FOUNDATION CODING

SUMMATIVE ASSESSMENT

Learning outcomes

Successfully completing this project will show you are able to:

- Debug JavaScript code to eliminate errors
- Include a Javascript library to meet project requirements
- Extend a JS library with a third party plugin
- Use a range of production tools to assist in the development of a project
- Use JavaScript to manipulate the DOM
- Implement functionality of UI components with appropriate raw JavaScript and/or a library
- Write code consistently following a code style guide
- Quality assure own code by testing against industry standards
- Define deliverables based on use cases prior to production
- Write an appropriate proposal for a web project
- Set critical deadline milestones for project during the planning stage, and analyse variations from this when signing off the project.

Overview

Your task is to create a single page web application based on a Project Scenario on the next page. The application should allow users to input information, validate the information, display data in an appropriate format based on the information entered and provide meaningful feedback when validation has failed or passed.

Requirements

1. Document and plan your production by writing a website proposal that defines what you will produce. Your proposal should adhere to Yoobee Best Practices, and in particular it must include:
   - a use case diagram that shows who the users of the application are and how they interact with it
   - a set of deliverables to be developed derived from the use cases
   - a timeline or burndown chart for development of each of the deliverables with deadlines identified
   - a Javascript Style Guide and include it in your planning documentation prior to development
2. Use a Javascript library and third party plug-ins to create a functional interface that meets the client's needs.
3. You must do the following to quality assure your code:
   - adhere to your Javascript Style Guide
   - use browser developer tools to debug
   - use a Javascript linting tool
   - use appropriate features of an industry standard text editor or IDE
4. A separate document must be submitted with your project that
   - analyses how well you adhered to your timeline and how improvements could be made
   - lists the production tools that were used during development

Deliverables

- Documentation in pdf format
- A Javascript style guide
- Zip file containing the root directory of your project
- Presentation file or link
- A separate text document on how well you adhered to your timeline and outlining improvements that could be made, and includes a list of production tools that were used during development

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Project scenarios

Overview

Tourism New Zealand works with the tourism industry to positively promote New Zealand internationally. They have a new campaign that is aimed at visitors staying for short periods, booking their own accommodation and arranging their own transport.

Your task is to create a single page web application that allows users to input information, validate the information and provide meaningful feedback when validation has failed or passed. Display accommodation or transport options to the user based the information entered. Calculate and display either accommodation or transport costs to the user.

Choose one of the following:

Transport

The first part of the user experience involves visitors to a specially designed site inputting information and being shown transport options based on the number of people in their party and the length of time they intend to be traveling.

The second part involves calculating the transport costs including fuel consumption based on the type of vehicle chosen and the distance of a user defined route.

Accommodation

The first part of the user experience involves visitors to a specially designed site inputting information and being shown accommodation options and related details based on the number of people in their party and the length of time they intend to be traveling.

The second part involves displaying meal options for the chosen accomodation option. You will need to create the data for the meal options.

Data

Transport

- **Motorbike 1 person – $109/day, min 1 day, max 5 days, 3.7l/100km**
- **Small car 1-2 people – $129/day - min 1 day, max 10 days, 8.5l/100km**
- **Large car 1-5 people – $144/day - min 3 days, max 10 days, 9.7l/100km**
- **Motor home 2-6 people – $200/day - min 2 days, max 15 days, 17l/100km**

Accommodation

- **Hotel 1-2 people – $157/night – min 1 night, max 5 nights**
- **Hostel 1-6 people – $30/night – min 1 night, max 10 nights**
- **Motel 2-4 people $90/night – min 3 nights, max 10 nights**
- **House 1-4 people $240/night – min 2 nights, max 15 nights**