Rate It - Online Product Review

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—**Web Programming Languages (CS6314.002)**

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Description

Online product review web application built to serve as a centralized repository for product information and their reviews. The application's user interface was built using bootstrap along with jQuery for a seamless user experience. The web application was built with smallest components which serve a single functionality to maintain modularity of code. The client made requests to a PHP server using Ajax to retrieve data from a MySql server. We have implemented the required core functionality as mentioned below :

I.   Login & Registration

Instead of md5 and legacy hashing techniques, we have used Password_BCRYPT hashing technique for encrypting password. We have included PASSWORD_HASH method for implementing the above algorithm. Also, we made sure that the password is strong enough for registering the user.

II.   Navigation Header

A fixed header available in every page of the application with links to home page, categories page, clickable subcategory list in a dropdown, search field and login option.

III.   Home Page

A carousel which displayed the top products voted by different users based on the product's average rating. Popular categories window which showcased the categories with the most reviews provided by users.

IV.   Search Functionality

A helpful search functionality to find products based on their title and provide relevant filters which can be applied to the queried products.

V.   Category and Subcategory Page

List of categories and subcategories displayed in a user friendly manner with relevant images as part of their div. If an admin is logged in, edit, delete and add functionalities are presented for managing categories and subcategories.

VI.   Product List Page

List of products displayed for a particular category and subcategory along with pagination functionality. To the left side of the page, filters on brand and features are available to find relative products. When admin is logged in, edit, deleted and add functionalities are presented to manage products.

VII.   Wish List

A personal wish list for users to store products of their liking in a centralized place for future references.

VIII.   Product Page

Hosts the details of products such as total reviews, average rating, product description, product title and price of the product. Below the product, a list of reviews are available for reference to users. If a user is logged in, he can add the product to his wishlist and write a review for the same. User's review for that product is listed at the top with update and delete options available for that owner alone.

IX.   Admin

Admin and users share the same interface but admin get's access to functionalities such as edit, add and delete options for categories, subcategories and products.

Database Design

Tables

BRAND

```
CREATE TABLE `BRAND` (
    `id` int(11) NOT NULL,
    `name` varchar(60) NOT NULL
) ENGINE=InnoDB DEFAULT CHARSET=latin1;
```

CATEGORY

```
CREATE TABLE `CATEGORY` (
    `id` int(11) NOT NULL,
    `name` varchar(60) NOT NULL,
    `deletedyn` varchar(1) NOT NULL,
    `image` varchar(64) NOT NULL
) ENGINE=InnoDB DEFAULT CHARSET=latin1;
```

FEATURES

```
CREATE TABLE `FEATURES` (
    `id` int(11) NOT NULL,
    `name` varchar(60) NOT NULL
) ENGINE=InnoDB DEFAULT CHARSET=latin1;
```

PRODUCT

```
CREATE TABLE `PRODUCT` (
    `id` int(11) NOT NULL,
    `name` varchar(1000) NOT NULL,
    `categoryid` int(11) NOT NULL,
    `subcategoryid` int(11) NOT NULL,
    `brandid` int(11) NOT NULL,
    `price` decimal(10,0) NOT NULL,
    `date` date NOT NULL,
    `content` longtext NOT NULL,
    `deletedyn` varchar(1) NOT NULL,
    `images` varchar(400) NOT NULL
) ENGINE=InnoDB DEFAULT CHARSET=latin1;
```

PRODUCT_FEATURES

```
CREATE TABLE `PRODUCT_FEATURES` (
    `id` int(11) NOT NULL,
    `productid` int(11) NOT NULL,
    `featureid` int(11) NOT NULL
) ENGINE=InnoDB DEFAULT CHARSET=latin1;
```

REVIEW

```
CREATE TABLE ` REVIEW` (
    `id` int(11) NOT NULL,
    `productid` int(11) NOT NULL,
    `userid` int(11) NOT NULL,
    `rating` decimal(10,0) NOT NULL,
    `feedback` longtext NOT NULL,
    `datereviewed` datetime NOT NULL,
    `deletedyn` varchar(1) NOT NULL
) ENGINE=InnoDB DEFAULT CHARSET=latin1;
```

ROLES

```
CREATE TABLE `ROLES` (
    `id` int(11) NOT NULL,
    `rolename` varchar(400) NOT NULL,
    `adminrights` varchar(2) NOT NULL
) ENGINE=InnoDB DEFAULT CHARSET=latin1;
```

SUBCATEGORY

```
CREATE TABLE `SUBCATEGORY` (
    `id` int(11) NOT NULL,
    `categoryid` int(11) NOT NULL,
    `name` varchar(60) NOT NULL,
    `deletedyn` varchar(1) NOT NULL,
    `image` varchar(64) NOT NULL
) ENGINE=InnoDB DEFAULT CHARSET=latin1;
```

USERS

```
CREATE TABLE `USERS` (
    `id` int(11) NOT NULL,
    `username` varchar(60) NOT NULL,
    `fname` varchar(400) NOT NULL,
    `lname` varchar(400) NOT NULL,
    `password` varchar(400) NOT NULL,
    `email` varchar(400) NOT NULL,
    `roleid` int(11) NOT NULL,
    `review_count` int(11) NOT NULL
) ENGINE=InnoDB DEFAULT CHARSET=latin1;
```

WISHLIST

```
CREATE TABLE `WISHLIST` (
    `id` int(11) NOT NULL,
    `userid` int(11) NOT NULL,
    `productid` int(11) NOT NULL,
    `deletedyn` varchar(1) NOT NULL
) ENGINE=InnoDB DEFAULT CHARSET=latin1;
```

INDEXES/REFERENTIAL INTEGRITY

BRAND

```
ALTER TABLE `brand`
 ADD PRIMARY KEY (`id`),
 ADD UNIQUE KEY `name` (`name`);
```

CATEGORY

```
ALTER TABLE `category`
 ADD PRIMARY KEY (`id`),
 ADD UNIQUE KEY `name` (`name`);
```

FEATURES

```
ALTER TABLE `features`
 ADD PRIMARY KEY (`id`),
 ADD UNIQUE KEY `name` (`name`);
```

PRODUCT

```
ALTER TABLE `product`
 ADD PRIMARY KEY (`id`),
 ADD KEY `brandid` (`brandid`),
 ADD KEY `categoryid` (`categoryid`),
 ADD KEY `subcategoryid` (`subcategoryid`);
```

PRODUCT_FEATURES

```
ALTER TABLE `product_features`
 ADD PRIMARY KEY (`id`),
 ADD KEY `featureid` (`featureid`),
 ADD KEY `productid` (`productid`);
```

REVIEW

```
ALTER TABLE `review`
 ADD PRIMARY KEY (`id`),
 ADD KEY `userid` (`userid`),
 ADD KEY `productid_2` (`productid`),
 ADD KEY `userid_2` (`userid`);
```

ROLES

```
ALTER TABLE `roles`
 ADD PRIMARY KEY (`id`);
```

SUBCATEGORY

```
ALTER TABLE `subcategory`
 ADD PRIMARY KEY (`id`),
 ADD KEY `categoryid` (`categoryid`);
```

USERS

```
ALTER TABLE `users`
 ADD PRIMARY KEY (`id`),
 ADD KEY `roleid` (`roleid`);
```

WISHLIST

```
ALTER TABLE `wishlist`
 ADD PRIMARY KEY (`id`),
 ADD KEY `productid` (`productid`),
 ADD KEY `userid` (`userid`);
```

AUTO_INCREMENT for dumped tables

BRAND

```
ALTER TABLE `brand`
 MODIFY `id` int(11) NOT NULL AUTO_INCREMENT, AUTO_INCREMENT=43;
```

CATEGORY

```
ALTER TABLE `category`
 MODIFY `id` int(11) NOT NULL AUTO_INCREMENT, AUTO_INCREMENT=11;
```

FEATURES

```
ALTER TABLE `features`
 MODIFY `id` int(11) NOT NULL AUTO_INCREMENT, AUTO_INCREMENT=43;
```

PRODUCT

```
ALTER TABLE `product`
 MODIFY `id` int(11) NOT NULL AUTO_INCREMENT, AUTO_INCREMENT=45;
```

PRODUCT_FEATURES

```
ALTER TABLE `product_features`
 MODIFY `id` int(11) NOT NULL AUTO_INCREMENT, AUTO_INCREMENT=59;
```

REVIEW

```
ALTER TABLE `review`
 MODIFY `id` int(11) NOT NULL AUTO_INCREMENT, AUTO_INCREMENT=30;
```

ROLES

```
ALTER TABLE `roles`
 MODIFY `id` int(11) NOT NULL AUTO_INCREMENT, AUTO_INCREMENT=3;
```

SUBCATEGORY

```
ALTER TABLE `subcategory`
 MODIFY `id` int(11) NOT NULL AUTO_INCREMENT, AUTO_INCREMENT=48;
```

USERS

```
ALTER TABLE `users`
 MODIFY `id` int(11) NOT NULL AUTO_INCREMENT, AUTO_INCREMENT=17;
```

WISHLIST

```
ALTER TABLE `wishlist`
 MODIFY `id` int(11) NOT NULL AUTO_INCREMENT, AUTO_INCREMENT=18;
```

Constraints for dumped tables

PRODUCT

```
ALTER TABLE `product`
 ADD CONSTRAINT `product_ibfk_1` FOREIGN KEY (`brandid`) REFERENCES
`brand` (`id`) ON DELETE CASCADE ON UPDATE CASCADE,
 ADD CONSTRAINT `product_ibfk_2` FOREIGN KEY (`categoryid`) REFERENCES
`category` (`id`) ON DELETE CASCADE ON UPDATE CASCADE,
 ADD CONSTRAINT `product_ibfk_3` FOREIGN KEY (`subcategoryid`) REFERENCES
`subcategory` (`id`) ON DELETE CASCADE ON UPDATE CASCADE;
```

PRODUCT_FEATURES

```
ALTER TABLE `product_features`
 ADD CONSTRAINT `product_features_ibfk_1` FOREIGN KEY (`featureid`)
REFERENCES `features` (`id`) ON DELETE CASCADE ON UPDATE CASCADE,
 ADD CONSTRAINT `product_features_ibfk_2` FOREIGN KEY (`productid`)
REFERENCES `product` (`id`) ON DELETE CASCADE ON UPDATE CASCADE;
```

REVIEW

```
ALTER TABLE `review`
 ADD CONSTRAINT `review_ibfk_1` FOREIGN KEY (`productid`) REFERENCES
`product` (`id`) ON DELETE CASCADE ON UPDATE CASCADE,
 ADD CONSTRAINT `review_ibfk_2` FOREIGN KEY (`userid`) REFERENCES `users`
(`id`) ON DELETE CASCADE ON UPDATE CASCADE;
```

SUBCATEGORY

```
ALTER TABLE `subcategory`
 ADD CONSTRAINT `subcategory_ibfk_1` FOREIGN KEY (`categoryid`)
REFERENCES `category` (`id`) ON DELETE CASCADE ON UPDATE CASCADE;
```

USERS

```
ALTER TABLE `users`
 ADD CONSTRAINT `users_ibfk_1` FOREIGN KEY (`roleid`) REFERENCES `roles`
(`id`) ON DELETE CASCADE ON UPDATE CASCADE;
```

WISHLIST

```
ALTER TABLE `wishlist`
    ADD CONSTRAINT `wishlist_ibfk_1` FOREIGN KEY (`productid`) REFERENCES `product` (`id`) ON DELETE CASCADE ON UPDATE CASCADE,
    ADD CONSTRAINT `wishlist_ibfk_2` FOREIGN KEY (`userid`) REFERENCES `users` (`id`) ON DELETE CASCADE ON UPDATE CASCADE;
```
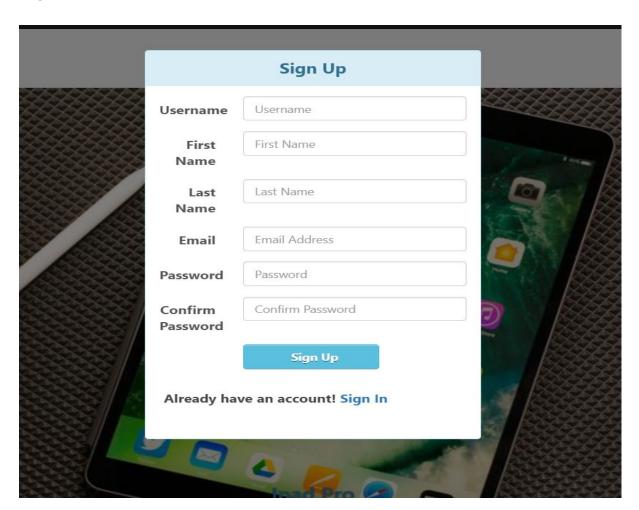
Languages / Frameworks used
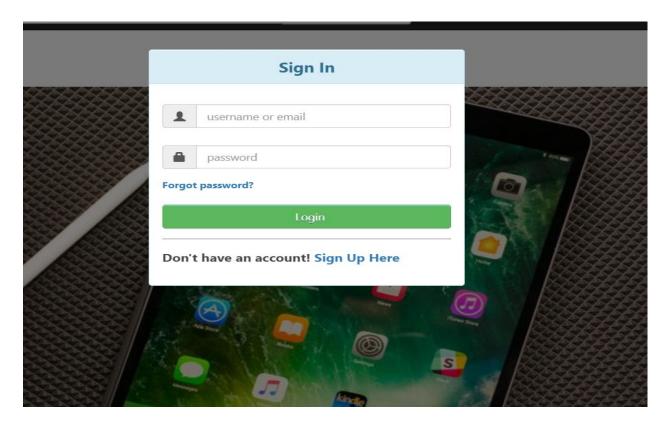
Client Side : HTML, CSS, AJAX, JQuery
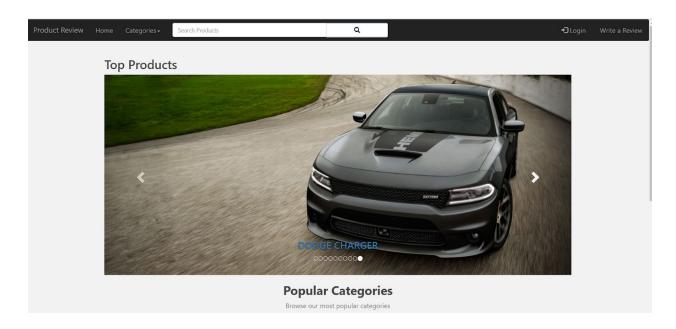
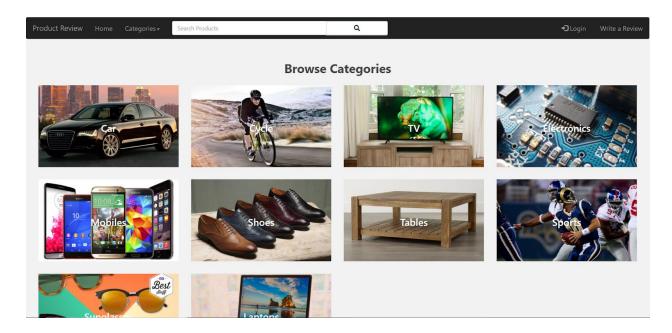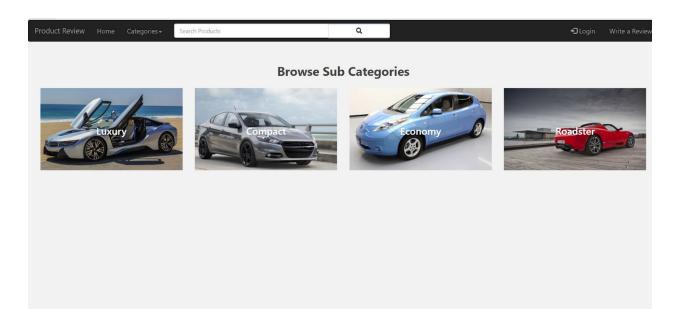Server Side : PHP, MySQL

Screenshots

Register

Login:

Home:
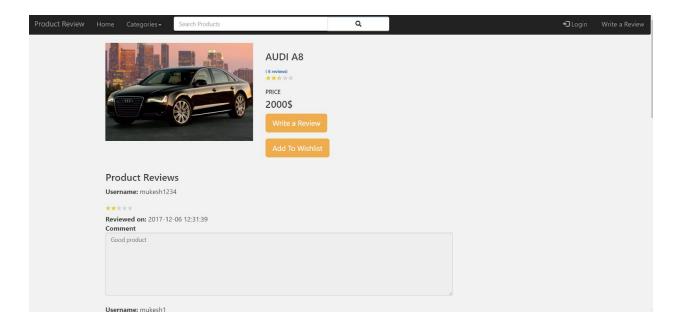
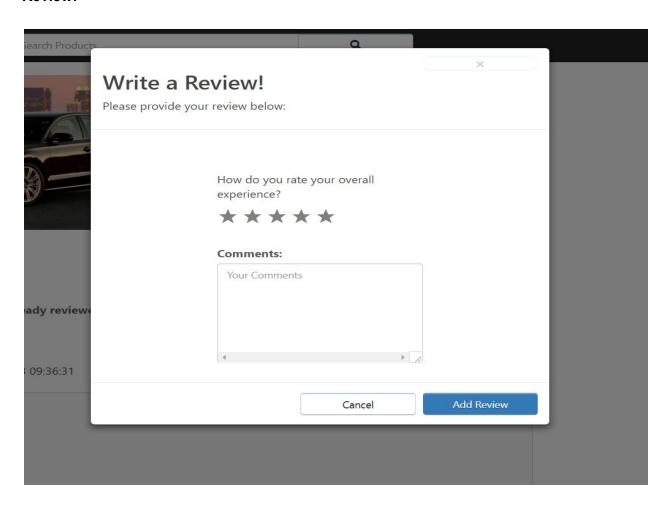**Category:**

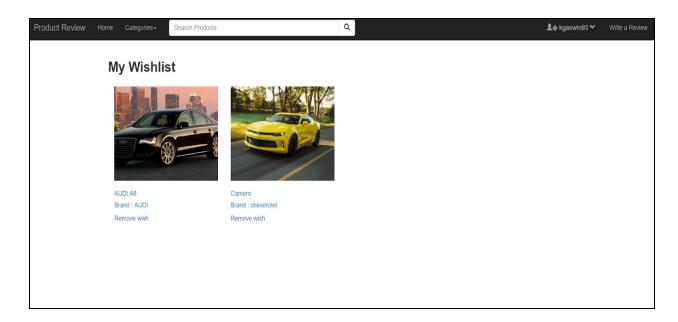
Subcategory:

Productlist:

Productdetail:

Review:

Wishlist:

Work Division

Development work was equally shared by both of us for client and server side scripting. To be specific,

AXK175831 - Home page, categories page, subcategories page, admin functionalities, pagination.

MXG165930 - Product list page, product detail page, sign-in and sign-up modals, filter options, review page, wish list and reviews.