

Client-side Web Technology: Assignments

Assignment 3

Due Date: 11:59pm 5 April, 2024 AEST

Before starting the assignments please read the [University policy](#) on assignment and submission requirements and student responsibilities.

Objectives

This assignment aligns with Course Learning Outcomes 1, 2, and 3. It assesses your ability to create a user-friendly HTML5 form that progressively displays sections based on user input, implement effective data validation and error display using JavaScript, and maintain an aesthetically pleasing design with logical question grouping, clear wording, and web accessibility standards. Also, it further evaluates your proficiency in structuring site files and formatting page contents employing proper coding style, documentation and meaningful comments in HTML, CSS, and JavaScript design.

Introduction

A travel company “Global Adventures” has decided to implement a special service for its customers—specially tailored travel packages and offers, designed specifically for each customer. These tailored offers will be based on the customer’s preferences, likes, dislikes, and budget.

To be able to take advantage of this service offered by the travel agency the customer must fill out an extensive registration form. The form must ask detailed and personel questions, such as:

- **Personal information:**
 - Travelling with Partner?
 - Travelling with Children?
 - Travelling with Friends?
 - Per person travelling forms:
 - Name
 - Birth Date
 - Occupation
 - Gender
 - Dietary Requirements (Vegetarian, Vegan, Halal, Kosher, Allergies, ...)
 - Special Needs?
 - ...
 - Preferred travel dates
 - Budget ranges
 - How active? Want to be travelling all the time?, Need rest days?, Rest days how often?, Enjoy strenuous activities? Sedentary? ...
 - ...
- **Preferred accommodation:** Hotel (5 star, 3 star, single room, shared,...), Motel, Bed & Breakfast (with bathroom, shared bathroom, ...), Airbnb, Student Accommodation, Backpacker’s Accommodation, Camping, Other ...
- **Preferred modes of travel:** Air (jet, turbo-prop, helicopter, ...), Water (cruise, sail, barge, small, large, ...), Train, Bus, Car, Bicycle, Horse, Donkey/Mule, Camel, Llama, Walking, Other, ...
- **Preferred Travel Environments** Cities, Country, Natural, Mountains, Deserts, Rain Forests, Sea, Coastal, Inland, ...
- **Preferred destinations**
 - **Africa:** Eastern, Middle, Northern, Western, Southern
 - **Asia:** India, Malaysia, Japan, North Korea, Turkmenistan, Nepal, ...

- **Central America:** Mexico, Honduras, Panama, ...
- **Europe:** Russia, Iceland, Belarus, Norway, Switzerland, United Kingdom, ...
- **European Union:** Belgium, France, Spain, Sweden, Ireland, ...
- **Middle East:** Bahrain, Iraq, Syria, Yemen, ...
- **North America:** Canada, Greenland, U.S.A, ...
- **Oceania:** Papua New Guinea, Samoa, New Zealand, Micronesia, Australia, ...
- **South America:** Bolivia, Peru, Colombia, Venezuela, ...
- **The Caribbean** Cuba, Barbados, Jamaica, Curaçao, ...

You can change these, and even simplify them a bit, so long as you do not remove any of the technical challenges.

Assignment Requirements

Design a questionnaire for “Global Adventures” and implement it as a dynamic HTML5 form. Your design should use the company [logo](#), and a white background (RGB:255,255,255).

Apart from these simple design requirements the design of the form is completely up to you.

Assignment Tasks

- The questionnaire must consist of one form only.
- The entire assignment should consist one (1) HTML/XHTML file. Ancillary JavaScript, CSS, Image, Font, etc files can be used.
- The questionnaire must not be displayed fully, but be broken into a minimum of three sections, only one section at a time being displayed.
- JavaScript is to be used to progressively display parts of the form as the user fills out the questionnaire.
- Progress through the sections of the form must be displayed to the user.
- Parts of the form must be dynamic depending on the answer from the user (for example: Travelling with partner? children? friends? How Many?) Based on the answer to a question the next part of the form must be dynamically created. (**Not** just uncovered, but dynamically created and inserted into the DOM, See the HTML template element)
- Each section must be validated before progressing to the next section. This will require JavaScript to validate the form, not HTML5. (**Note:** Ideally each input element should be validated as the user progresses to the next element but that would require far more coding than validating each section.)
- If a question in the section does not validate, that question must be flagged for the user to correct before proceeding.

The JavaScript `alert ()` function is **not** to be used to convey any information to the user. All feedback must be an integral part of the page and be dynamically displayed as required.

- The questionnaire must be usable on small and large viewports. The input elements must be usable on mobile devices.
- The minimum input element types to be used in the form are: `text`, `tel`, `email`, `checkbox`, `radio`, `date`, `button`, `submit`. Also the elements `select`, `textarea`, and `datalist`. This is the minimum list, others should also be used for good design.
- The DOM can either be manipulated directly using JavaScript, or you can choose to use jQuery instead. If jQuery is used it must be `jquery-3.5.1.min.js` which can be downloaded from the course Web site. No other library or framework is to be used.
- The `form` method attribute should be set to `POST` and the `action` attribute to `https://tau.usq.edu.au/courses/CSC8740/reflect.php`. For example:

```
<form method="POST"
action="https://tau.usq.edu.au/courses/CSC8740/reflect.php">
```

 When the form's submit button is pressed the sent data will be reflected back in a well formatted XHTML page.
- All HTML, CSS, JavaScript must be your own work. Images may be downloaded from the Internet as long as suitable attribution is incorporated unobtrusively into the page (see Assignment 2).
- The page must be properly formatted using CSS so that it looks like a page that belongs to a valid site. Feel free to re-use ideas and code from your previous CSC8740 assignments or any examples found on the CSC8740 course Web site.

- You are expected to treat HTML, CSS, and JavaScript as you would for any programming language. As such, pay attention to your coding style, e.g., your code should:
 - Be simple and straight forward,
 - Be documented, e.g., comments at top of each document and on major sections,
 - Use meaningful names (variable and function names.)
 - Have an appropriate code layout, e.g., consistent indentation and use of white space in all source files,
 - strive for modularity, for reuse and visibility.

Marking Scheme

Working HTML5/XHTML5 & CSS, use of required input elements.	4
Data validation and error display.	5
Dynamic section of questionnaire, paging and progress reporting	4
Overall design, question grouping and clarity of wording, and usability on mobile and desktop devices.	5
HTML/CSS/JavaScript structured with comments.	2
TOTAL	20

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