Multi-page Survey Application

This project is to be done in groups of 3 to 6 students. All students will receive the same mark for the project.

See the course introduction slide set for instructions on setting up a group.

This project is marked out of 100 as shown in section 3.

1. Purpose:

You have received a specification from an electronics manufacturer that wishes to provide an online survey to its customers. It is your task to create this survey as a LAMP-based web application.

You will need to incorporate many aspects of a modern web application including sessions and form validation.

You will be marked on the quality and functionality of your code, your ability to follow the specification, and the rationale of your design choices.

2. Submission:

You are required to submit a single **ZIP file** named **Project1_YourGroupName.zip** containing your application's PHP files and any other files necessary to run your application (e.g. CSS or image files), to the appropriate drop box on FOL. An administrator shall be able to unzip your file into the /var/www/html directory without any modifications to your code necessary. **Other archive formats will not be accepted.** You may upload files to the FOL drop box as often as you like, only the last one uploaded will be marked.

3. Grading Notes

Any submission that produces fatal errors of any kind in any part of the submitted code will receive an automatic grade of 0. A fatal error is one that causes an application, or any part of an application to terminate abnormally.

Any submission that produces warning or notice messages that are not fatal errors will be subject to penalties based on the impact of the defect that caused the message. The penalties

will be applied to the marks for the portion of the application affected by each warning or notice message and may be partial or total loss of marks for that portion of the application.

All source files must contain a start of file comment identifying the file, its purpose and the author(s) of the file. An overall deduction of 10% of the total available marks for this project will be deducted if any source file does not contain this comment.

Students are required to use the PHP Database Objects (PDO library for all database operations. Use of any other database access library is not permitted. An automatic deduction of 50% of the total marks available for this project will be assessed for the use of any database library except PDO.

Plagiarism of any sort will not be tolerated. Academic offenses will be issued for any identified cases of plagiarism.

4. Product Specification:

The marks available for each of the specifications are shown at the beginning of each specification.

Your application must conform to the following specifications:

A. **[10 marks]** The application must be written using PHP, HTML, CSS and SQL. No other programming or scripting languages may be used.

B. **[10 marks]** A**l**l data must be stored in a MySQL database. The application must communicate with the database using the PHP PDO library. All database operations in the application must include appropriate error checking and handling functionality.

C. **[5 marks]** The provided database schema must be used. It can be directly imported into MySQL using the provided SQL script file (survey.sql). You must not change the provided database schema.

D. **[5 marks]** The initial page of the application must be named **index.php**. This page shall contain a welcome message to greet users and explain how to take the survey. The usage instructions should be 2 to 3 sentences long. Below the greeting and instructions there must be a button labelled '**Start Survey**' which will take the user to the first survey form.

E. The survey portion of the application is to be a sequence of 3 pages behaving like a wizard.

   1. **[7 marks]** The details of each field to appear on the wizard pages are shown in table 1 below. You must follow the information given in the table **exactly**.
   2. **[4 marks]** The second page of the survey contains a set of check boxes for the products purchased. One or more of these checkboxes can be selected at the same time. The number of fields on page 3 will vary according to the number of products selected on page 2. For each product selected on page 2 there must be a complete set of the fields listed in Table 1 for page 3. For example if 2 products are selected on page 2, there must be 2 satisfaction and 2 recommend fields on page 3 grouped by the product they are associated with.
   3. **[7 marks]** The contents of each field must be validated, using the information in the Constraints column of Table 1, in server-side PHP code, client-side validation is not acceptable for this project.
   4. **[6 marks** Each wizard page is to have a '**Next**' and '**Previous**' button.
   5. When Next is selected, the current form is to be submitted and all its fields are to be validated

a) **[4 marks]** If the fields contain valid data then the submitted values are to be saved in the current session and the next page of the wizard is to be displayed. The exception to this is that when Next is selected on the third page of the wizard, a summary page is to be displayed (see specification F below)

b) **[6 marks]** ELSE If the fields do not contain valid data, then the current page is to be redisplayed, including the current data, with appropriate error messages for the fields containing errors.

6. **[6 marks]** When Previous is selected, the user is to be returned to the previous wizard page (or the welcome page if previous is pressed on the first wizard page). Any data previously entered on a wizard page is to be redisplayed when that page is re-displayed. This includes all text fields, radio buttons and dropdown lists.

F. **[10 marks]** After completing the forms in the wizard, a summary page is to be displayed. This page must list all of the data entered by the user in a tabular format. Below the summary there are to be 2 buttons labelled ‘Save’ and ‘Previous’. If the Previous button is selected, the user is to be returned to page 3 of the wizard with any user entered data for that form displayed and with all of the wizard functionality described above available. If the Save button is selected, all of the information the user provided is to be saved into the database and a Thank you page is to be displayed.

G. **[10 marks]** The PHP session feature must be used to store all submitted data. The data stored in the session must be used to repopulate forms when a Previous button is pressed and as the source for saving to the database.

H. **[10 marks]** If a user navigates away from the site and then returns without closing the browser, then the user is to be returned to the page within the site where they were when they left the site.

Table 1: Field details for survey application listed by the wizard page on which each field is to appear.

HTML Element Name	**HTML Field Type**	**Question Wording**	**Constraints**	**Options/ Other Info**
PAGE 1				
fullName	Text	Full Name	- Must not be empty	
age	Text	Your Age	- Must not be empty - Must be numeric - Must be greater than 0	
student	Dropdown	Are you a student?	- The empty option cannot be selected	- An empty option (default) withno value - Yes, Full Time - Yes, Part Time - No
PAGE 2				
howPurchased	Radio	How did you complete your purchase?	- One must be selected	- Online - By phone - Mobile App - In store - By mail
purchases[]	checkbox	Which of the following did you purchase?	- At least one option must be selected	- Home Phone - Mobile Phone - Smart TV - Laptop - Desktop Computer - Tablet - Home Theater - MP3 player
PAGE 3 Note that all of the following must be repeated for each item selected in purchases[]				
satisfaction*	radio	How happy are you with this device on a scale from 1 (not satisfied) to 5 (very satisfied)?	- One option must be selected	- Numbers 1 through 5
recommend*	dropdown	Would you recommend the purchase of this device to a friend?	- The empty option cannot be selected	- An empty option (default) withno value - Yes - Maybe - No