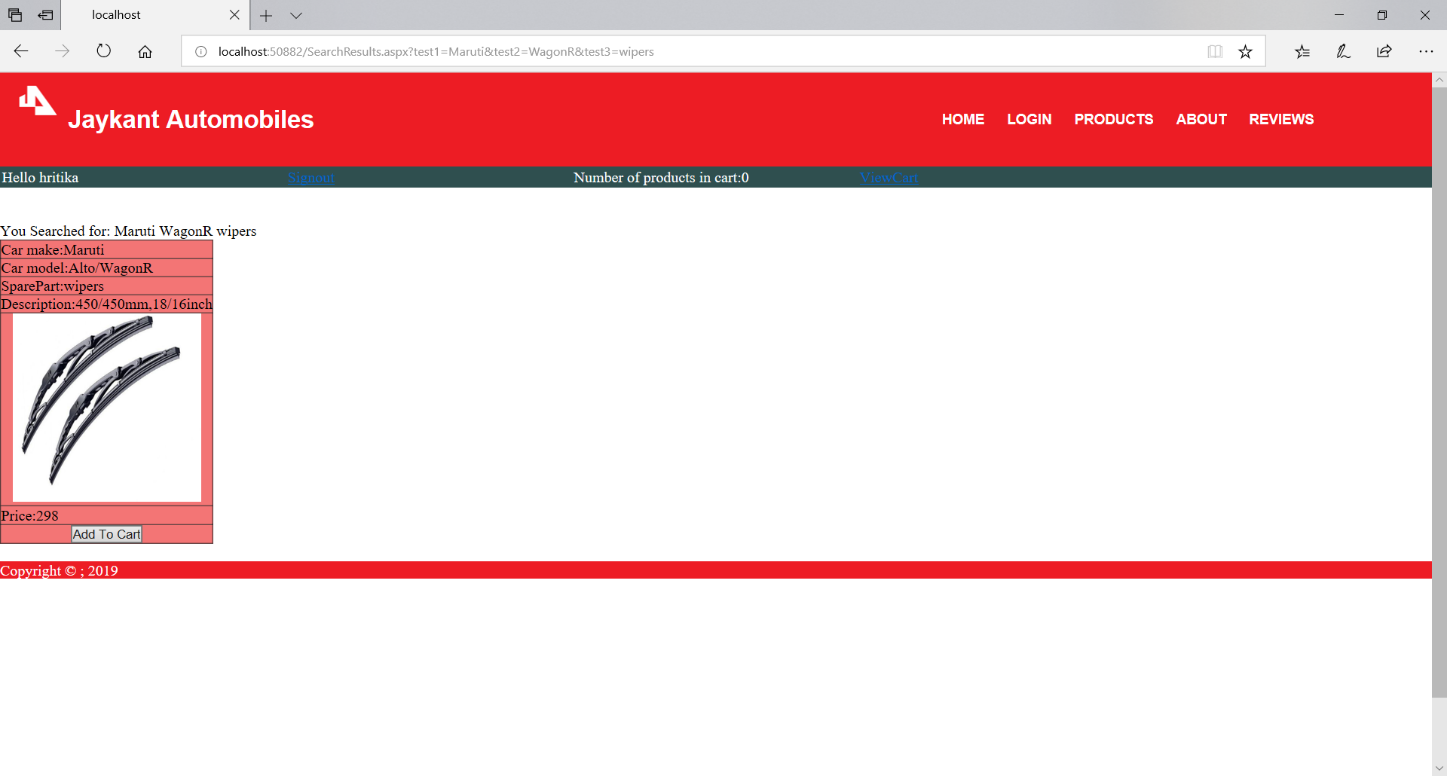


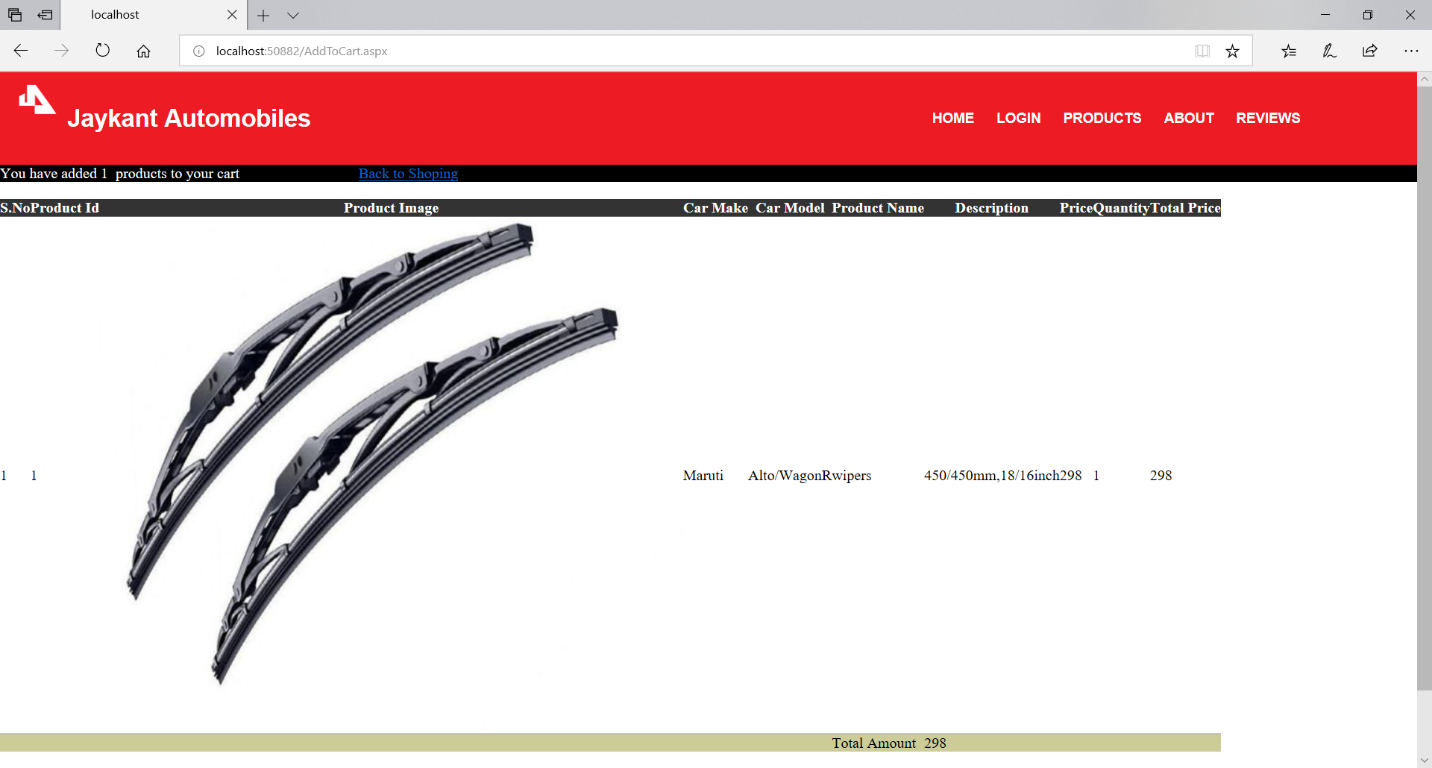
Login Page

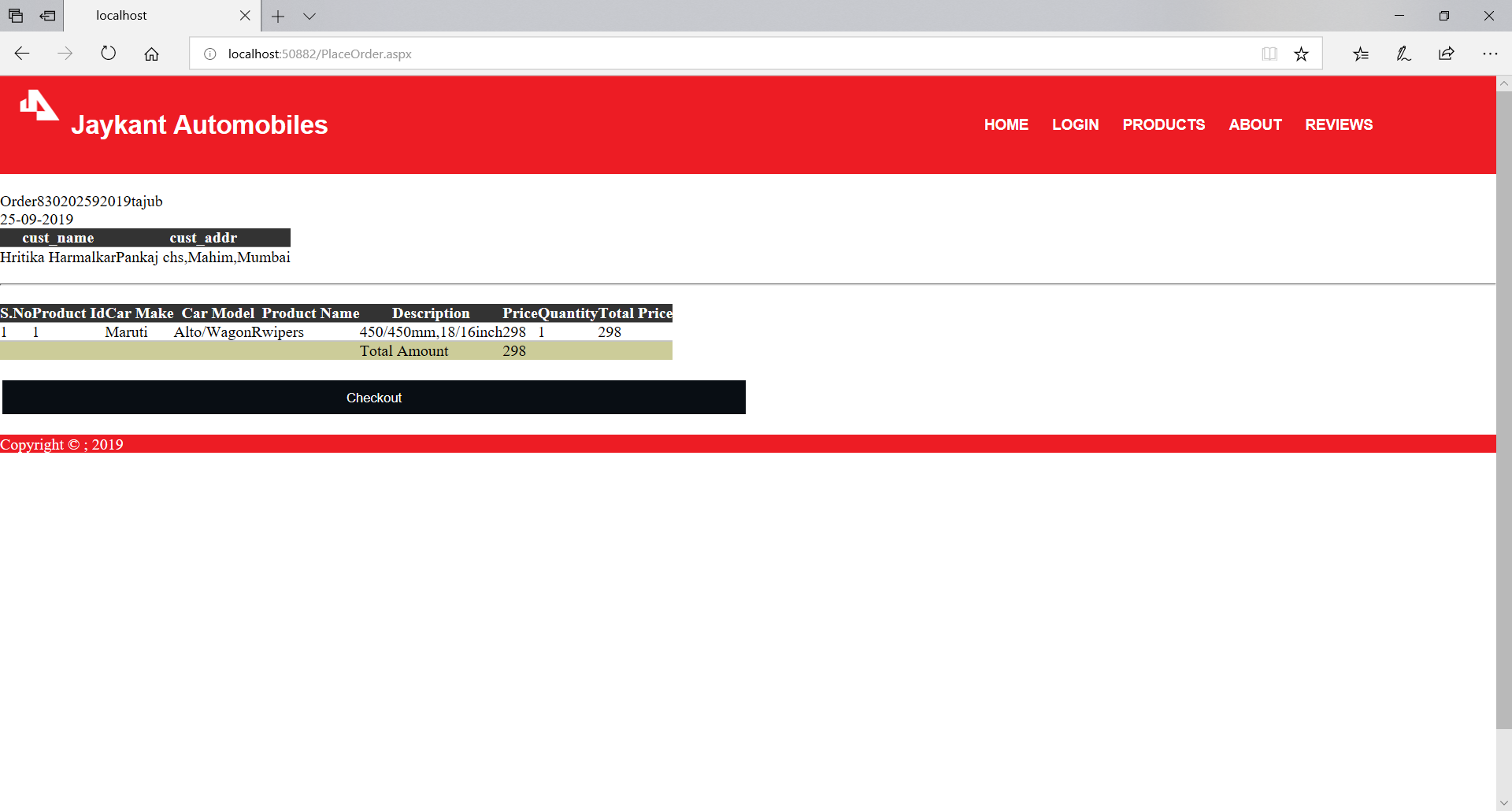


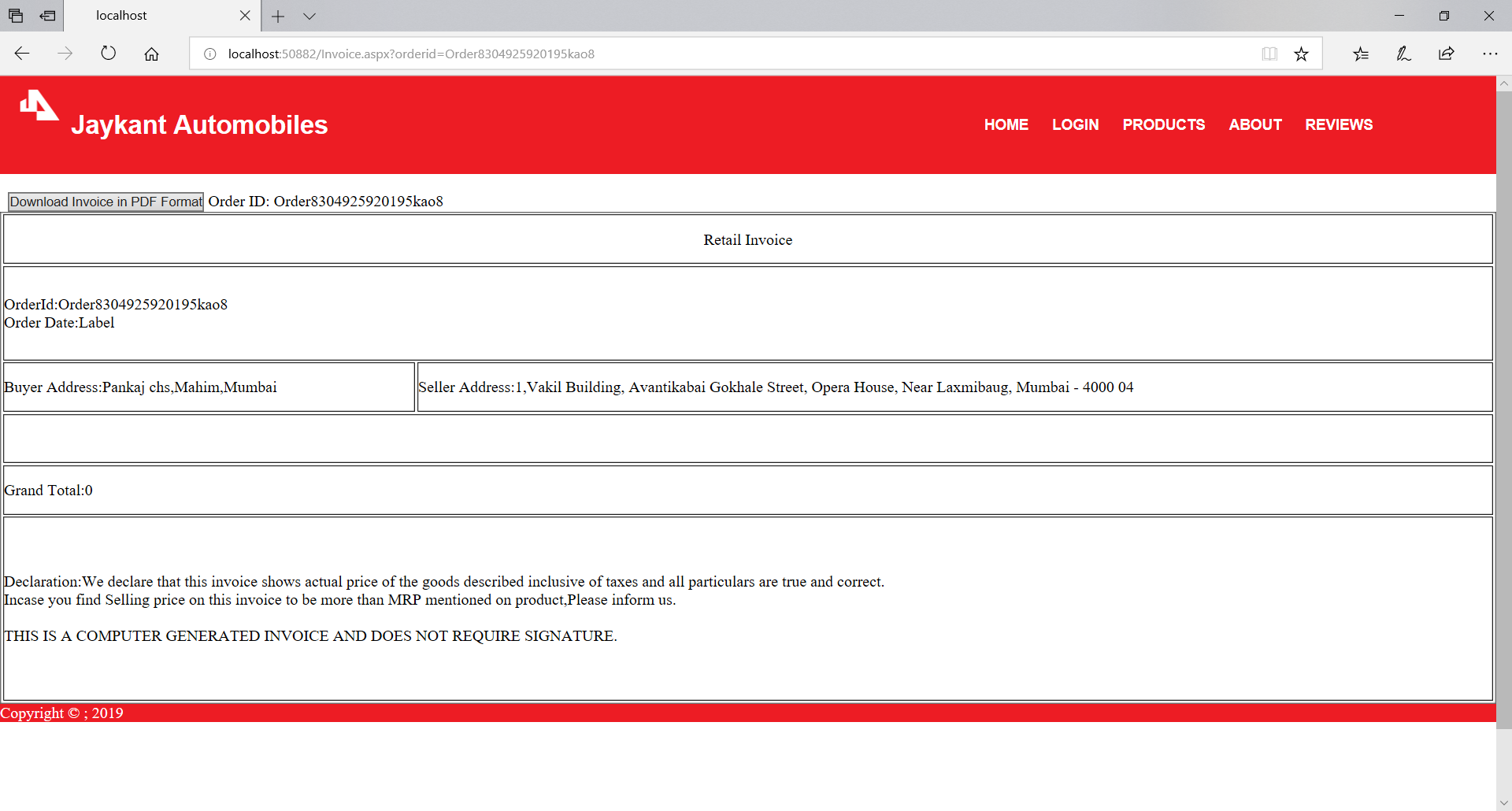
Products Page

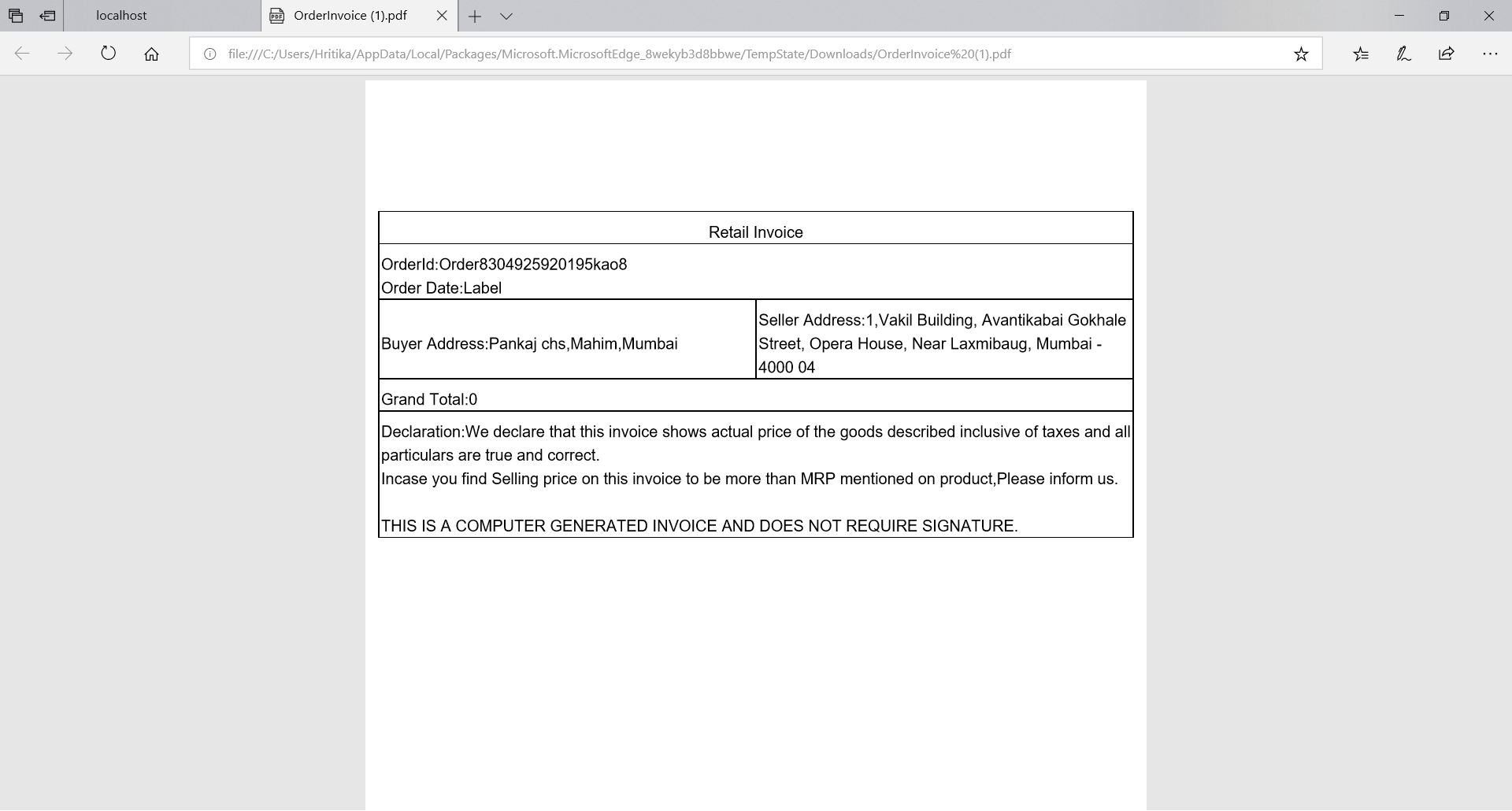


Search result Page 

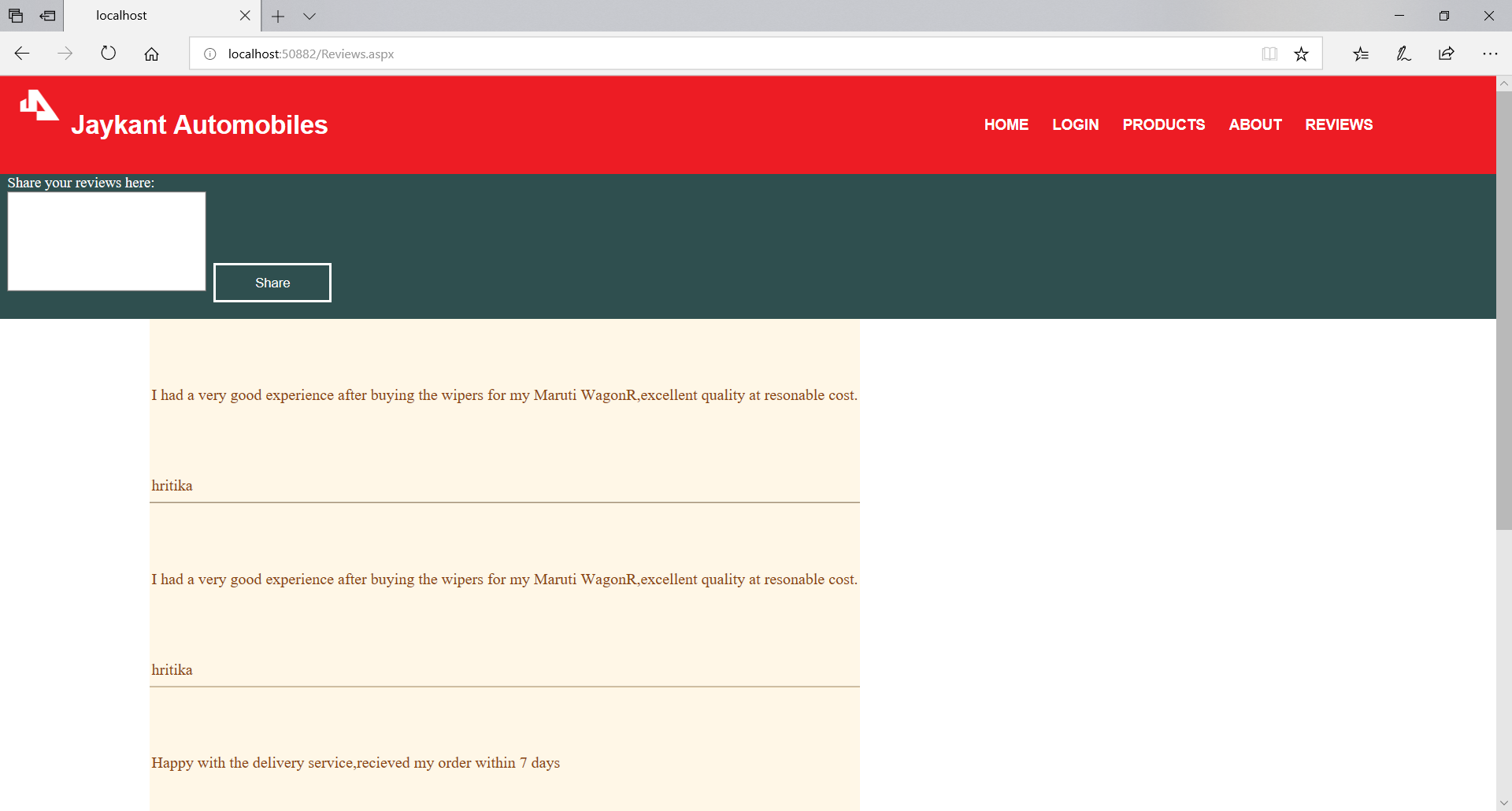
Add to cart Page 

Checkout Page 

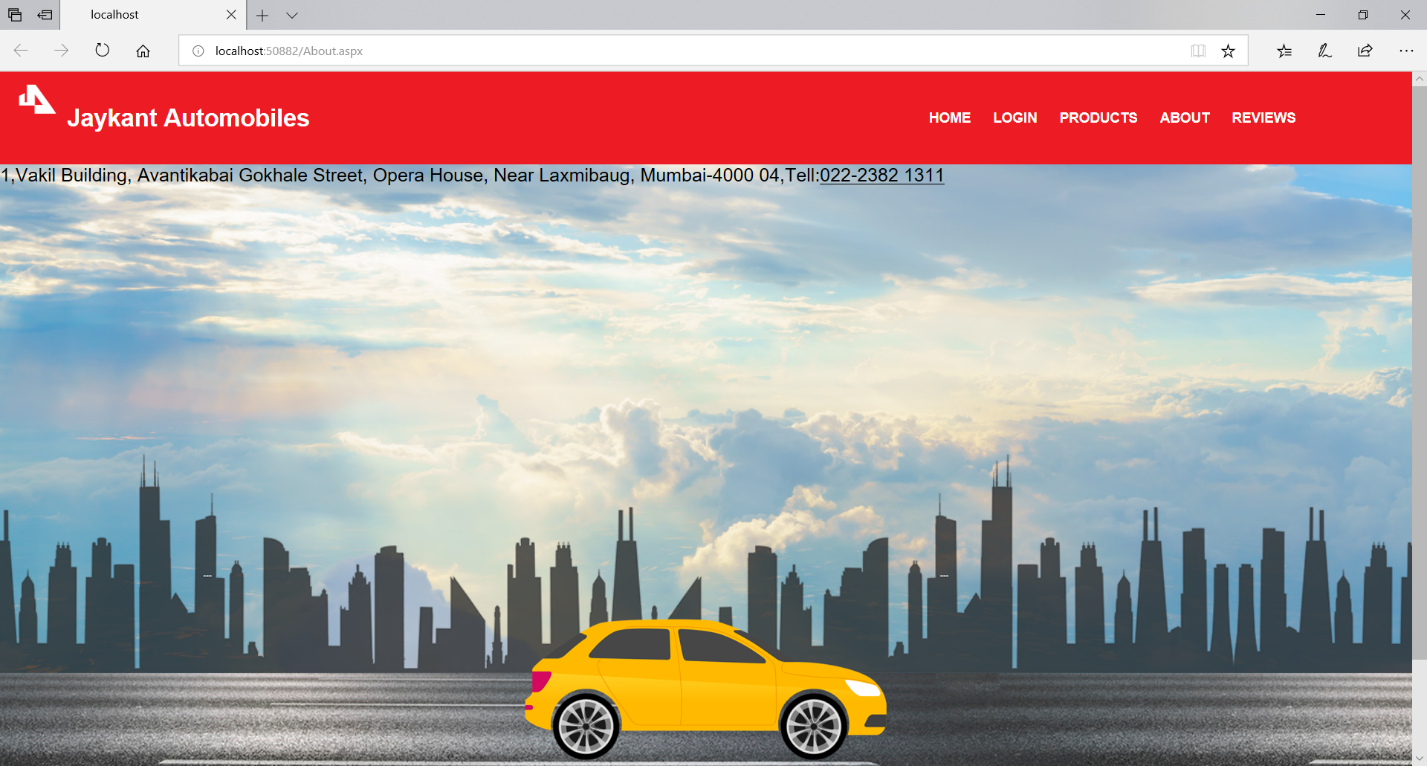
Invoice Page 

Invoice PDF 

Review Page



About Page



**Important codes**

**Page:Login.aspx.cs**

using System;

using System.Collections.Generic;

using System.Linq;

using System.Web;

using System.Web.UI;

using System.Web.UI.WebControls;

using MySql.Data.MySqlClient;

using System.Data;

public partial class Login : System.Web.UI.Page

{

protected void Page\_Load(object sender, EventArgs e)

{

// BindData();

}

protected void loginbtn\_Click(object sender, EventArgs e)

{

if (loginuname.Text == "Admin" && loginpasswd.Text == "admin123")

{

Response.Redirect("AdminPage.aspx");

}

else

{

MySqlConnection conn = new MySqlConnection("server=localhost;user id=root;persistsecurityinfo=True;database=jaykantdb; password=root; allowuservariables=True");

conn.Open();

MySqlDataAdapter sda = new MySqlDataAdapter("select count(\*) from customerdata where c\_uname = '" + loginuname.Text + "'and c\_passwd = '" + loginpasswd.Text + "'", conn);

DataTable dt = new DataTable();

sda.Fill(dt);

if (dt.Rows[0][0].ToString() == "1")

{

Loginmsg.Text = "Login Successful";

Session["username"] = loginuname.Text;

Session["buyitems"] = null;

fillsavedCart();

// Response.Redirect("Home.aspx");

}

else

{

Loginmsg.Text = "Invalid Login Please check your username and password";

}

conn.Close();

}

}

private void fillsavedCart()

{

DataTable dt = new DataTable();

DataRow dr;

dt.Columns.Add("sno");

dt.Columns.Add("productid");

dt.Columns.Add("scmake");

dt.Columns.Add("scmodel");/\*mycode\*/

dt.Columns.Add("productname");

dt.Columns.Add("scdescription");

dt.Columns.Add("quantity");

dt.Columns.Add("price");

dt.Columns.Add("totalprice");

dt.Columns.Add("productimage");

String mycon = "server=localhost;user id=root;persistsecurityinfo=True;database=jaykantdb; password=root; allowuservariables=True";

MySqlConnection scon = new MySqlConnection(mycon);

String myquery = "select \* from savedcart where username='" + Session["username"].ToString() + "'";

MySqlCommand cmd = new MySqlCommand();

cmd.CommandText = myquery;

cmd.Connection = scon;

MySqlDataAdapter da = new MySqlDataAdapter();

da.SelectCommand = cmd;

DataSet ds = new DataSet();

da.Fill(ds);

if (ds.Tables[0].Rows.Count > 0)

{

int i = 0;

int counter = ds.Tables[0].Rows.Count;

while (i < counter)

{

dr = dt.NewRow();

dr["sno"] = i + 1;

dr["productid"] = ds.Tables[0].Rows[i]["productid"].ToString();

/\*mycode\*/ dr["scmake"] = ds.Tables[0].Rows[0]["scmake"];

dr["scmodel"] = ds.Tables[0].Rows[0]["scmodel"];

dr["productname"] = ds.Tables[0].Rows[i]["productname"].ToString();

dr["scdescription"] = ds.Tables[0].Rows[0]["scdescription"].ToString();

dr["productimage"] = ds.Tables[0].Rows[i]["productimage"].ToString();

dr["quantity"] = "1";

dr["price"] = ds.Tables[0].Rows[i]["price"].ToString();

int price1 = Convert.ToInt16(ds.Tables[0].Rows[i]["price"].ToString());

int quantity1 = Convert.ToInt16(ds.Tables[0].Rows[i]["quantity"].ToString());

int totalprice1 = price1 \* quantity1;

dr["totalprice"] = totalprice1;

dt.Rows.Add(dr);

i = i + 1;

}

}

else

{

Session["buyitems"] = null;

}

Session["buyitems"] = dt;

}

}

**Page:Products.aspx.cs**

using System;

using System.Collections.Generic;

using System.Linq;

using System.Web;

using System.Web.UI;

using System.Web.UI.WebControls;

using MySql.Data;

using MySql.Data.MySqlClient;

using System.Data;

public partial class Products : System.Web.UI.Page

{

MySqlConnection con = new MySqlConnection("server=localhost;user id=root;persistsecurityinfo=True;database=jaykantdb;password=root;allowuservariables=True");

protected void Page\_Load(object sender, EventArgs e)

{

if (!this.IsPostBack)

{

con.Open();

MySqlDataAdapter sda = new MySqlDataAdapter("select \* from carmake", con);

DataTable dt = new DataTable();

sda.Fill(dt);

DropDownList1.DataSource = dt;

DropDownList1.DataTextField = "carmake\_name";

DropDownList1.DataValueField = "carmake\_id";

DropDownList1.DataBind();

con.Close();

ListItem lstitem = new ListItem("--select--", "0");

DropDownList1.Items.Insert(0, lstitem);

DropDownList2.Items.Insert(0, lstitem);

DropDownList3.Items.Insert(0, lstitem);

}

}

protected void DropDownList1\_SelectedIndexChanged(object sender, EventArgs e)

{

int a = Convert.ToInt32(DropDownList1.SelectedItem.Value);

con.Open();

MySqlDataAdapter sda = new MySqlDataAdapter("select \* from carmodel where fcarmake\_id="+a, con);

DataTable dt = new DataTable();

sda.Fill(dt);

DropDownList2.DataSource = dt;

DropDownList2.DataTextField = "carmodel\_name";

DropDownList2.DataValueField = "carmodel\_name";

DropDownList2.DataBind();

con.Close();

}

protected void Button1\_Click(object sender, EventArgs e)

{

String a = DropDownList1.SelectedItem.Text;

String b = DropDownList2.SelectedItem.Text;

String c = DropDownList3.SelectedItem.Value;

Response.Redirect("SearchResults.aspx?test1=" + a + "&test2="+ b + "&test3=" + c);

}

}

**Page:Invoice.aspx.cs**

using System;

using System.Collections.Generic;

using System.Linq;

using System.Web;

using System.Web.UI;

using System.Web.UI.WebControls;

using System.Data;

using MySql.Data.MySqlClient;

using iTextSharp.text;

using System.IO;

using iTextSharp.text.html.simpleparser;

using iTextSharp.text.pdf;

public partial class Invoice : System.Web.UI.Page

{

protected void Page\_Load(object sender, EventArgs e)

{

Label3.Text = Request.QueryString["orderid"];

Panel1.Visible = true;

Label4.Text = Label3.Text;

findorderdate(Label5.Text);

findaddress(Label5.Text);

showgrid(Label5.Text);

}

protected void DownloadInvoice\_Click(object sender, EventArgs e)

{

exportpdf();

}

private void exportpdf()

{

Response.ContentType = "application/pdf";

Response.AddHeader("content-disposition", "attachment;filename=OrderInvoice.pdf");

Response.Cache.SetCacheability(HttpCacheability.NoCache);

StringWriter sw = new StringWriter();

HtmlTextWriter hw = new HtmlTextWriter(sw);

Panel1.RenderControl(hw);

StringReader sr = new StringReader(sw.ToString());

Document pdfDoc = new Document(PageSize.A4, 10f, 10f, 100f, 0f);

HTMLWorker htmlparser = new HTMLWorker(pdfDoc);

PdfWriter.GetInstance(pdfDoc, Response.OutputStream);

pdfDoc.Open();

htmlparser.Parse(sr);

pdfDoc.Close();

Response.Write(pdfDoc);

Response.End();

}

private void findorderdate(String Orderid)

{

String mycon = "server = localhost; user id = root; persistsecurityinfo = True; database = jaykantdb; password = root; allowuservariables = True";

String myquery = "Select \* from orderdetails where orderid='" + Orderid + "'";

MySqlConnection con = new MySqlConnection(mycon);

MySqlCommand cmd = new MySqlCommand();

cmd.CommandText = myquery;

cmd.Connection = con;

MySqlDataAdapter da = new MySqlDataAdapter();

da.SelectCommand = cmd;

DataSet ds = new DataSet();

da.Fill(ds);

if (ds.Tables[0].Rows.Count > 0)

{

Label6.Text = ds.Tables[0].Rows[0]["dateoforder"].ToString();

}

con.Close();

}

private void findaddress(String Orderid)

{

String mycon = "server = localhost; user id = root; persistsecurityinfo = True; database = jaykantdb; password=root; allowuservariables = True";

String myquery = "Select \* from customerdata where c\_uname='" + Session["username"] + "'";

MySqlConnection con = new MySqlConnection(mycon);

MySqlCommand cmd = new MySqlCommand();

cmd.CommandText = myquery;

cmd.Connection = con;

MySqlDataAdapter da = new MySqlDataAdapter();

da.SelectCommand = cmd;

DataSet ds = new DataSet();

da.Fill(ds);

if (ds.Tables[0].Rows.Count > 0)

{

Label6.Text = ds.Tables[0].Rows[0]["cust\_addr"].ToString();

Label7.Text = "1,Vakil Building, Avantikabai Gokhale Street, Opera House, Near Laxmibaug, Mumbai - 4000 04";

}

con.Close();

}

private void showgrid(String orderid)

{

DataTable dt = new DataTable();

DataRow dr;

dt.Columns.Add("sno");

dt.Columns.Add("productid");

dt.Columns.Add("make");

dt.Columns.Add("model");

dt.Columns.Add("productname");

dt.Columns.Add("quantity");

dt.Columns.Add("price");

dt.Columns.Add("totalprice");

String mycon = "server = localhost; user id = root; persistsecurityinfo = True; database = jaykantdb; password=root; allowuservariables = True";

MySqlConnection scon = new MySqlConnection(mycon);

String myquery = "select \* from orderdetails where orderid='" + orderid + "'";

MySqlCommand cmd = new MySqlCommand();

cmd.CommandText = myquery;

cmd.Connection = scon;

MySqlDataAdapter da = new MySqlDataAdapter();

da.SelectCommand = cmd;

DataSet ds = new DataSet();

da.Fill(ds);

int totalrows = ds.Tables[0].Rows.Count;

int i = 0;

int grandtotal = 0;

while (i < totalrows)

{

dr = dt.NewRow();

dr["sno"] = ds.Tables[0].Rows[i]["sno"].ToString();

dr["productid"] = ds.Tables[0].Rows[i]["oproductid"].ToString();

dr["make"] = ds.Tables[0].Rows[0]["omake"];

dr["model"] = ds.Tables[0].Rows[0]["omodel"];

dr["productname"] = ds.Tables[0].Rows[i]["oproductname"].ToString();

dr["quantity"] = ds.Tables[0].Rows[i]["oquantity"].ToString();

dr["price"] = ds.Tables[0].Rows[i]["oprice"].ToString();

int price = Convert.ToInt16(ds.Tables[0].Rows[i]["oprice"].ToString());

int quantity = Convert.ToInt16(ds.Tables[0].Rows[i]["oquantity"].ToString());

int totalprice = price \* quantity;

dr["totalprice"] = totalprice;

grandtotal = grandtotal + totalprice;

dt.Rows.Add(dr);

i = i + 1;

}

GridView1.DataSource = dt;

GridView1.DataBind();

Label8.Text = grandtotal.ToString();

}

public override void VerifyRenderingInServerForm(Control control)

{

/\* Verifies that the control is rendered \*/

}

}