Description and Working Procedure Report

1800 8649

Servername: localhost; Username: root; Password: ; DBname: electronic_company

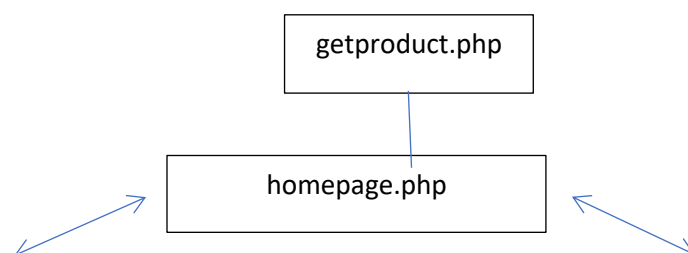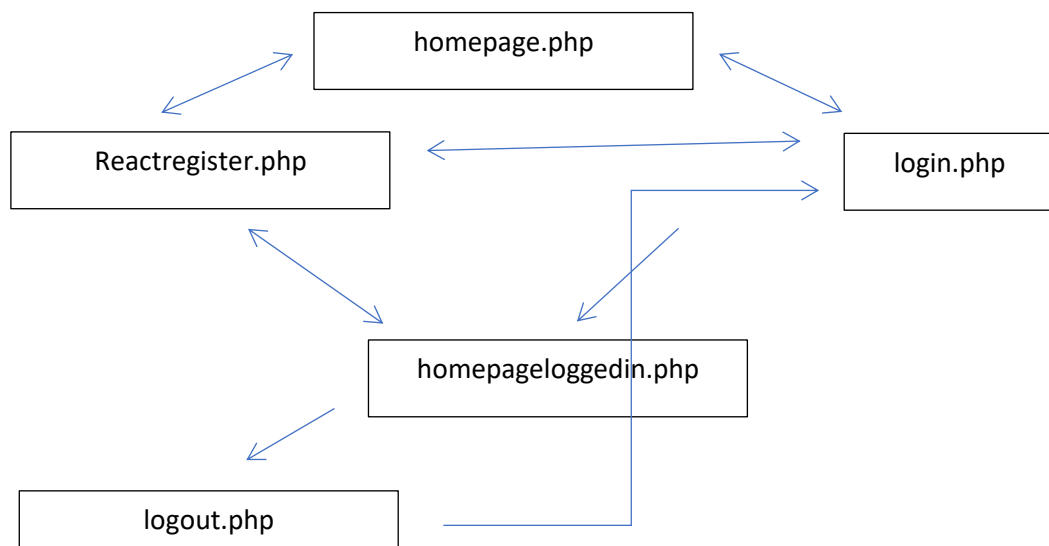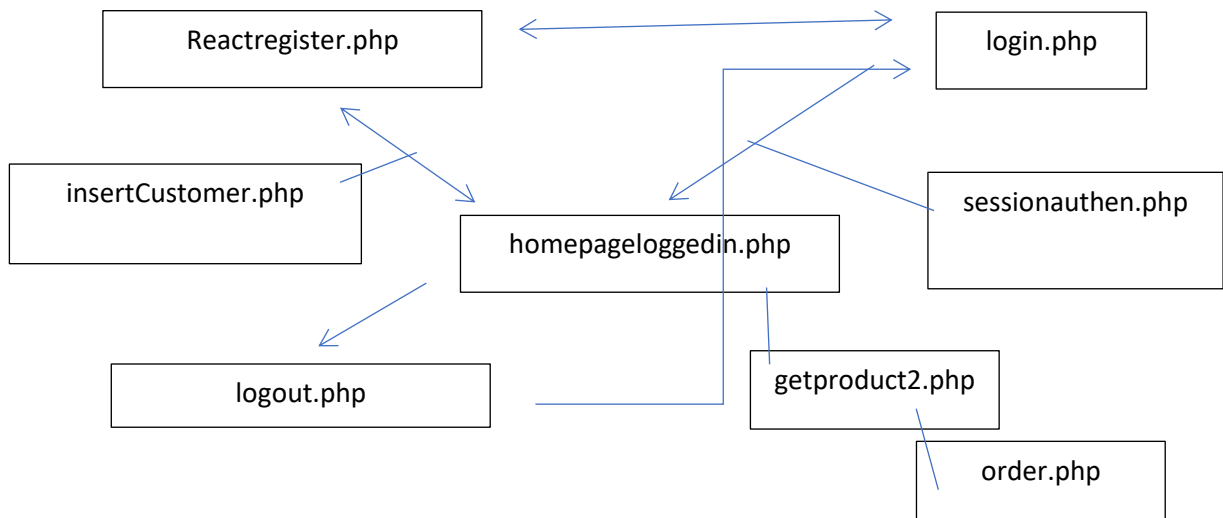Customer username: 123456789; Customer password: abc123!

No. of words: 1485

http://localhost/18008649/

Task	Comments
1. Electronics company webpage	The navigation was fine. It was simply a dark navigation bar. It included a few links, with the logo linking to the homepage, so when clicked on, returns to the homepage. Other pages like the register and login pages are also accessible via the navigation links on the nav bar. Getting the divs for the main section to be centred was hard but it was slightly aligned to the centre. It took a lot of effort to get two populated dropdowns to be populated by the database/each other, but these were done with some efficient code. Once this was done, the table was easier to do with each option calling a different row from the database.
2. Submit SQL files to generate the tables in the electronics company	It was difficult to get it to work originally, because the dropdown menu was not properly linked to the getproduct.php file. However, once that was working, the page now displays all products by companies, all from the database. Each product by a company is displayed on a new row.
3. Login page	The login page form coding was fine but accessing the database to check if a user existed was challenging. A new homepage was made, so if the user logs in, it takes them to the

	new page, which has buttons that allow for items to be bought, as well as logout. This is all done with the use of session variables, which were used in another page.
4. Registration page	The registration page was a similar situation for login page. A struggle was the logic to check if the email already exists in the system. Unfortunately, the whole php file essentially broke down, so a new one had to be made without the email checking functionality.
5. Security aspects (preventing attacks) of the Registration and Login page	Certain pages need to access the database to get data from it or put data on it. Since it can be easy to attack these pages, the php that interacts with the database is on another page, which is not available to the customer.
6. Search engine optimization aspects in the electronics company webpage	The website was to be minimalistic, so for mobiles especially, it was not clustered with random objects, allowing for easy viewing. In addition, the main webpage has a meaningful title and meta tags which describe what that page is about.
7. User Registration validation using React framework	The validation was different for each field. For the name, email and phone number, a regular expression was used to not allow certain characters into the field, **live.** The phone number could only have 10 digits. The password had to be above a certain length, with a digit and a special character. A message was displayed telling the user what they were doing wrong. And only after each field was valid, would the button to register be enabled.
8. Data management	a) Customer registration table: Email was a UNIQUE field; Phone number was a PRIMARY field as well.
	b) Customer ordered table: Managed to get the customer ID to populate

	order table along with other fields like email, phone, etc.
9. RESTful webservice for the electronics company Manager	Unable to complete.
10. Any other information (remarks)	Website was designed using the bootstrap 4 framework for the layout.

Introduction

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homepage.php
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```
Reactregister.php          login.php
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```
homepageloggedin.php
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```
logout.php
```

```
getproduct.php
```

```
homepage.php
```

This project is a website for displaying electronic products. Users can register/login and logout and view these products.

This website project was made using HTML and CSS (bootstrap), JavaScript (AJAX) and REACT. HTML was the main code, CSS was used for the styling of most of the pages and the layout, AJAX was used for getting the data from tables from the database, asynchronously, and REACT was used to validate the register form, live, as the user types. PHP was used throughout to run queries simply to get data from the database or to handle session variables.

The arrows show the direction a user goes when navigating the website. This is either via clicking on links, or purely by submitting something, and the page automatically switching to another one. The trapezium means this page is never actually visited, but it goes through that page to the next page.

Developed Architecture, Implementation Details and System Inputs and Outputs:

The starting webpage, homepage.php, has the navigation bar at the top. The logo allows return to the homepage, and the register and login buttons do what a user would expect; take them to their respective pages.
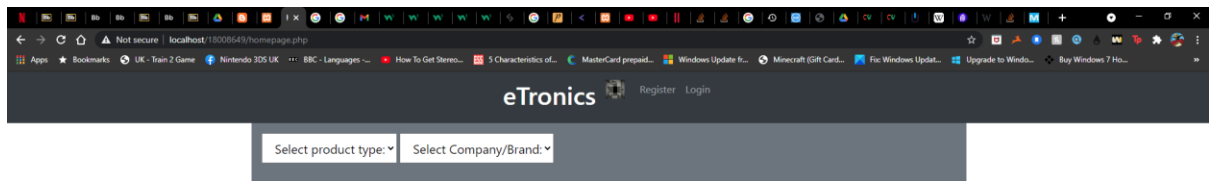
Figure 1:Main webpage.

Clicking the dropdowns will open a list of the different companies. Clicking on one of those will run a query which gets product and respective information from the database and displays in a table. This query is run on the getproduct.php page, in which a 'SELECT' query took the 'Company' from the mobile_phones table (which has the products).
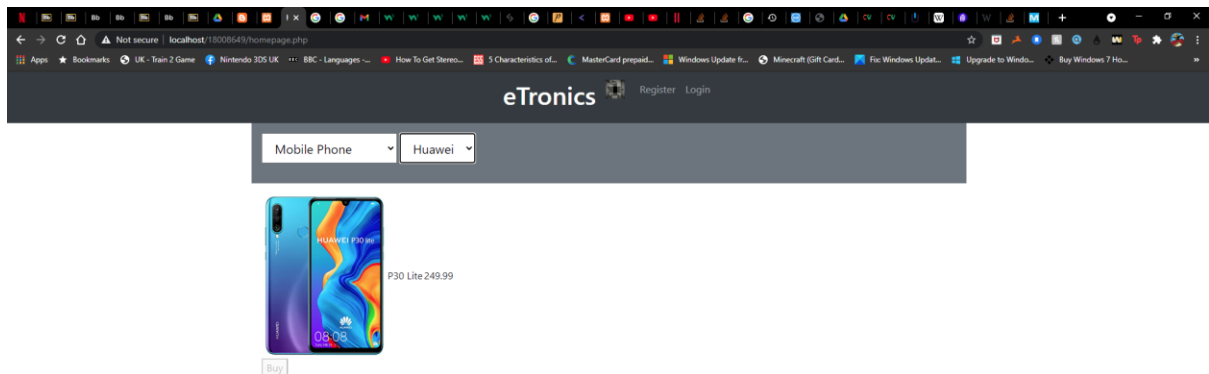

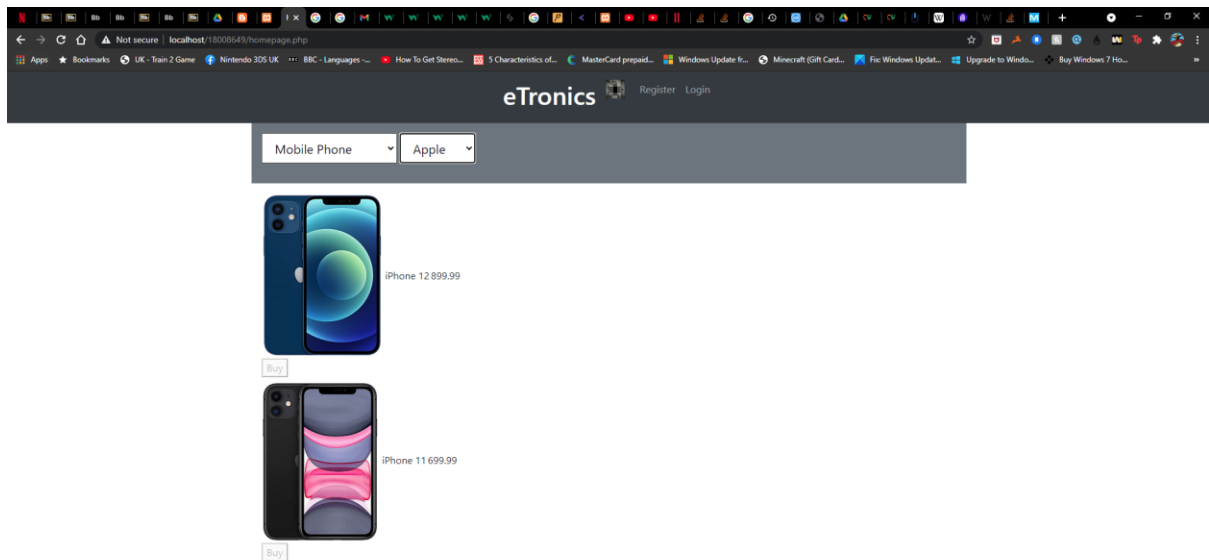*Figure 2: Main webpage when a company is selected.*

Figure 3: Main webpage when the Apple mobile company is selected.

A table is used to display this data, so it is a bit more structured.

A user may then choose to register, or login. These are buttons in the navigation bar. When clicking register, this page is opened:
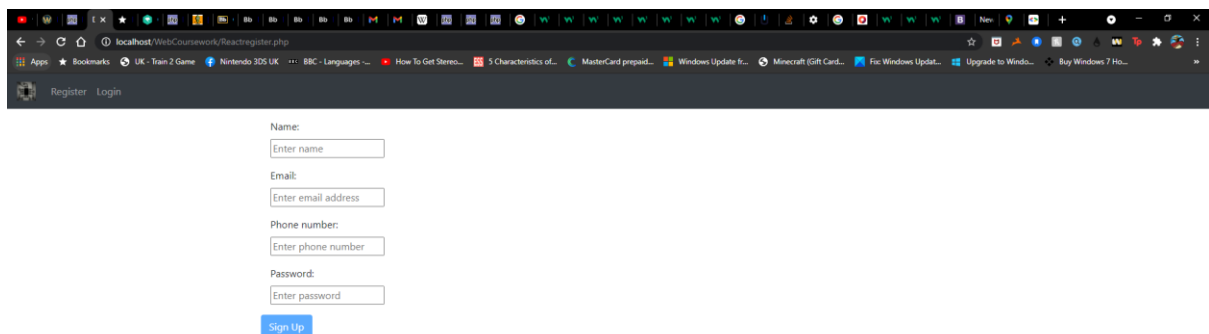

Figure 4: Register page.

Here there are four fields: Name, Email, Phone number and Password, as well as a button that allows the user to register. However, the button is slightly greyed out, signifying that it is disabled. Only once each field has been filled, and the data in each field is valid, can the user click the button.

Name:

Name can only have letters, and particular characters

42ad

Email:

Invalid email format

54WSA

Phone number:

Invalid phone number format, must be only numbers

FFFFFAAAAAAF

Password:

Password must be at least 6 characters long

•••

Sign Up

Figure 5: Example of REACT validation.

Name:

Name can only have letters, and particular characters

42ad

Email:

Invalid email format

54WSA

Phone number:

Must be 10 digits

1984498

Password:

Password must contain a digit

•••••••••

Sign Up

Figure 6: Another example of REACT validation.

Figure 6: Register page which is valid.

Each field has different validation. The 'Name' field must only have letters and spaces, the 'Email' field must have an '@' symbol and a '.', the 'Phone Number' field can only be 10 digits, and only numbers can be allowed. The password field must be above a certain number of characters, with certain special characters in it.

The field works via states, and if the state of a field being valid is false, the user would not be able to submit, and all the fields must in the state of 'true', for submitting to be allowed.

If everything goes well, the user is then taken to the login page. Of course, the user can always go to this page via the navigation bar.

The user must enter their phone number and password into the form here. If the user exists, they would have logged in, and therefore the user will be able to now see the order button, and in addition, they can also logout.

Figure 7: Login page with a customer's details.

Figure 8: Details from database.

This again uses a php file (sessionauthen.php). Selection from the table 'customers' is queried, selecting *specifically* the phone number. After checking if the user is logged in, the session variable is started, and the user is welcomed to the homepage.
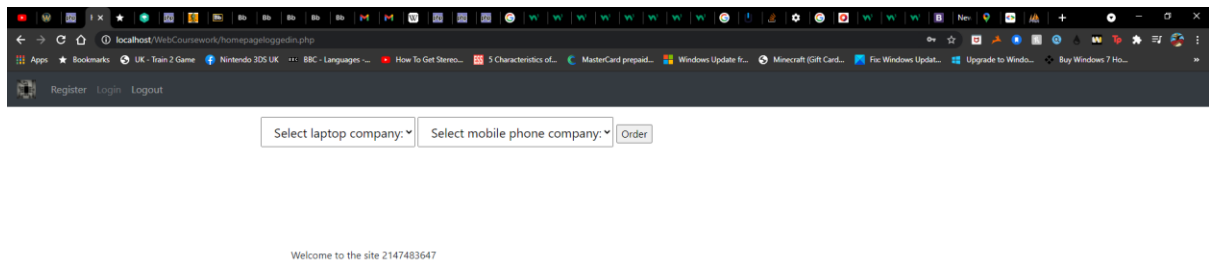
Figure 9: Main webpage once the user is logged in.

Now at this point a message is displayed with the welcome, as well as the login button becoming unavailable and the order button now being unavailable.

norder.php takes values including product details like the name and price, and customer info, and inserts it as a new row into the order table. This is called when the order button is clicked in the product table on the main webpage.

Figure 10: Inserted record.

Suggested Improvements and Conclusions:

A slightly more interesting colour scheme could have been used, and in general, more colours/ways of showing when things are clicked (for better UI elements) would have made the website more accessible. In the future, the email checking feature would allow for better validation, as well as tighter security in terms of checking for xss injections and the like. However, with the current design of the site, there are aspects of these which are evident in the site.

References:

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