HTML 5 & JavaScript: Design Document.

Project Team.

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Project Design.

During the design stage of the project we chose between the different variables, types, objects, methods and functions that were needed and decided on the following elements, this list however may change as we could implement changes to this specification or remove items if they are deemed redundant.

Variables and Types.

Booking type:

* accommodationType: A String: Will hold the value selected from the accommodation list box.
* arrivalDate: A Date: Will hold the arrival date.
* departureDate: A Date: Will hold the arrival date.
* numberOfAdults: An integer: Will store the value from the adultsRangeValue.
* numberOfchildren: An integer: Will store the value from the childrenRangeValue.
* customersName: A String: Will hold the customer’s name.
* customersAddress: A String: Will hold the customer’s Address not including the postcode.
* customersPostcode: A String: Will hold the customer’s postcode.
* customersEmailAddress: A String: Will hold the customer’s email address.
* TotalCost: A Float: Will store the total cost calculated from number of nights \* cost of accommodation.

List Boxes, Sliders and Date selection boxes.

* accomadationList: A Listbox: Will hold the accommodation selections below.

(Tent pitch, Campervan pitch, Caravan pitch, Static caravan, Cabin).

* PlacesToVisitList: A Listbox: Will hold the places to visit sections below.

(Swimming, Climbing, Cycling, Archery, Falconry).

* adultsValue: A Range Slider: Holds the value from the adults range slider 0 - 9.
* childValue: A Range Slider: Holds the value from the children’s range slider 0 - 9.
* arrivalDateValue: A date selection box: holds the date value selected.
* departureDate: A date selection box: holds the date value selected.

Buttons.

* confirmBookingButton: a button to confirm the booking.
* cancelBookingButton: a button to cancel the booking.
* retrieveBookingButton: a button to retrieve the booking.

Arrays.

* Bookings[]: array to store bookings.
* Comments[]: array to store comments
* photos[]: array to store images.

Views.

* photoView: display pictures of the campsite.
* MapView: display a google map of the campsite.

Strings and rows:

* comments: a string for the comments entered on the HTML page.
* commentsRow: to display rows of comments.
* bookingRow: to display bookings.
* nameField: store the customer’s name entered on the HTML page.
* addressField: store the customer’s address entered on the HTML page.
* postcodeField: store the customer’s address entered on the HTML page.
* phoneField store the customer’s phone number entered on the HTML page.,
* emailField store the customer’s email address entered on the HTML page.,
* totalCostField: To display the total cost on the HTML page.

Integers:

* tentPitchCost: this will be set to default value of 7. To represent £7 per night.
* caravanPitchCost: this will be set to default value of 12. To represent £12 per night.
* campervanPitchCost: this will be set to default value of 12. To represent £12 per night.
* staticCaravanCost: this will be set to default value of 25. To represent £25 per night.
* cabinCost: this will be set to default value of 35. To represent £35 per night.
* numberOfNights: to store the total number of nights calculated from the arrivalDate and the departureDate.
* accommodationCost: to store the relevant cost per night of the accommodation selected.
* totalCost: to store the value calculated from the accommodationCost and the number numberOfNights.

Methods and functions.

Booking prototypes:

* getArrivalDate(): returns the arrival date.
* getDepartureDate(): returns the departure date.
* SetArrivalDate: to set the date if a booking has been changed.
* SetDepartureDate: to set the date if a booking has been changed.
* ToString(): to return a string of the booking.
* BookingRow(): return a formatted html row of the data.
* WhenDue(): return the number of milliseconds until a booking is due, this will be used for working out when to email the customer a reminder.

Other Functions.

* addBooking(): adds a booking to the booking array.
* cancelBooking(): removes a booking from the booking array.
* showTable(array[]): pass an array and it will display them in table format.
* clear(): clears all data fields on the page.
* showLocation(): takes index from placesToVisitList and shows them using geolocation.
* today(): sets the date boxes to the current day.
* checkDates(): make sure dates entered are valid.
* showImages(): shows the images
* addButton(): to validate entry then add a booking to the booking array.
* cancelButton(): to cancel the currently displayed booking and remove it from the array.
* saveBooking(): to save a booking to local storage.
* loadBooking(): to load bookings from local storage.
* calculateCost(numberOfNights , accommodationCost): to calculate the total costs of stay
* setInterval: to provide a timer to update costs and check a booking date is due.
* isDue(): checks to see if a booking is due.

Possible enhancements.

We feel as a team that there are a few other enhancements that may be possible but could be out of the scope of current knowledge or just because of time limitations, this is a list of these additions we would like to see.

* An email could be sent to the user confirming the booking and a reminder sent 48hrs before.
* A video element to show videos of the caravan park.
* The ability to also book activities that are in the list.
* The ability to show when the accommodation is available and allow the user to select the dates they would like to stay but not select dates already booked.
* Have an option to view the details of each accommodation type and have another part of the website display this information.
* Enhance the aesthetics of the page using CSS.