CSY2028 Web Programming PHP & MySQL

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BSc Computing (All Pathways) CSY2028 Internet programming					
Agreed Date for late submission:	**Sunday 30 April 2017**		Module Tutor:	Thomas Butler	
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Aspect (& weighting)	Excellent A	Good B	Satisfactory C	Unsatisfactory D	Needs much more work F
Implementation of requested changes (20%)					
Identification of difficult to maintain code (20%)					

Proposed solutions to make code more maintainable (15%					
Testing (15%)					
Code quality and efficiency (25%)					
Demonstration (5%)					

Specific aspects of the assignment that the marker likes:		Specific aspects of the assignment that need more work:		
Tutor's Signature :		Date :		Grad e:

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Introduction:

This is CSY2028 Web Programming Assignment, based on php and MySql Programming language.The main task in this assignment is to make changes in the Clarie's small car dealership website which was developed by Charlie's nephew several years ago. So that it is now outdated and contains too many bugs that has to be fixed inorder to make dynamic and useful websites. Clarie's has a small car dealership and this website gives the customers to see, what types of cars is in company for sale,view and test drive before buying so that this website plays the role of catalogue.

There are two parts in this website: admin part and the user/customer part. Customers has no right to enter into the admin part so they cannot enter into admin section without the permission of Charlie this means that to enter into the admin panel one should have to enter the username and password defined for Charlie Cars website.

Admin can post news,manage accounts, manage the list of archieve and unarchieve vehicles,add manufacturer, add cars and can see who has send his /her query regarding published cars information or make the contact information.Similarly at the customer/user section all the information posted from the admin panels can be seen.

CheckList:

Following is the checklist of the requested change given by the company to implement and the parts which are solved and unsolved:

Q.N	QuestionDetails	Solved	Unsolved
1.	We're just open on Sundays in the Summer when we're busiest. Would you be able to change the opening hours to state "Sundays: Closed"?	✔	✖
2.	I need to include another page called ""Claire's Careers". We employ new staff (mechanics, sales representatives, and so on) routinely so it is valuable to have some place to put sets of responsibilities. For the time being however, simply put ""Claire's Cars presently has no openings for work accessible, yet continue checking as new positions end up accessible frequently!". I will send over sets of expectations at a later date.	✔	✖
3.	I can include another maker in the organization zone, however the additional producers don't show up on the rundown on the "Showroom" page, would you be able to settle this?	✔	✖
4.	Would you be able to make it so I can "Archieve" cars that are recorded on the site? Because of the idea of the business, individuals wish to purchase an auto and afterward wipe out the arrangement before its contending. I need to expel the auto from the site in this period. It would be valuable in the event that I could "Document" an auto to have it avoided the general population part of the site and afterward can "Restore" it so it's unmistakable again if required. I don't need filed autos showing in the principle list in the administrator zone either however, would you be able to put them on an alternate page or have some method for giving me a chance to choose amongst filed and current autos we have available to be purchased in the rundown?	✔	✖
5.	The site records a cost for every car. We frequently diminish the cost in the event that they don't offer. I'd get a kick out of the chance to have the capacity to store the prior cost. Along these lines, for instance, the site would demonstrate "Was "£2,500, now £2,000". A few cars won't have a was cost, and simply show the	✔	✖

	real cost.		
6	I've now got an helper called Fred who I likewise need to have the capacity to utilize the site to list autos on the site. Right now we both utilize a similar watchword. It would be better in the event that we each had our own particular login and could see who included which autos. I may likewise be getting more staff in future so I'd get a kick out of the chance to have the capacity to oversee accounts myself.	✔	✘
7.	Right now I list the mileage and motor compose (oil or diesel) in the portrayal. It would be better if these had their own particular fields while including the cars and after that showed reliably for every auto when seen on the site.	✔	✘
8	The site gives me a chance to transfer a photograph of every cars except clients might want to see a scope of various edges of the auto. Would you be able to enable me to transfer no less than 4 photographs? Albeit here and there significantly more would be valuable!	✘	✔
9	I need to have the capacity to add news stories to the home page of the site. This could be things like exceptional offers, bank occasion shutting times, and so forth. It would be helpful on the off chance that I could alternatively likewise supply a picture for every story as some of the time I may feature a particular item or a notice for an occasion we're going to. Would you be able to likewise influence it to demonstrate who posted the story and when it was posted? E.g. on the off chance that Fred posts something, demonstrate that he posted it.	✔	✘
10	Right now, the contact page just demonstrates the phone number and email address. Rather would you be able to include a frame that gives somebody a chance to enter ether name, email address, phone and enquiry? I'd like it so the enquiry was put away on the site rather than sent by means of email. In the organization region, the enquires ought to be recorded then we react to the client and stamp them as "Entire" when done. For our records, I'd get a kick out of the chance to have the capacity to see a rundown of past enquires and which individual from staff was the person who managed the enquiry.	✔	✘

DesignStrategy:

The given website is solved using the MVC (Model, View, and Control) and templating. Model– view– controller (MVC) is a structural example normally utilized for creating UIs that partitions an application into three interconnected parts. This is done to isolate inward portrayals of data from the ways data is introduced to and acknowledged from the client. The whole problems are solved using the Model, view Controller concept.
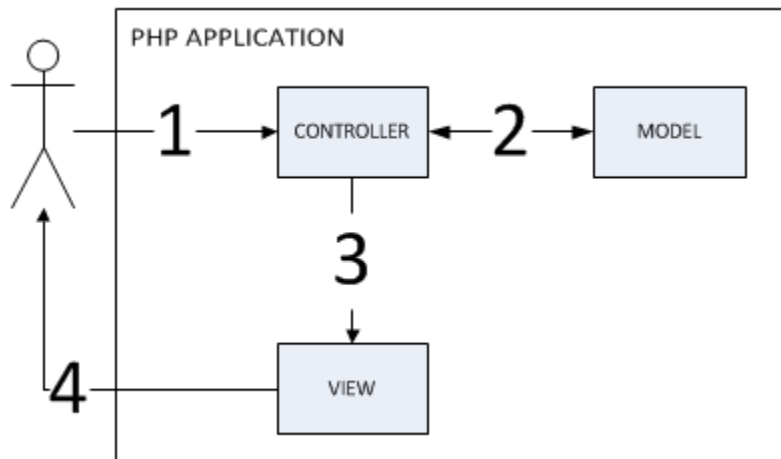

Fig:2.0 Image of the MVC pattern

Similarly, templating is the way of seperating the php codes with the html codes. As we may expect, templating enable us to isolate the view layer from whatever is left of the application. In the most essential situation, we can execute such a way without anyone else (which we'll do in the following segment). We don't require an extraordinary library; here and there it is sufficient just to isolate your view (i.e. the layout's HTML records) into an alternate registry, set up a few factors in the straightforward controller (more often than not the fundamental PHP document) and incorporate the formats.

Identification of Weakness:

The code was charcterized of so many bugs.When this project was downloaded, the css file path was not matched, the path of the image of the cars in the header section and in the main section was not matched so images cannot be opened, due to this cause   while running the index.php file into the browser only the html parts was seen. Similarly, the link of filename inside   buttons was not placed in right manner so there was problems arising while trying to click and running in the browser, and the database connection code has path unmatched issues.These are the problems regarding of the file and path ,lets talk about the code format:

There was   designation by Clarlie's nephew website but it was not that type which can reduce the problems in future extension or adding some extra features and so on. So that we have to designed on that way, so that future extension doesnot let to face problem. Regarding of the problems, all the codes was written in the same files, inside a single file, there was html file, php file, sql connection and so on.So that this is not the standard form which can solve the above explained pattern of problems.To change the single element you have to move to each and every pages so this may take time of future extension and absolutely it increases the maintenance cost. And the way how the page is set up in the browser is not organized so that, this may cause   the chance of increasing invunerability. The main problem is: coding was not done on the basis of the Model View and Controller Pattern. And the problems are solved by not using the database function.

Similarly in the admin panel, anyone can enter into the system by pressing the password textfield with some guessed value.Username and password was not included in any tables in the given .sql file .The page was designed by not considering the point of security.A admin user enters into the admin section but inorder to logout the admin part there was not Logout button/link.So there was maximum chance of losing the admin datas and anybody can access the admin information easily,so from the business point of view too,it was not good. Only the admin section was standed, admin cannot control anythings in the given projects.Neither he/she was able to post for its users, listing the contact information, archieving the cars lists or unarchieve cars list.The following diagrams are the illustration of above problems:

Opening Hours:

Mon-Fri: 09:00-17:30

Sat: 09:00-17:00

Sun: 10:00-16:00

- Home
- Showroom
- About Us
- Contact us

Welcome to Claire's Cars, Northampton's specialist in classic and import cars.

© Claire's Cars 2018

Fig: 2.1 showing that the image path and the file path are not matched.

```html
<ul>
    <li><a href="/">Home</a></li>
    <li><a href="/cars.php">Showroom</a></li>
    <li><a href="/about.html">About Us</a></li>
    <li><a href="/contact.php">Contact us</a></li>
</ul>
```

```html
<img src="images/randombanner.php"/>
```

Fig: 2.2 Show that the link inside the buttons and the images are not properly.

```php
index.php                    ×

?php
pdo = new PDO('mysql:dbname=cars;host=127.0.0.1', 'student', 'student');
ssion_start();

DOCTYPE html>
tml>
    <head>
        <link rel="stylesheet" href="/styles.css"/>
        <title>Claires's Cars - Admin</title>
    </head>
    <body>
    <header>
        <section>
            <aside>
                <h3>Opening Hours:</h3>
                <p>Mon-Fri: 09:00-17:30</p>
                <p>Sat: 09:00-17:00</p>
                <p>Sun: 10:00-16:00</p>
            </aside>
            <img src="/images/logo.png"/>

        </section>
    </header>

    <nav>
        <ul>
            <li><a href="/">Home</a></li>
            <li><a href="/cars.php">Showroom</a></li>
            <li><a href="/about.html">About Us</a></li>
            <li><a href="/contact.php">Contact us</a></li>
        </ul>
    </nav>

    <img src="/images/randombanner.php"/>
    <main class="admin">

    <?php
    if (isset($_POST['submit'])) {
        if ($_POST['password'] == 'opensesame') {
            $_SESSION['loggedin'] = true;
        }
    }

    if (isset($_SESSION['loggedin']) && $_SESSION['loggedin'] == true) {
    ?>

    <section class="left">
```

Fig: 2.3 Show that there is not seperation of the codes:

```html
<nav>
    <ul>
        <li><a href="/">Home</a></li>
        <li><a href="/cars.php">Showroom</a></li>
        <li><a href="/about.html">About Us</a></li>
        <li><a href="/contact.php">Contact us</a></li>
    </ul>
</nav>
```

Fig: 2.4 Shows that there was no button of logout from the system.

```php
<?php
if (isset($_POST['submit'])) {
    if ($_POST['password'] == 'opensesame') {
        $_SESSION['loggedin'] = true;
    }
}

if (isset($_SESSION['loggedin']) && $_SESSION['loggedin'] == true) {
?>

<section class="left">
    <ul>
        <li><a href="manufacturers.php">Manufacturers</a></li>
        <li><a href="cars.php">Cars</a></li>

    </ul>
</section>

<section class="right">
<h2>You are now logged in</h2>
</section>
<?php
}

else {
    ?>
    <h2>Log in</h2>

    <form action="index.php" method="post" style="padding: 40px">

        <label>Enter Password</label>
        <input type="password" name="password" />

        <input type="submit" name="submit" value="Log In" />
    </form>
<?php
}
?>
```
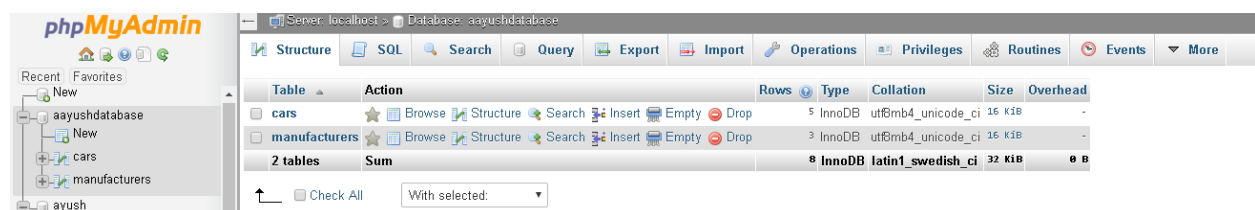
Fig: 2.4 Shows that it only check the password and there is not check of password; taking from the database so anyone can acess in admin section.

Fig: 2.5 the given database:

Solutions:

After identified a lot of problems in above codes of website designed by Clarlie, for the better practise and to remove   arising of future problems while launching new features, it is designed newly using the Model   View and Control (MVC) patterns.Model contains the database connection code, view contains

the templating (template.php) code and the Control contains only the page i.e (.php).All the html, css, database connection code are arranged in different files. So by changing into the one file, all the pages are modified, .All the html codes are placed in layout.php.


```
      model
      New folder
  ▼   public_html
        .htaccess
        index.php
      view
      controller
  ▼   css
        /* styles.css
      db
      functions
      images
      model
      public_html
      test
      unittest
  ▼   view
        about_template.php
        aston_template.php
        car_template.php
        charlieCars_template.php
        contact_template.php
        home_template.php
        jaguar_template.php
        layout.php
        mercedes_template.php
      getGrade.php
      isPass.php
   <> phpUnit.xml
      test.php
```

```
layout.php                    ×
1   <!DOCTYPE html>
2   <html>
3       <head>
4           <link rel="stylesheet" href="../css/styles.css"/>
5           <title><?php echo $title; ?></title>
6       </head>
7       <body>
8       <header>
9           <section>
10              <aside>
11                  <h3>Opening Hours:</h3>
12                  <p>Mon-Fri: 09:00-17:30</p>
13                  <p>Sat: 09:00-17:00</p>
14                  <p>Sun: Closed</p>
15              </aside>
16              <img src="../images/logo.png"/>
17
18          </section>
19      </header>
20      <nav>
21          <ul>
22              <!-- <li><a href="index.php?page=jaguar">Jaguar</a></li> -->
23              <li><a href="index.php?page=home">Home</a></li>
24              <li><a href="index.php?page=cars">Showroom</a></li>
25              <li><a href="index.php?page=about">About</a></li>
26              <li><a href="index.php?page=contact">Contact us</a></li>
27          </ul>
28      </nav>
29      <img src="../images/randombanner.php"/>
30          <?php
31              echo $content;
32          ?>
33          <footer>
34          &copy; Claire's Cars 2018
35          </footer>
36      </body>
37   </html>
38
39
```

Fig: 3.1Show that there is only one html files.By changing the contents of html file, all the pages can be modified.
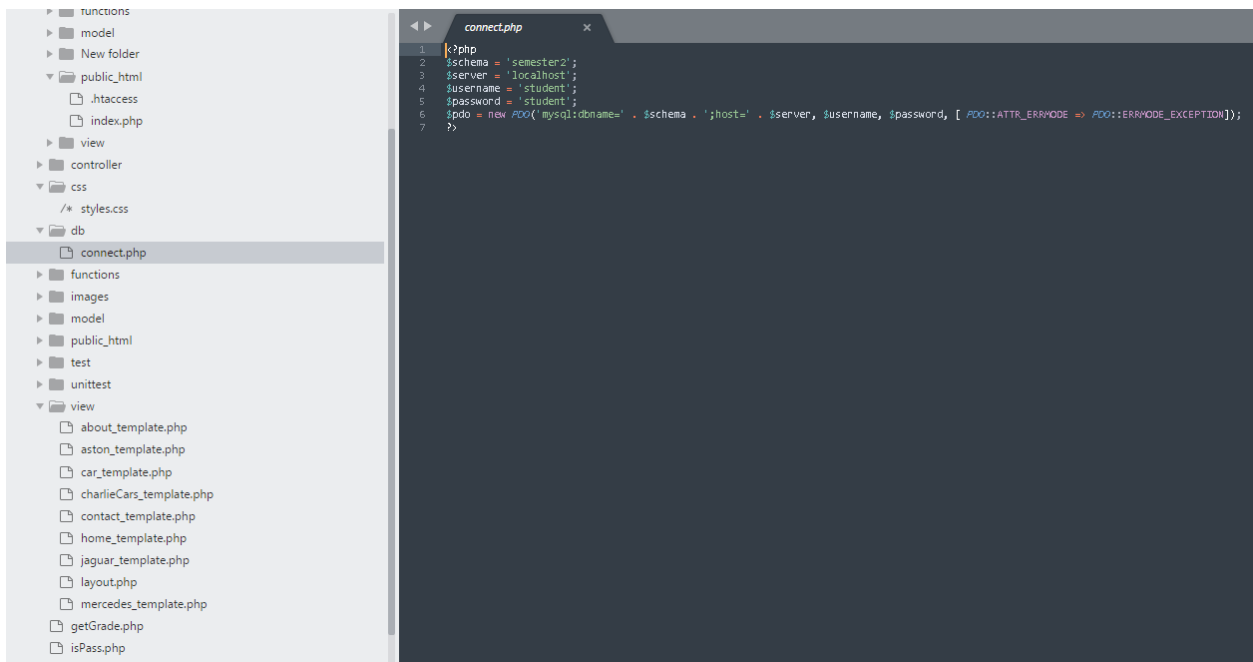
Fig.3.2 shows that there is one file for the database connection which works for all the files:
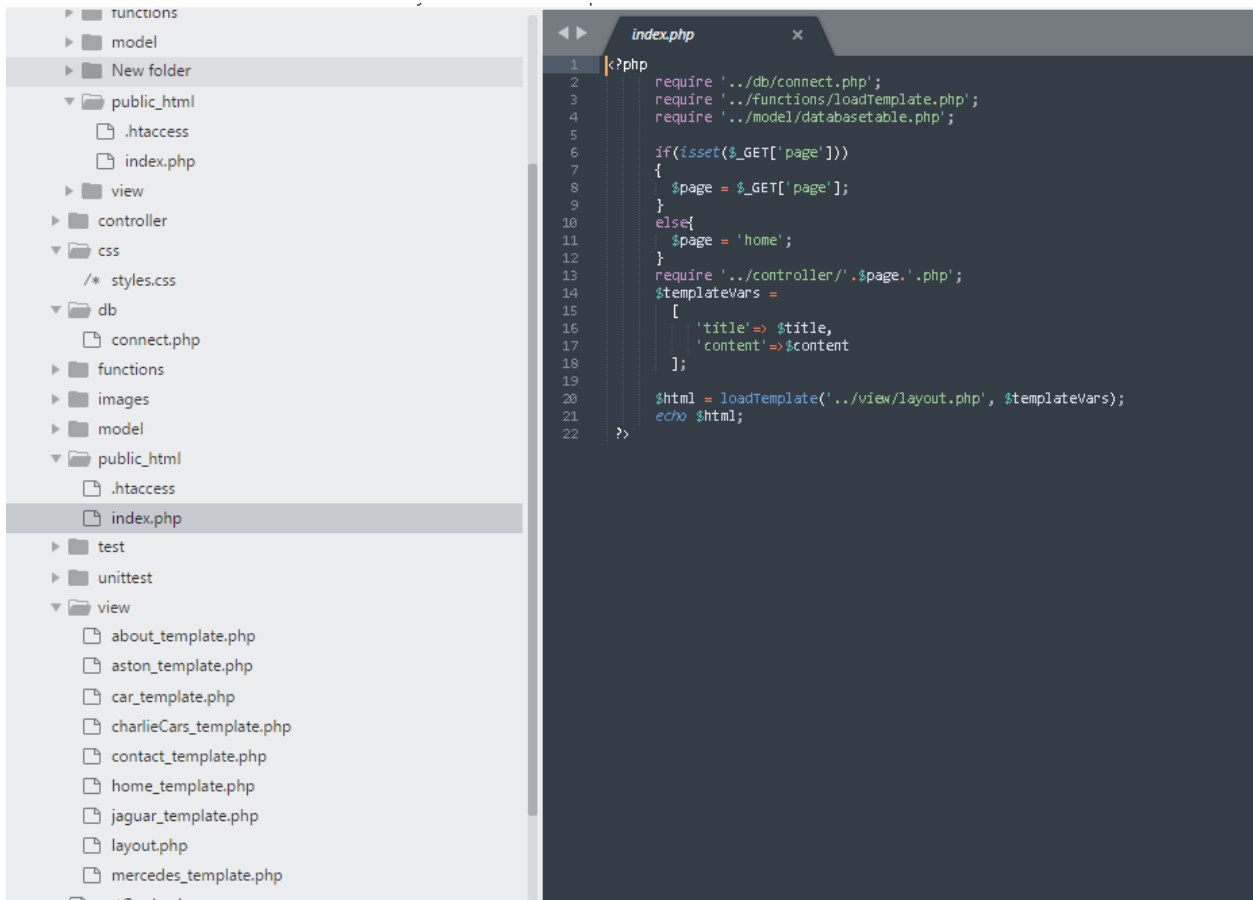
Fig: 3.3 Shows that the page runs through this gateway:

Fig: 3. 3 Explains that all files placed under the controller folders are loaded once by one .This variable $templateVars contains the information of title and the contents of the template files.And moves to the loadTemplate function, here it returns the fileName and contents information from the templating file.The below presented figure of codes act as the main engine of this website.
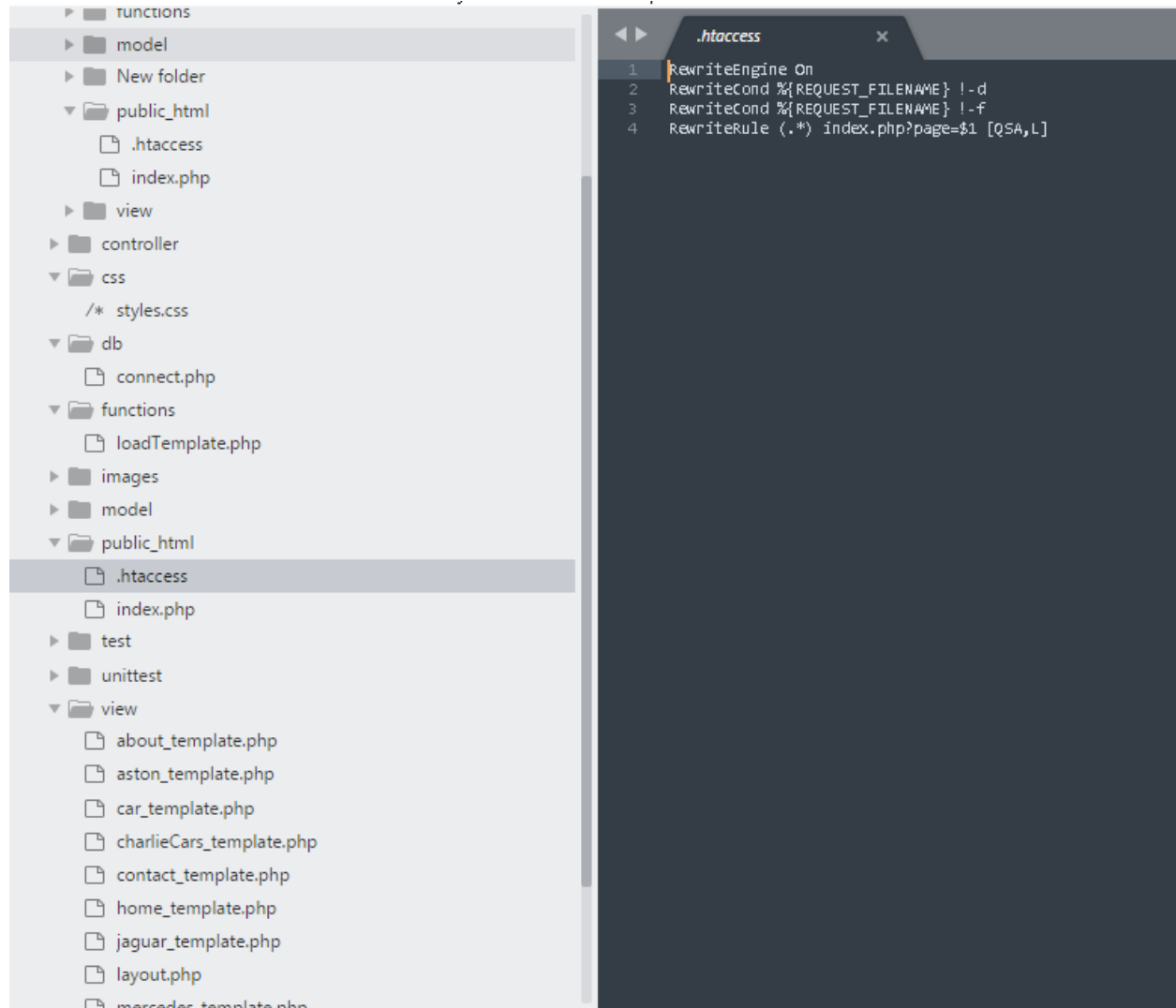
Fig 3.4 Show that .htaccess page
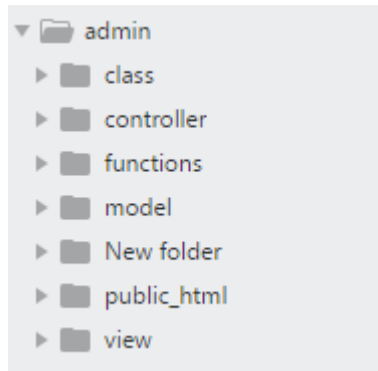
Fig: Shows that the design is performed on the templating and MVC pattern.
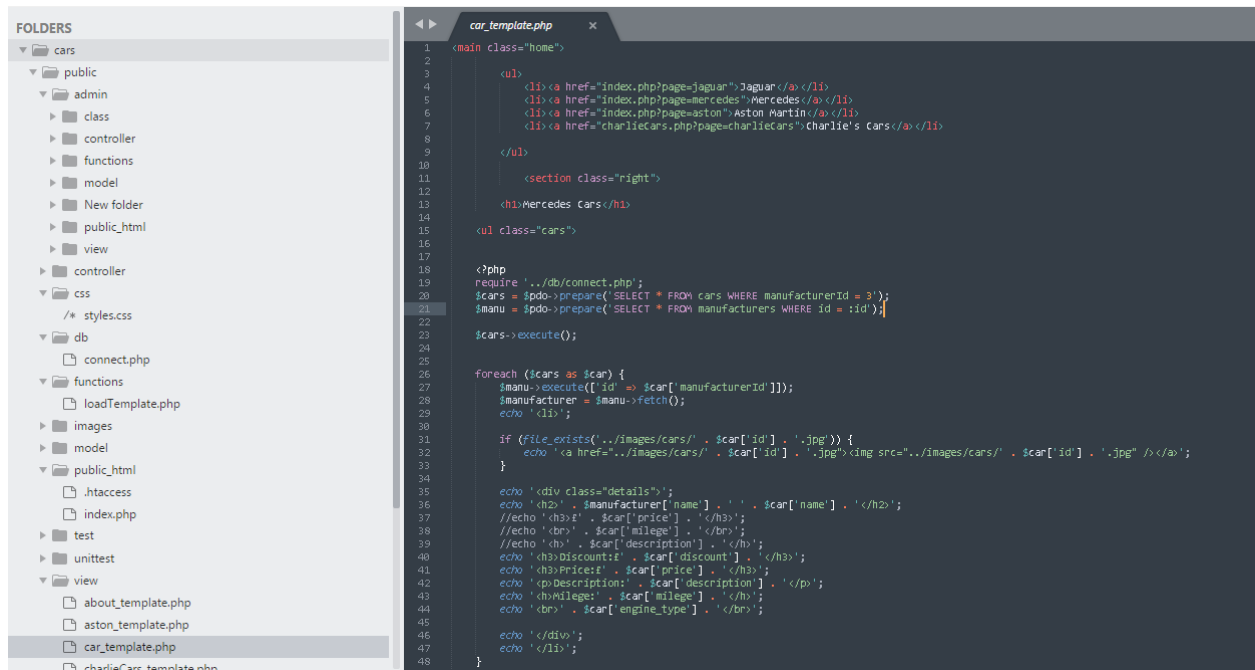
Fig: Show that template of cars, jaguar, Aston; mercedes are done in this way in user panel.
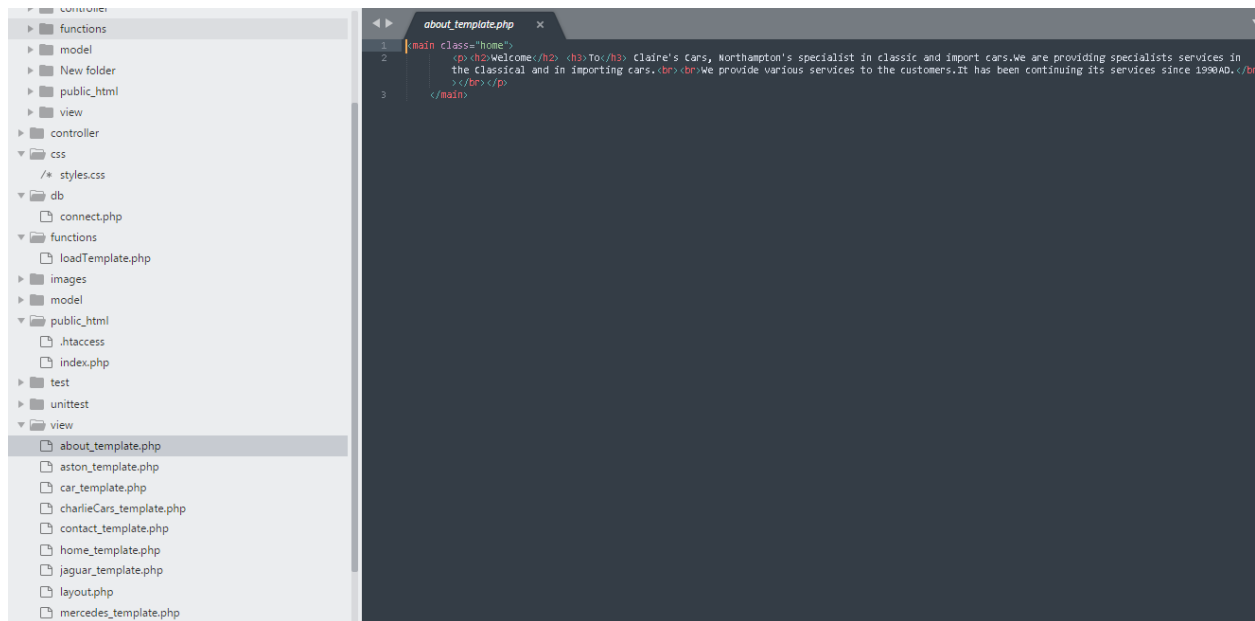
Fig: 3.7 Shows that thetemplate of Aston, about is done in this pattern.


```
<ul>
    <li><a href="index.php?page=jaguar">Jaguar</a></li>
    <li><a href="index.php?page=mercedes">Mercedes</a></li>
    <li><a href="index.php?page=aston">Aston Martin</a></li>
    <li><a href="charlieCars.php?page=charlieCars">Charlie's Cars</a></li>

</ul>
```
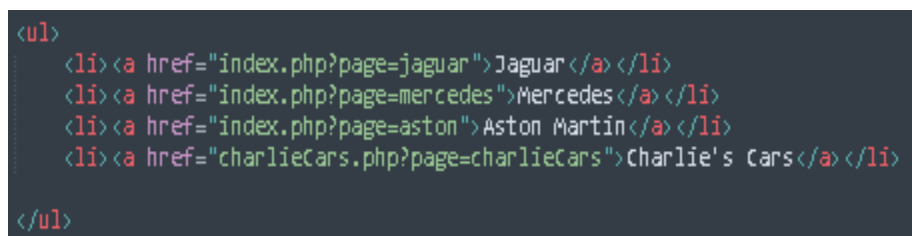
Fig 3.8 Show the links of the pages are given in the different pattern.
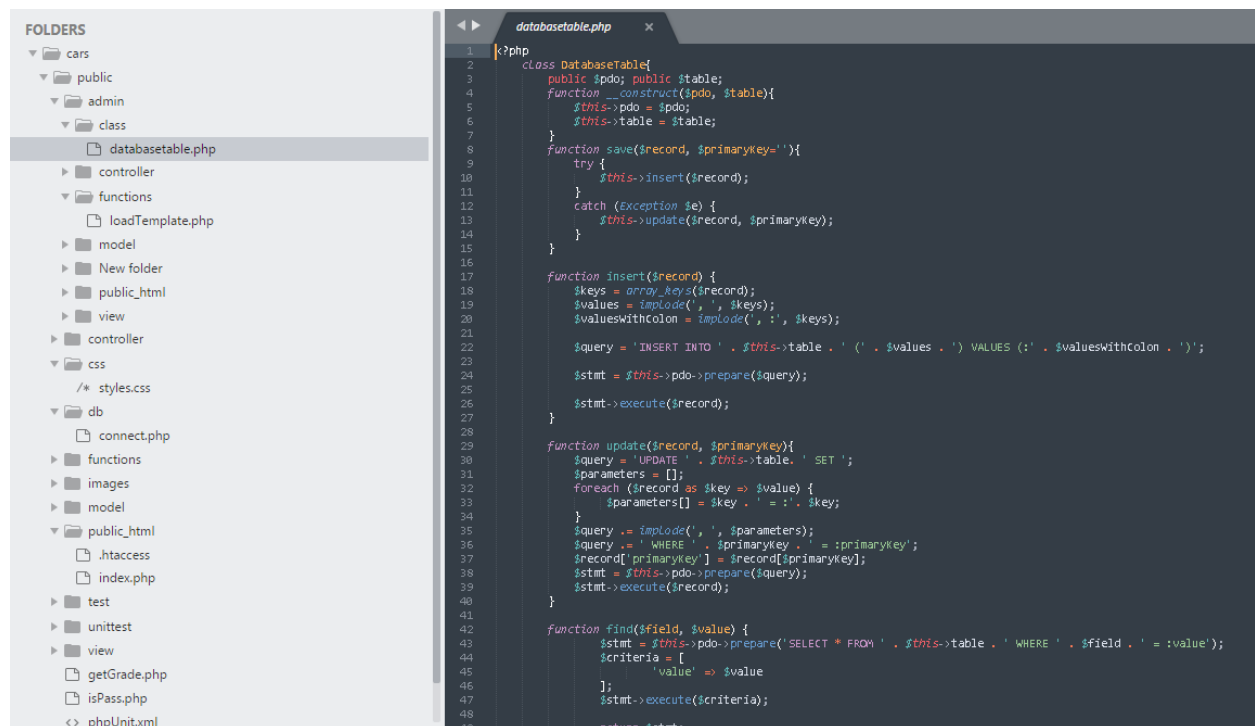
Fig3.9: Show that the for the function of database operation, it is solved using the database class.

Fig: 4.0 Show the files and folder in htdocs for the project.

Claire's CarS

Opening Hours:
Mon-Fri: 09:00-17:30

Sat: 09:00-17:00

Sun: closed

Home   Showroom   About   Contact us

All news

Grand Offering For Honda Items

Desciption: Company has decided to bring offer of discount in the occasion of Christmas.

Fig: 4.1.0 shows the opening of home page:

- Jaguar
- Mercedes
- Aston Martin
- Charlie's Cars

Mercedes Cars

Jaguar Audi A3 Cabriolet

Discount:£210
Price:£1500
Description:ShinyBlueCar

Milege:200km/hr
Petrol

Jaguar Maruti Suzuki Ciaz

Discount:£100
Price:£1600
Description:Gray

Milege:120km/hr
Diesel

Fig: 4.1.1 Shows page of Showroom:

Fig: 4.1.3 shows the Jaguars Cars List while clicking the Jaguar link:

Fig: 4.1.4 Show the list of Merceds Cars

Aston Martin Cars

Mercedes Honda

£1000
This is the good car

Discount:£120

Milege:17km/hr
Diesel

Mercedes MPV

£1000
Shiny Yellow Color Car

Discount:£200

Milege:1000km/hr
Diesel

Mercedes HatchBack

£1600
RedColor

Discount:£200

Milege:180km/hr
Diesel

Fig: 4.1.5 Show the list of Aston Martin cars when clicking the Aston Martin Car link:

Opening Hours:
MON-FTI: 09:00-17:30
Sat: 09:00-17:00
SUN: Closed

Home   Showroom   About   contact us

Not available now

Claire's Cars currently has no job opportunities available,
but keep checking as new positions become available regularly!. We will send over job descriptions at a later date.Keep in touch with us

Fig: 4.1.6 Show the list of Charlie cars:
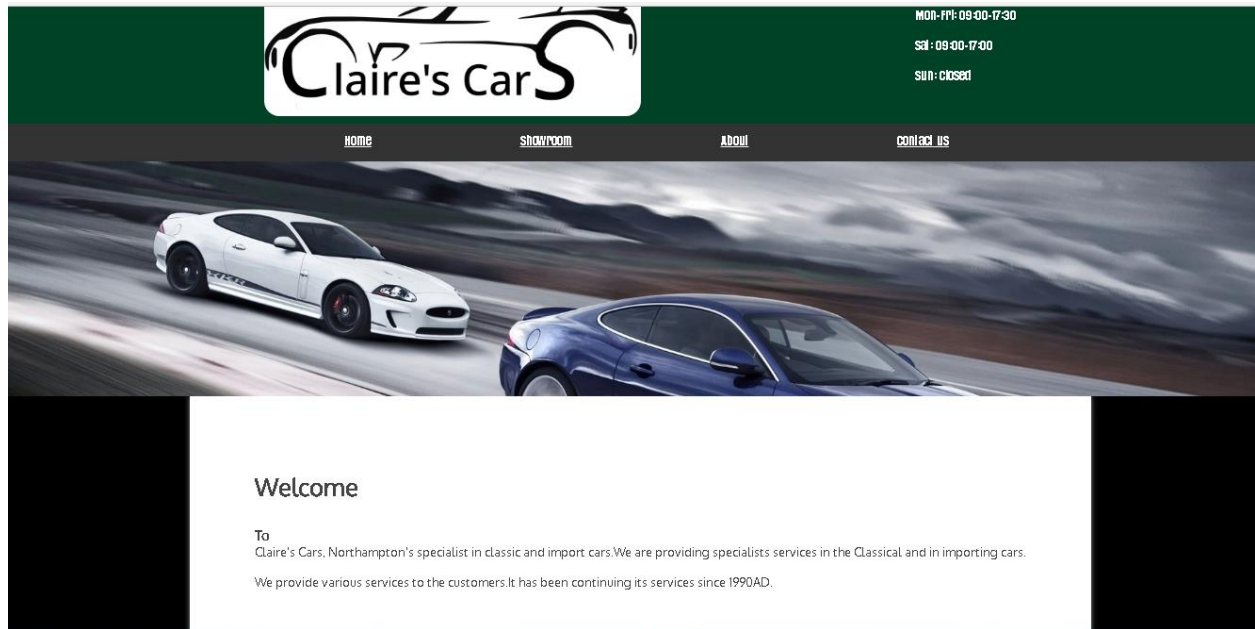
Fig: 4.1.7 for the about page:

Fig: 4.1.8 Show the contact form for any queries

For the admin section all the problems are solved using MVC concepts and the templates like user/Customer Panel:

Fig: 5.0 LoginPage of the admin section
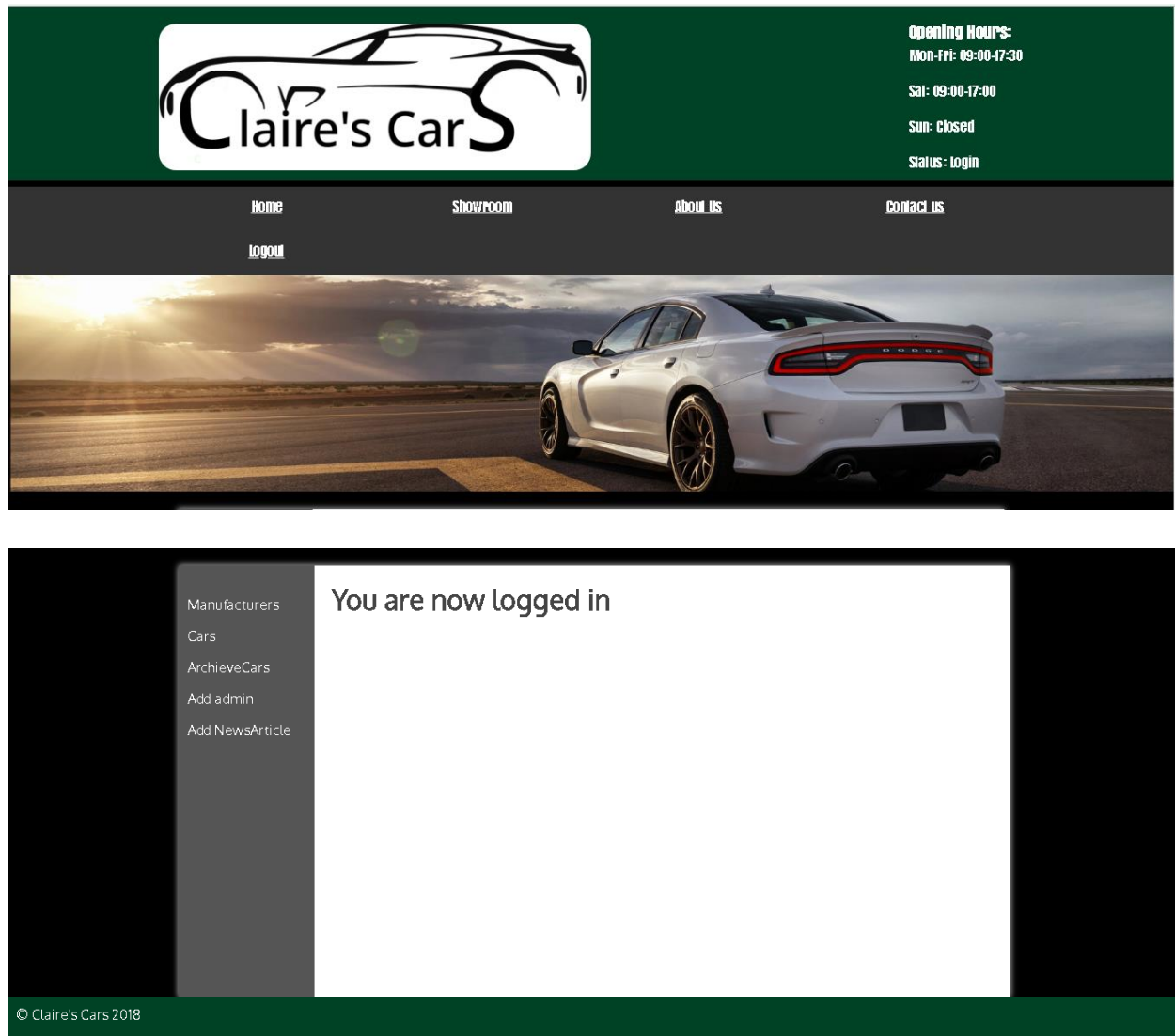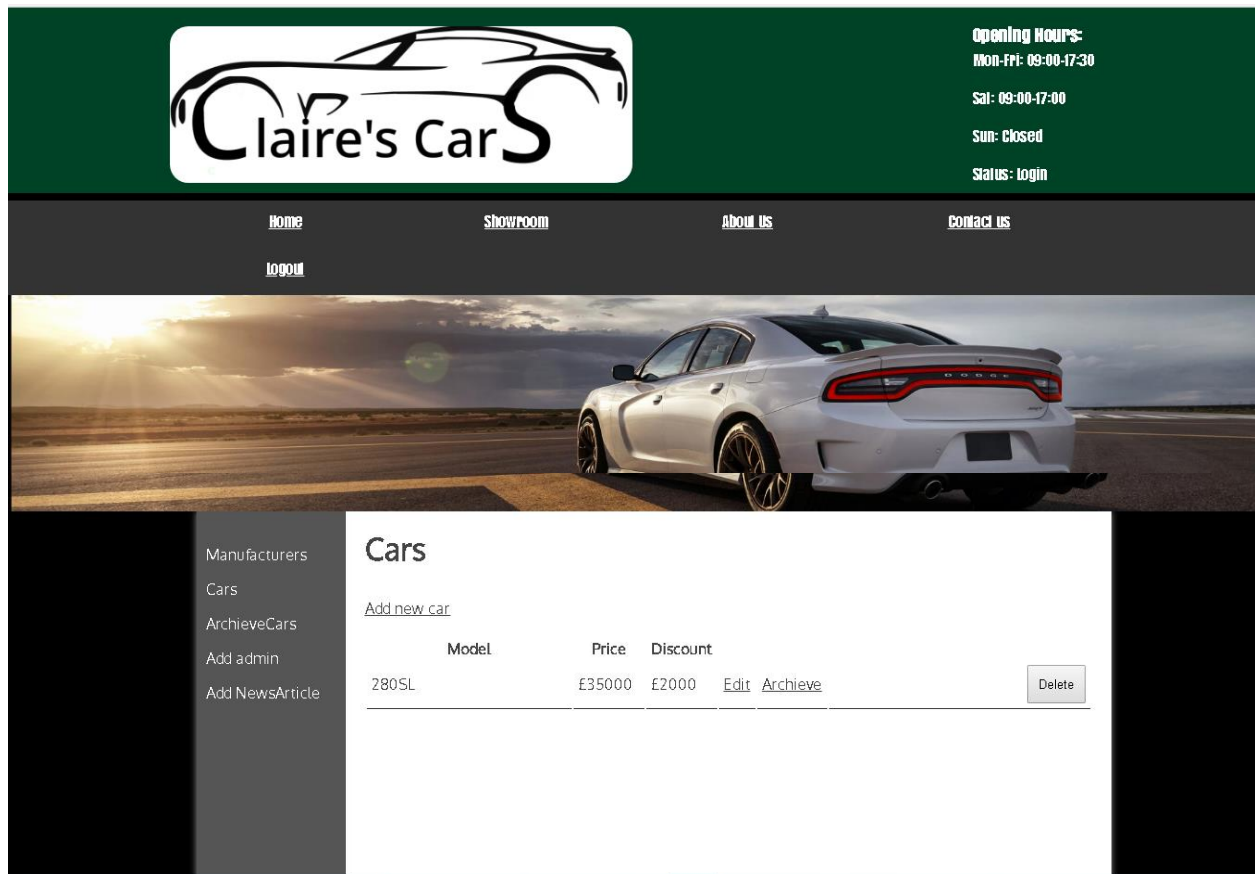
Fig: 5.1 HomePage of adminPanel.
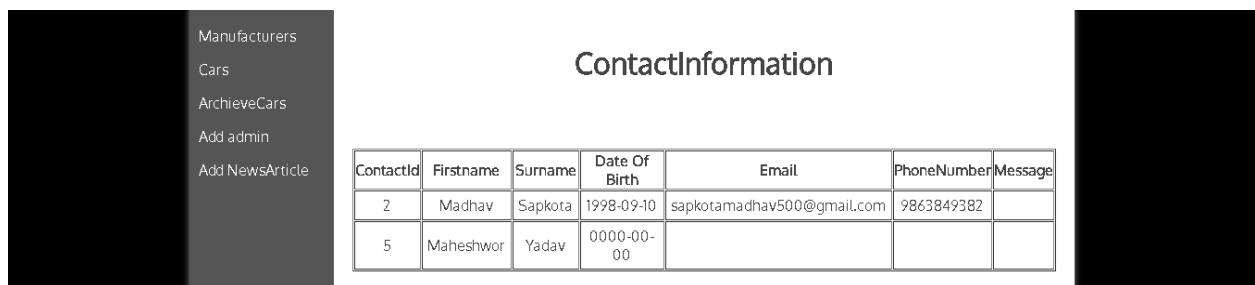
Fig:5.2 While clicking Showroom page:

Fig:5.3 While Clicking the Contact Button:
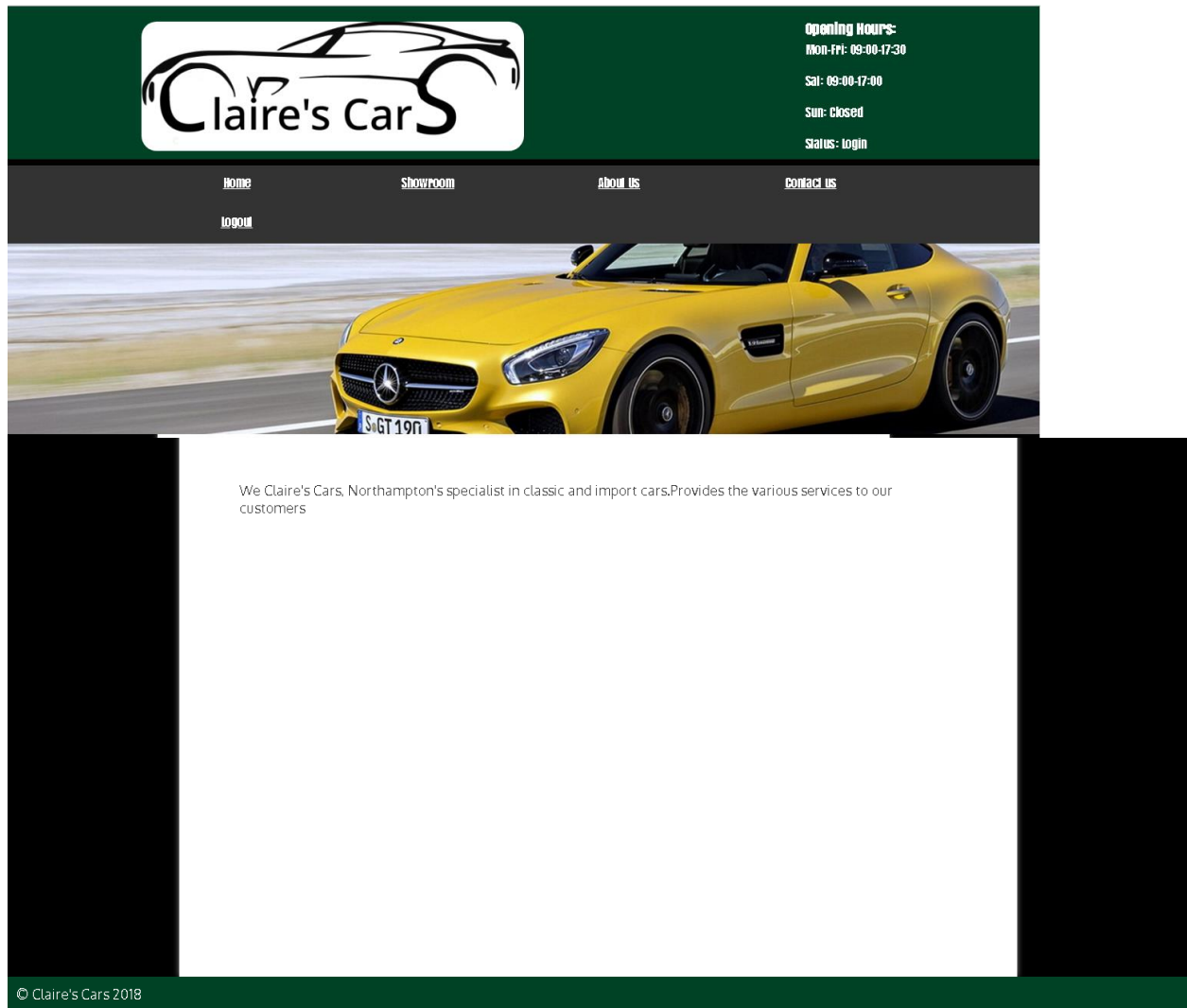
Information obtained from the user panel:
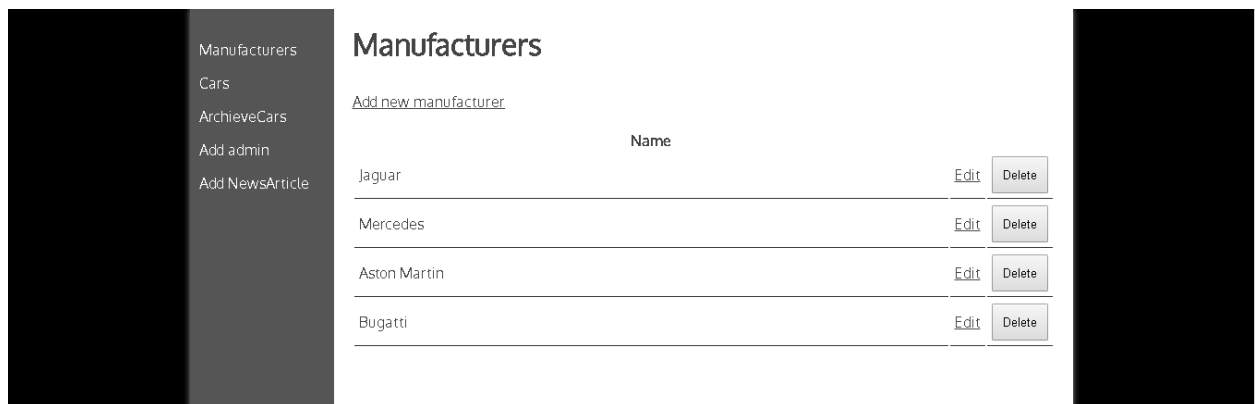
Fig: 5.3 While clicking the about button:

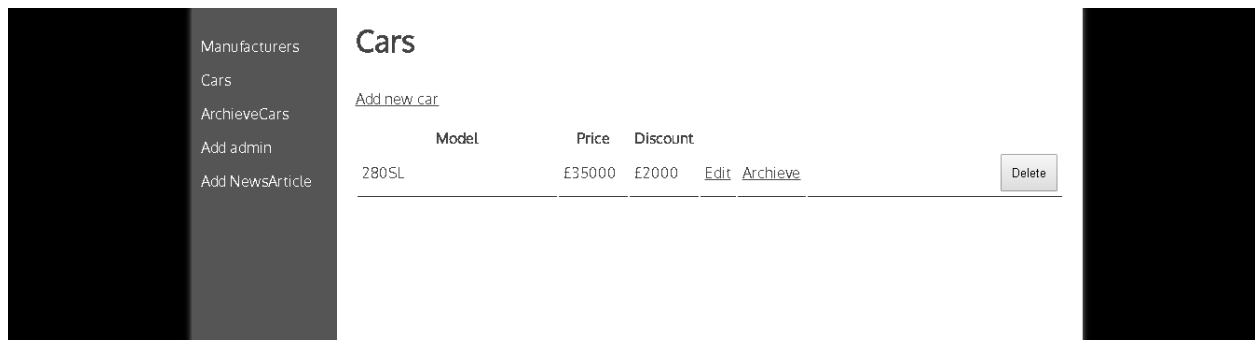Fig: 5.3 Manufacturers link is clicked on the navigation.
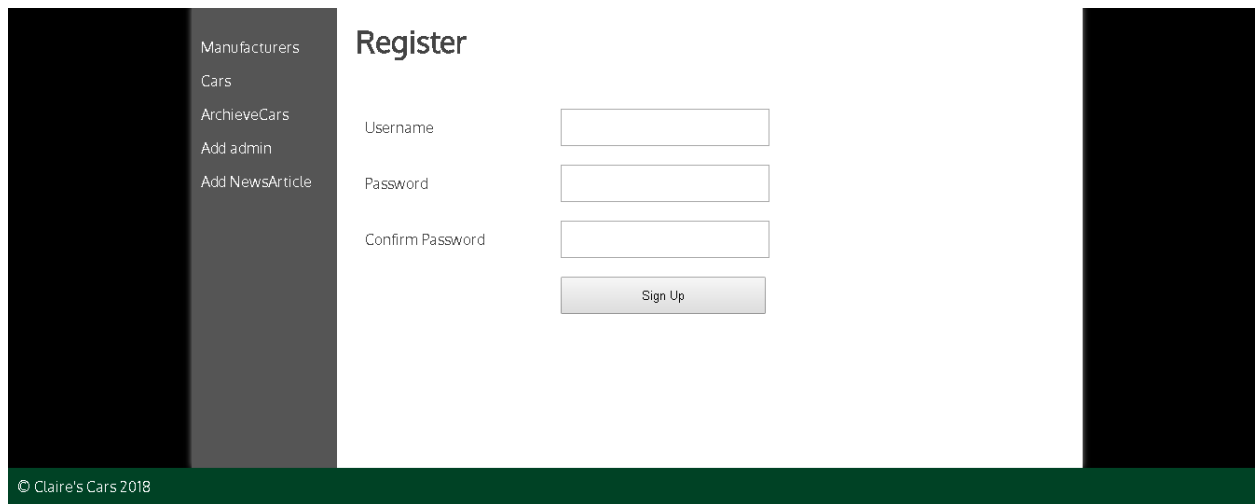
Fig: 5.3Cars link is clicked on the navigation.

Fig: 5.4 WhenAdd a admin link is clicked on the navigation.
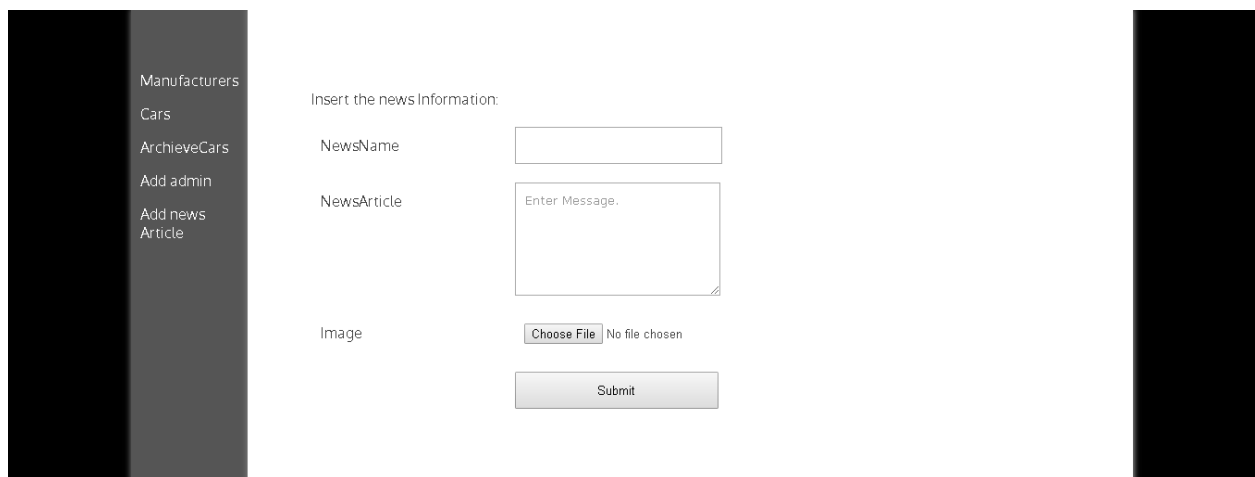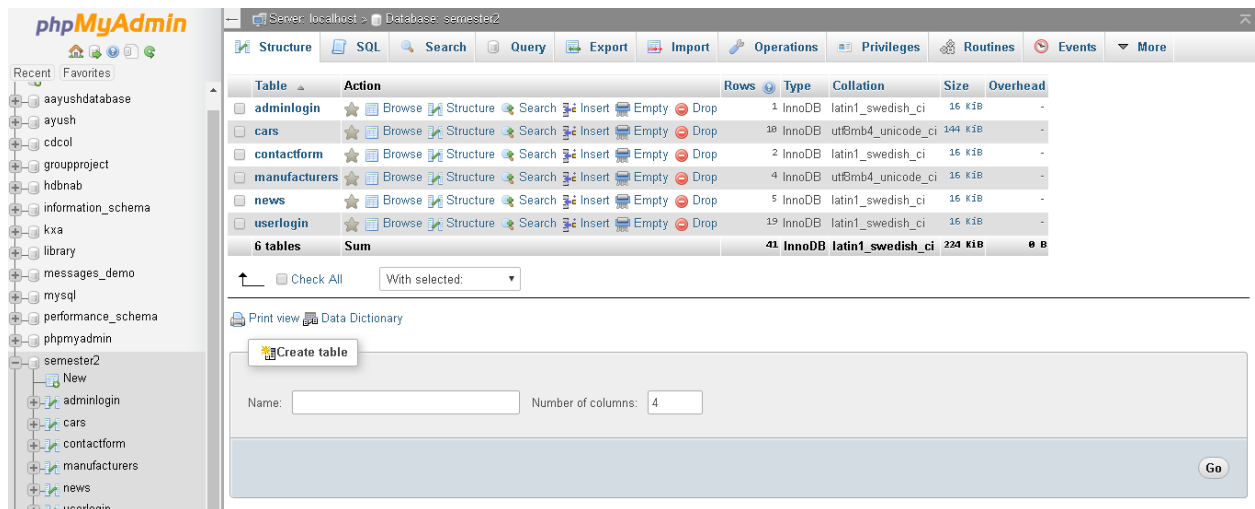

Fig: 5.5 When Add new Article is clicked:

Fig: 5.6 Database Table in Xampp:

In the login part of the Admin section, javasript has used which shows the notifiaction, if user enters the blank username and password.From the login button the login section becomes end and user becomes out of the system.
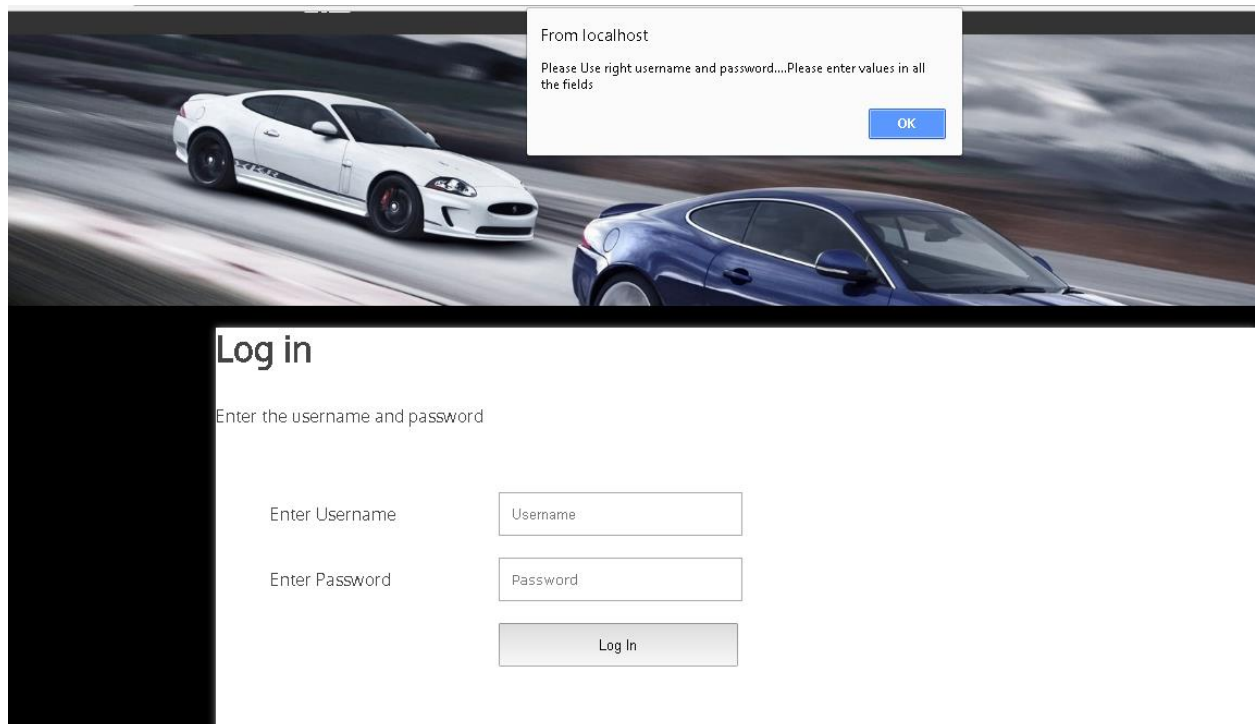

Fig: Shows the use of javascript use:

Testing has not included in this project due to short time.

Conclusion and Recommendations:

Finally, Clarlie websites has been dynamically updated by seperating the html codes, database codes, php codes in the different files.Making single change in the one file leads to change in the whole system. [8.The site gives me a chance to transfer a photograph of every cars except clients might want to see a scope of various edges of the auto. Would you be able to enable me to transfer no less than 4 photographs? Albeit here and there significantly more would be valuable!] this question cannot be solved and   [9) I want to be able to add news stories to the home page of the website. This could be things like special offers, bank holiday closing times, etc. It would be useful if I could optionally also supply an image for each story as sometimes I might be highlighting a specific product or a poster for an event we're attending. Can you also make it show who posted the story and when it was posted? E.g. if Fred posts something, show that he posted it.].In question number 9.I cannot make to show who has posted the news and info and its date, but I solved other section of question number 9. As posting of news, information with image.As shown in video.Hope that this project removes a lot of problems arising in the Clarlie business model. In the recommendation,if there was search button in the website,perhaps it might be more userfriendly.

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