

IT5039 – Project

Task 1: UI Design

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BASD Summary:

The project from the BASD was to provide an online web-based application for a theatre company in New Zealand called The Playhouse Theatre. The application is designed to automate many of the Playhouse Theatre's current manual ticket booking processes, to provide customers with information on upcoming shows and provide details on the theatre's facilities. It will also provide The Playhouse Theatre a means of marketing to both their current customers as well as prospective customers. Ultimately, the application is designed to solve the theatre's issues of an outdated booking and advertising system. The target audience is adults who are interested in theatre, musicals, and plays.

The files for the application are in the Project folder that is in the same folder that this document is in. To start the application, open the index.html file in a **Live Server** to ensure that the React components will work.

Website Description:

When loading the website the user will be welcomed by the Homepage which features a slideshow of shows currently showing or coming soon to the playhouse Theatre. From here, the user be able to navigate to the other pages through the menu or by scrolling down the page. The styling of the site is a overall square simple theme with effective use of white space to allow the user to focus primarily on the content of the shows advertised.

The pages that will be developed in this iteration are the Homepage, Booking page, Shows Pages, About page, Contact page and a Thank you page. A page for each show will be created which will share the same CSS style file as they will be similar just with different HTML content. A thank you page will also be created for when the user submits the contact form. A small description of each page is below.

Homepage:

This page will show previews of each show through a slideshow in the hero section and then preview the shows and the theatre's facilities below. It will also contain a menu in the hero section and a second menu that scrolls down once the user has scrolled past the hero section.

Show Pages:

This will be a dedicated page for each show displaying a description of the show, the dates the shows performs at the theatre, and a video trailer.

Booking Page:

The booking page will use a form to collect user data and allow the customer to make an online booking. There will also be a seating diagram in the form where the user can select and remove where they would like to sit in the theatre. The data will also be used for marketing purposes. The Checkout/payment page is below the scope of this course.

About Page:

The About page will display information on the history of the Playhouse Theatre, the theatre's Playhouse Café and the Playhouse Museum.

Contact Page:

This page show the theatre's contact information that can be clicked to open new tabs, navigation or to start a phone call. There will also be a contact form which the user can submit a message for the theatre to reply to and contact the user. When the user submits the contact form the site directs them to the Thank you page.

Thank you Page:

This will be the page the user is directed to after submitting the contact form. It set an opacity to the background and display thank you message with a button to return to the Homepage.

Website Features:

Below are some of the features that will be used in the website.

Javascript: Both the booking and Contact forms will use Javascript validation, event handlers and DOM manipulation to maximise user experience by guiding the user with constraints and reduce possible user errors. The "required" attribute will be used in the inputs to ensure sufficient data is collected.

Pop-up: When the user visits the home page for the first time, a pop up will appear 5 seconds after the site has loaded to offer the user to subscribe to the Playhouse newsletter. This will include a small form for the user to submit their email address or they can close the pop-up. The pop-up will not show up again by using "local storage" in Javascript.

React: React will also be used to create components to display a preview for the shows and facilities of the theatre on the Homepage.

Responsiveness: A combination of both CSS Grid and Flexbox will be used to dynamically move the content around. The website will be responsive on all devices and at all screen widths by using Media queries in the CSS files for each page and for the React components. As the website will be created desktop first, media queries max width will be used at the following sizes: 480px for mobile devices, 768px for Tablet devices and 1026px for monitor and large screens.

Image Optimisation: The website will also load at an efficient speed as all images used will be resized and compressed to reduce data size and ensure fast load times. Different sizes of the same image will also be used at different screen sizes to avoid unnecessary loading of large images by way of Media queries.

Metatags: Metatags will be used to help search engines easily find and identify the site for users. This will include keywords, a description and the author.

Accessibility: Aria labels will be used in non-textual elements to help users using screen readers. The website will also use colours that accommodate for users that are visually impaired.

Compatibility: A reset CSS template will be used on each page to help the page display consistently on different browsers. The correct use of CSS size types will be used on the HTML elements.

Test Plan:

The application will be tested throughout the development process through VS Code and by using the Console of the Chrome's Inspector Tool to pick up any errors.

The Booking form and the Contact form will be tested thoroughly by trying all combinations of user input and errors to try to cause an error. For example, in the booking form, I will try select all seats in the seating grid, then reduce the number of tickets test the code or try or select seats without selecting the ticket prices. Or in the Contact form I will input numbers in the name field and characters in the number to test the input.

All links and multimedia content (videos, etc) will be tested on each page to ensure they are valid and working correctly.

The responsiveness will be tested using Chromes and Firefox's Responsive width at all widths to ensure the content fits properly in the screen and that the design is consistent at every pixel width.

The site load time will be tested at different screen widths through the Network tab in Chrome's Inspector tool to ensure the site will perform well in SEO.

All files will be run through JSLint to check the code.

The website will be tested on the following browsers to ensure compatibility and that the design is consistent.

Chrome Browser - Version 99.0.4844.51 (Official Build) (x86_64) - Latest version.

Safari - Version 15.3 (17612.4.9.1.8) – Latest version.

Firefox - Version 98.0 - Latest version.

Adjustments will be made in the styling if required.

I will also get a family member to perform user testing on the website by navigating through the pages, booking tickets and submitting a ticket through the contact form. Suggestions and adjustments will be made if required.