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**Module title:** Web Development and Deployment

**Assignment title:** Group Project

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**Declaration:** “I hereby declare that the information provided herein was completed by me, and is true to the best of my knowledge”

**Statement of how I contributed to the project and how the web application works:**

How I contributed to the project:

I began my contribution to this project by setting up the basic HTML file structures for the web application. Along with this I developed the CSS to style and format these HTML files, these HTML files were later changed to PHP to run PHP code. While creating all the initial HTML files I organised the files into separate folders to neaten up the Assignment directory. I developed the Bootstrap image carousel on the homepage to automatically go through the images specified. This image carousel also allows the user to select specific pictures to look at if they wish before recommencing the image cycle. I also developed the user signup, log in and profile pages. For the signup page I used a form to gather the users inputted details. Once all the fields were filled I used jQuery to validate the form to ensure that all field, for example name, email or password, were of the correct format. I also used the jQuery date picker tool to allow the user to select their date of birth. Once all the inputted information was validated as correct the users information is inserted into a database table for user details and they are brought to their new profile page. In the signup page I also ensured that no users can have the same email address by making an email address unique to each user. For the login page I used a similar form structure, with fewer fields, to gather the user input. Once again their information is first validated using jQuery to ensure all fields are of the correct format. Once they are of the correct format I compared the data entered by the user to the data in the databases user table. If the users information is in the database they are logged in and brought to their profile page. If the user has never signed up before or their details are incorrect they are kept on the login page. Lastly I developed the profile page so that only a logged in user could access the profile page. If a user is not logged in and they try to access the profile page they will be redirected to the login page. Within this profile page I developed the ability to upload a profile picture, a sign out, delete profile and reset password functionality. A user can upload an image from their computer to their profile on the webpage and if they have previously uploaded an image the image file path will be stored in the database to be loaded anytime the user logins. To do this I used and altered code from w3schools about image uploads. I also developed the sign out functionality using sessions to remove users data from the web app to prevents other users from accessing their profile. The delete profile button functionality from the profile page removes the users information from the database and redirects them to the signup page. Lastly on the profile page I developed a way to allow the user to reset their password. This functionality validates the new passwords format and updates the users information in the database. Lastly I included error checking for all of the above developments.

How the web application works:

**Home Page:**

The home page is a basic html web page structure using CSS for styling. It includes a banner picture at the top, followed by a navigation menu bar and then the body of the html page, as well as a footer. This format is the same for all pages in the web application. The home page contains some basic information about the site as well as an image placed to the right of the text. Underneath this and above the footer is a Bootstrap carousel of images loaded from the images files of the web application. This image carousel automatically goes through the image files stored in the web app. This image carousel also allows the user to select specific pictures to look at if they wish before recommencing the image cycle.

**Login Page:**

On this page the user is shown a form like layout with which they input their login details. Once they submit the form the details they have entered are validated to make sure that all the fields are completed and are formatted correctly. If their details do not pass the form validation then the user is informed of this and is kept on the login page. If the users details are validated and correct their details are then compared to those in the database. Again if their details are not in the database, because the user previously deleted their information or has never signed up before, they will be kept in the login page. Lastly if their details are found in the database the user is brought to their profile page.

**Profile Page:**

A user can only access their profile page if they have logged in. This is done using sessions. If they are not logged in they are directed to the login page if they click on the profile tab in the menu bar. If a user is logged in they can do the following on their profile page: upload a picture, sign out, delete their profile and reset their password. The user is able to upload a picture as a profile picture to their profile by browsing their computer and storing the image file location on the web app in the database. If the user has previously uploaded an image, then the image will be displayed when they log in from the database. As well as that, the user is able to sign out using sessions. This removes their data from the web application and prevents anybody else from logging into their profile or accessing their information. Once signed out the user is redirected to the login page. On the profile page a user is also able to delete their profile if they wish. This will remove all their information from the database and once done they will be redirected to the signup page. Lastly on the profile page the user is able to reset their password. When doing this the new password inputted by the user is validated to ensure it follows the correct format. Once validated and correct their password information is updated in the database.

**Search Page:**

Any user can search the database for a book, regardless if they have a profile or are signed in. The database can be searched either using the authors name or the book title. If results are not found for a particular book or author then text is display to inform the user that no search results were found. If the search found entries in the database then the search results are displayed in a table format to the user. If the user wishes to add the books displayed to their favourites list of books on their profile then they must be logged in. If the user is not logged in and they select the option to add books to favourites list then they are redirected to the login page. If the user is logged in and they select this option to add to favourites then these books are added to their favourites table in the database. This table is then displayed on the users profile page.