PROJECT PROBLEM STATEMENT

Through the six week of the training program, you will be working on a project website which is a simple e-commerce website for a e-store. The website will consist of 8 HTML pages. You may choose to work on any other website, but please ensure that it has the same functionality. For example, you can make an e-commerce website that sells shoes instead of mobiles. For this project, we will periodically release problem statements with tasks and deadlines. After the deadline, we will release solutions for the tasks. Note that these solutions will be for this simple e-commerce website. Therefore, do not choose a project website very different from this one. This tutorial describes the look and functionality of the website. The website will consist of HTML, CSS, BOOTSTRAP, PHP and MYSQLI code. The HTML, CSS and BOOTSTRAP part of your code decides how your website will look, while the PHP and MySQL part decides how it will function. You will have 3 major assignments during this program. They will be structured as follows:

- 1) HTML, CSS AND BOOTSTRAP Exercise: where you will design the look of each page of your website.
- 2) **PHP & MySQLi Exercise:** where you will add functionality to the website. This will allow you to allow users to register and buy flowers on the website.
- 3) Advanced PHP Exercise: where you will add advanced features, such as validations and security to the website.

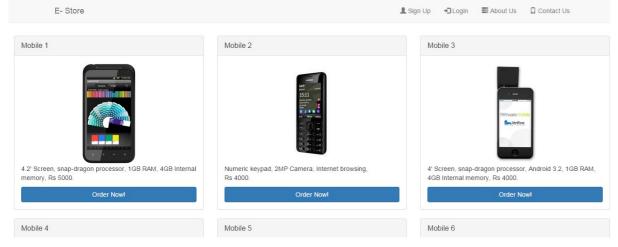
The following tutorial describes completely the functionality of the website from the user's (who wants to buy items) point of view. The 8 main pages that need to be designed are:

- 1) index.php
- 2) about.php
- 3) contact.php
- 4) signup.php
- 5) home.php
- 6) confirm.php
- 7) success.php
- 8) settings.php

Apart from these pages, we will need to make some small pages which will have only PHP code, which we will discuss later before the second assignment.

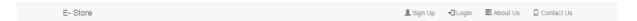
INDEX PAGE (index.php)

The index page is usually the first page that a user visits on any website. When a user first visits the items store website, he will see the following page.



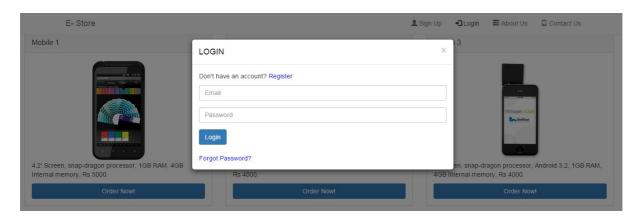
The index page will be the landing page of the website i.e. the page which a user will first see when he/she opens the website. The page will be divided into three parts

• the navbar (fixed navbar at the top)



<div class="navbar navbar-default navbar-fixed-top" class will be used. It will be a collapsing navbar.</pre>

- Sign Up will contain the link to the signup.php page.
- About Us will contain the link to the about.php page.
- Contact Us will contain the link to the contact.php page.
- For login, the modal will be created.



Login link in the navbar will trigger the modal.



Body will contain the grid system with two rows and three panels will be made in each row.

• the footer (grid system and the links.)



It is not included in the container-fluid and given a manual css with width:100%. This section will contain one row divided into three columns.

Information, My Account and Contact Us are text but beneath them all are links except the number below the contact us. Login link below the My Account will again trigger the modal.

ABOUT US PAGE

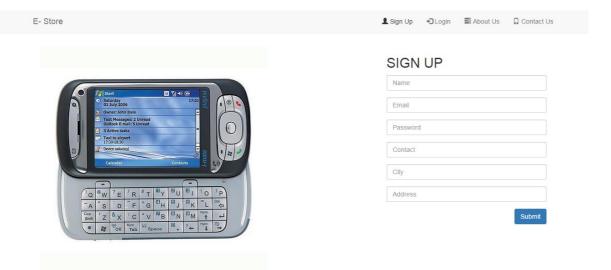
The navbar and the footer will remain same. In the body section, one row will be created which will have class container inside to make the row responsive and helps in the design of the web page. This row will be divided into 3 columns which will contain one panel each. The content can be decided by the student.



The navbar and the footer will remain same. In the body section, two rows will be created and both the rows will be divided into two columns. First row will contain live support section and the image. Second row will contain the contact us form and company information.

SIGNUP PAGE (signup.php)

On the signup page, new users can register using the 'signup' form and create accounts, while existing users can login using the 'login' modal.



As you can see, the signup form has six fields i.e. 'name', 'email', 'password', 'contact', 'address' and 'city'. What you cannot see is the backend or the functionality of the form, which comprises of form validation and form injection.

FORM VALIDATION

In order that the data entered by any user is considered as a valid input, we have to force the data to obey certain rules. We have listed the rules for this signup form as follows:

- 1) Each user on the website will be uniquely identified by his email id, so we must to ensure that no two users have the same email ids.
- 2) We must ensure that the user enters a valid e-mail address and not just any string.
- 3) We must ensure that a valid ten digit mobile number is entered by the user.
- 4) We must ensure that the user can submit the form only after he/she fills in all the fields.

The other fields i.e. Name, Password, City and Address can take any value. If a user enters valid data, he is logged in and is taken to the home page.

Using Form Validation, we check whether the user has entered the correct values. If the user enters an email which is invalid, he/she is shown a message that the email entered is invalid. Similarly, If the user enters an email address which has already been registered, a message is shown telling him/her that this email address is already registered. If the user enters a contact number which is not a valid 10 digit mobile number, a message is shown that the contact number is invalid. The user may enter any value in the remaining fields.

FORM INJECTION

When you allow a user to enter an input on your website, there is always the risk that a hacker may try to compromise your server or website. This can be done by entering a PHP code instead of just plain text in the input field of the form. Form injection is a basic security feature which makes it very difficult for hackers to do this. Using form injection, we identify whether a user is trying to pass a PHP code in the input field of a form. This is basic security against potential hackers.

LOGIN MODAL

In the login form, there are two fields, one is email address and the other is password. When the user enters his credentials, the website checks the database for the email and password. If both are found corresponding to the same user on the database, the user is logged in.

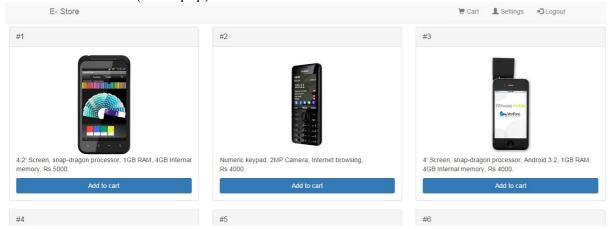
Again, we use form validation and form injection just as we did it in the signup form. If a user enters an email id which is not registered in the database, he is not allowed to login and an error message is displayed. If the email id is registered and the user enters a wrong password, an error message is shown indicating that the password entered is incorrect. If he enters the correct email address and password, he is logged in and is redirected to the home page.

We also have a 'forgot password' link, which takes the user to a page where he can enter his email address. Upon doing so, a new password is set for him and emailed to his email address.

An additional safety feature being implemented in these forms are that the passwords entered by the users are encrypted. Therefore, even if the database is compromised by a hacker, he/she cannot determine the password. For this, we will use an encryption technique that you will be learning during the program.

Once the user's input is validated, the data entered by him is accepted and stored in a database (MySQLi is used for this purpose). The user is redirected to the home page, where he can browse and order items.

THE HOME PAGE (home.php)



The navbar will contain cart, settings and logout option. Settings will link to the settings page. Body will be same as of index page except the content inside the panel will change. The buttons will now show text Add to Cart. There will be no footer in the web page.

SETTINGS PAGE (settings.php)

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E- Store		□ Cart	Settings	◆DLogout
	Change Password			
	Old Password			
	New Password			
	Re-type New Password			
	Change			

This page will contain only one row. The row will consist of one column containing a form.

Here, we again implement form validation. If the user enters different passwords in the fields 'New Password' and 'Retype New Password', a message is shown that the passwords don't match. If the user enters the incorrect 'Old Password', an error message is displayed indicating that he/she has entered the wrong password. If the user fills the three fields correctly, his/her password is updated. The form uses form injection to reduce security threats.

CART PAGE (cart.php)

E-	- Store			١	Cart	Settings	→DLogout			
		Item Number	Price							

The body of the web page will contain single row and a table which will have headings as Item number and price. The rest will be generated dynamically, so in this module the table will contain only the table headings.

SUCCESS PAGE (success.php)



The success page informs the user that his/her order has been accepted and his items would be delivered shortly. Also, there is a link to the home page where the user can purchase more items.

EXTRA FEATURES

We have added some extra features on the website. Unless the user is logged in, he cannot go to the home page, the confirm page, the success page or the settings page. When he/she isn't logged in and he tries to navigate to the above pages, he/she if redirected to the index page of the website. In this case, clicking on the logo from any page redirects the user to the index page.

Once the user is logged in, he/she cannot navigate to either the index page or the login page and is redirected to the home page. In this case, clicking on the logo from any page redirects the user to the home page.