



A University student's guide to what's on in Brisbane

DECO1800 – Studio 1: Final Report

Semester 2, 2022

Team: Vanth



Grace Choo, Lauren Stacey, Lily Bennett, Yixuan (Rico) Xie, and Xiaoyu (Toby) Ren

Table of Contents

<i>Introduction.....</i>	<i>3</i>
<i>Design Concept.....</i>	<i>3</i>
Background, Purpose & Target Audience	3
Data Implementation	4
User Interaction.....	6
Web Application	10
<i>Design, Development, and Implementation Process</i>	<i>10</i>
Initial Design and Development	10
Response and Changes from Feedback.....	10
Challenges	12
<i>Reflection and Conclusion</i>	<i>13</i>
Overall Reflection	13
Reflection: Strengths	14
Reflection: Weaknesses, and Opportunities and Recommendations for Improvement	14
Response from Tradeshow	17
<i>References.....</i>	<i>18</i>
<i>Appendix</i>	<i>19</i>
Appendix A: Interface Design	19
Appendix B: Code Snippets	23
Appendix C: Colour Scheme and Font Selection	24

Introduction

The purpose of this report is to explore our web-based interactive application that incorporates public government datasets to find events for university students in Brisbane. Our team is made up of five members: Grace the team leader and designer, Lauren the lead analyst, Lily the lead communicator and designer, Xiaoyu the lead developer and Yixuan the allrounder. As a team we uncovered that there was a lack resources for students like us that have a limited budget that are eager to meet new people and discover more of Brisbane.

Our research has shown that university students are interested in the following type of activities: (1) Fitness based, (2) Cultural events (etc. dance, art, and music), (3) Social gatherings, (4) Book club. We have discovered that university students are enthusiastic and motivated to meet new and explore Brisbane however we have found that resources are lack of resources to discover these types of events have limited their ability to do so.

The aim of this website is to bring events from all over Brisbane, that are ideal for university student to one website, allowing them to easily search for events suited to them. This website has multiple options to find events as well as journey planning via public transport, car, or walking. The user would only require the user to allow the site to access their location to be able to see how to get to the event and their proximity to the event. As a team we found that this would be an engaging but practical way of searching for events and activities to do around Brisbane.

Design Concept

Background, Purpose & Target Audience

Our concept is based off Xiaoyu's design inspiration idea, which was inspired by personal experience. As an international student who was new to the Brisbane, he was unfamiliar with the area and what opportunities the city has to offer. Brisbane Activities was designed as the place for university students to find events and transport options to get there. After agreeing on our concept, we investigated several pain points experienced by students to consider when designing our website. The main points for our target audience are lack of familiarity with Brisbane, loneliness, affordability, and accessibility.

Australia has the highest population of international students in the world (Study in Australia, 2019). Between January and July in 2022, the total number of international students studying in Queensland was 76,312 (Department of Education, 2022). At the University of Queensland, international students make up one-third of enrolments which is a significant portion of our target audience (Study in Australia, 2019). As they are new to the country and city, many students are unfamiliar with the local hubs of activity, events, transport options.

An Australian 2008 study found out of 200 international students interviewed, 65% said experienced a period of loneliness or isolation after moving to Australia (Sawir, et. al, 2008). In addition, in a UK survey of over 10 000 students, 1 in 4 reported feeling lonely all or most of the time (Clarke & Jeffreys, 2022). Marieke Ernst, PhD, of Johannes Gutenberg-University Mainz in Germany cited the Covid-19 pandemic as a catalyst for “increased loneliness.” (Robin, 2022). In addition, she highlighted the negative effects of loneliness and how it can lead to “premature mortality and mental and physical health” (Robin, 2022).

Students generally have a low budget, as they don’t have much time to work around their studies. This means affordability is essential when they are looking for activities to do in their spare time.

Brisbane Activities provides a digital solution to these problems. It is a interactive platform where students (aged 17-30) can find affordable events to attend and learn transport options to get there. The intention is that through the use of the app, students both local and international can familiarise themselves with Brisbane, have some fun, meet new people and make friends with similar interests.

To do this, Brisbane Activities uses live public data from the Brisbane City Council to find local events and present a list of activities which are affordable and likely to be enjoyed by students. Each event has a page with more details, options for sharing, tips for booking tickets, and the opportunity to compare transport options. In order to make our website unique compared with the general navigation website, we added interactive and gaming aspects to our website to make it more innovative and impressive. Users can search for events using keywords specific options or find an event through the ‘Make a Date’ quiz function which will display events catered to the user’s availability, budget and interests. Another feature to find events is the Brisbane Activities Game for which there are two versions: Australian animals and Pokémon. All of information is provided free of charge and is accessible to everyone.

Data Implementation

The datasets we utilised in our application include:

- [Brisbane Festival Events](#)
- [Car Park Location](#)
- [Bicycle Rack Location](#)

Most of the functions in our website were implemented using the Brisbane-Event data source. However, during the initial stages of development, extracting data from the Brisbane-Event API was very tough because the source was different compared with the other sources demonstrated in tutorials and classes. Specifically, when we tried to access the data by using a typical AJAX function, we were met the CORS error as demonstrated in

figure 1 below. After researching it was discovered that we needed to request access to use the data source and prevent it from being blocked by CORS policy.

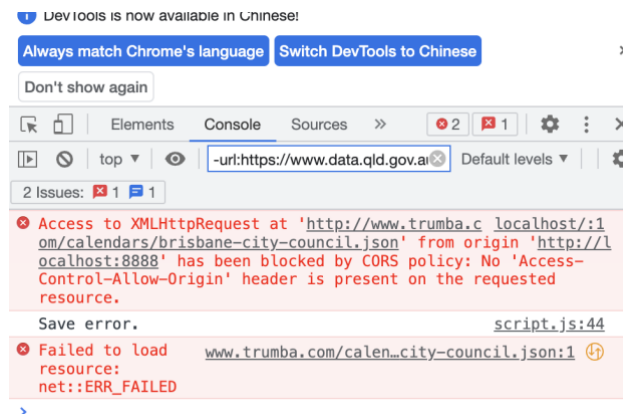


Figure 1: CORS error

After further research, we found a temporary solution which involved using a tool in GitHub called CORS-anywhere, this issued a NodeJS reverse proxy that gave us authentication to utilise data from the source. Although this CORS-anywhere solution helped us temporarily, there was a side effect in that we needed to open the CORS-anywhere website and request to get a temporary access when we opened our website. This is pictured below in figure 2.

This demo of CORS Anywhere should only be used for development purposes, see <https://github.com/Rob--W/cors-anywhere/issues/301>.

To temporarily unlock access to the demo, click on the following button: [Request temporary access to the demo server](#)

You currently have temporary access to the demo server.

Figure 2: CORS-anywhere temporary access permission

Therefore, after discussing the issue with a tutor, we identified a better solution to address this problem without side effects. The solution involved the creation of a new PHP file we called 'API.php'. Within this file, we used the `file_get_contents($api_url)` method to access data for our webpage. We then used the AJAX function to retrieve the data from API.php and as a result, indirectly retrieved the API data by server, rather than the browser.

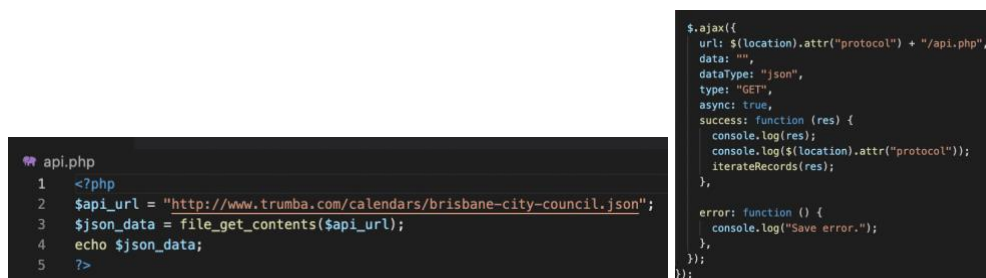


Figure 3 and 4: The API.php file and AJAX function respectively

Additionally, we inserted the data from the Car Park Location API and Bicycle Rack location API into the navigation function. A code snippet to demonstrate this implementation can be seen in figure 1 of Appendix B. We show the car park and bicycle rack on the google map in form of markers to help users find the location of car parks or bicycle racks near the specific event.

This list of events is an extremely broad range, with activities for every age, interest, cost, and more. This meant that there would be lots of events that would not be geared towards our target audience, so we have selected options that we believe would be of interest. This allows our website to be specific and unique, and to not have redundant data. This has been achieved through filtering the events that have the keywords “children”, “kids”, “toddlers”, “elderly”, etc. and deleting them from our displayed events as they would not be suited for our audience.

User Interaction

Our web application design and main interactivity follows most other websites that our target audience would be familiar with. This is shown to be an effective strategy through “Jakob’s Law of Internet User Experience” which summarises that users are used to spending time on other web applications and becoming familiar with their design. (Nielsen, 2022). This means the user will want the process of user experience to be similar, so designing a similar layout means it will be easier and more enjoyable for them to interact with. Larger, more visible versions of the interface can be seen in Appendix A. There is also a loading page that has been programmed into every page, which is displayed while the content is loading to demonstrate to the user of this process and to remove the possibility of display delays.

Firstly, home page which can be seen in figure 5, contains most of the information and interactivity of our website. It includes a menu bar underneath the slideshow with buttons for each section, which will be automatically scrolled to when they are clicked. Considering the design of this page, and each section having its own menu option, the menu bar is moved to the top of the page once the user scrolls down allowing easy navigation between the sections at all times. An engaging feature at the top of the home page is a slideshow of featured events, displayed to give the users a quick idea of what the website is about, and the types of events included. Users would likely be familiar with this feature as it is similar to streaming applications like Netflix and Stan which display new and popular TV shows and movies. This is proven through Netflix’s approximate 214 million subscriptions (Kats, 2022), and that 75% of 18 to 34 year old people have Netflix (Ivan, 2022). In the final iteration of our project, we would have liked to use the dataset to supply the image and details however due to a lack of time, the images and text are currently hard coded into the application.

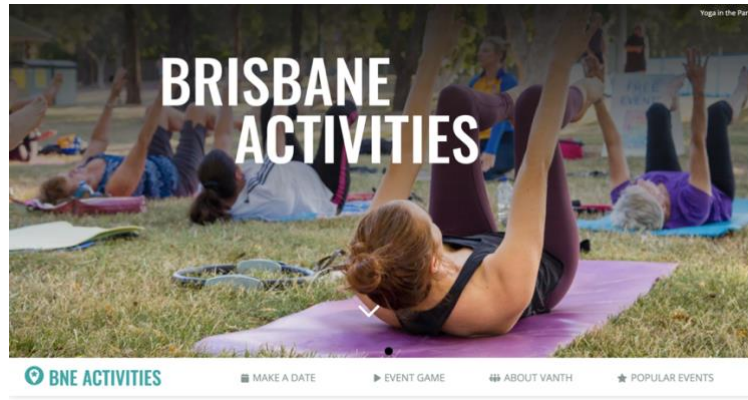


Figure 5: Home page

The first function on the home page is what we have called the “make a date” function (illustrated in figure 6). This is an efficient and creative way for users to find the right event for them, by answering a series of questions to help the program filter the events and only show the ones that would suit the user. Here, the first question of the quiz is displayed, prompting the user to begin the quiz. Each time the user clicks an answer box, the next question is automatically displayed. Once they have finished the quiz, the events are filtered to the specifications the user selected, and the related events are displayed in a card grid format. To remind the user, these options are highlighted in the filter key. If the user likes the look of an event, they can click the event and are taken to the specific event page. A code snippet demonstrating a part of this function can be seen in figure 2 of Appendix B.

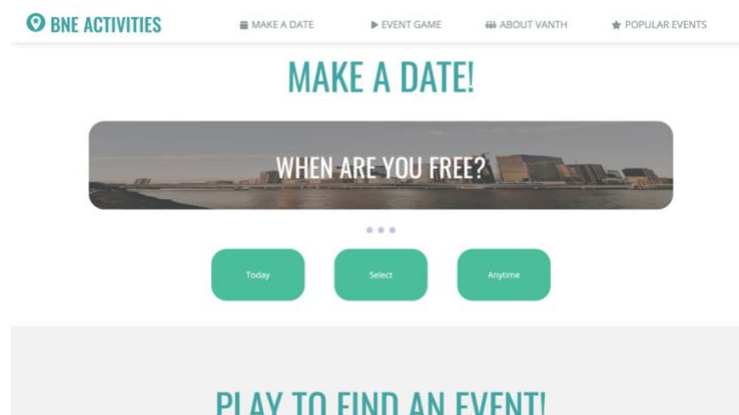


Figure 6: “Make a date” function

The next section is the “popular events” section which can be seen in figure 7. This is where the users can search through the whole list of events that we have selected to be included from the dataset. These are displayed in a card grid format for readability, with the important information including the event name, date, and an image for each event. Once the user starts typing in the search field, the events are automatically filtered in terms of the search term. From here, when the user clicks the link for an event, they are taken to another page specific to that event with more details.

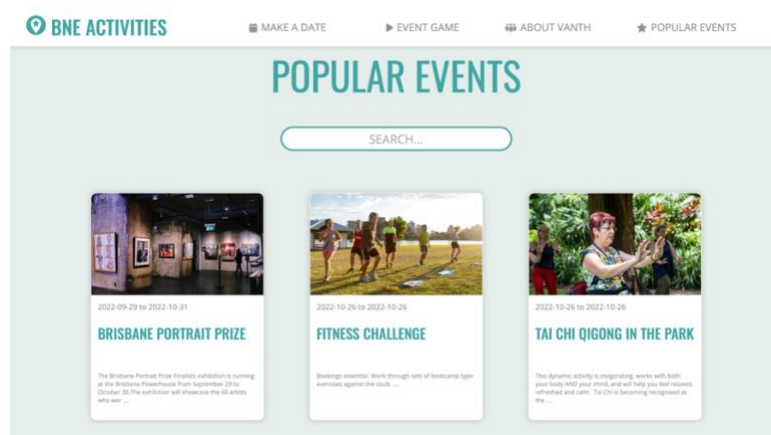


Figure 7: "Popular events" section

The final section includes the Pokémon game function, where the user can choose between two versions of the game (figure 8). In this function, the user is taken to a map illustrating all the events in Brisbane using Pokémon characters or Australian animals, depending on the version (figure 9). If the user clicks an event point, they are prompted to play and win a game in order to view the event details. The game is illustrated in figure 10. This was implemented to add an engaging experience for the user.

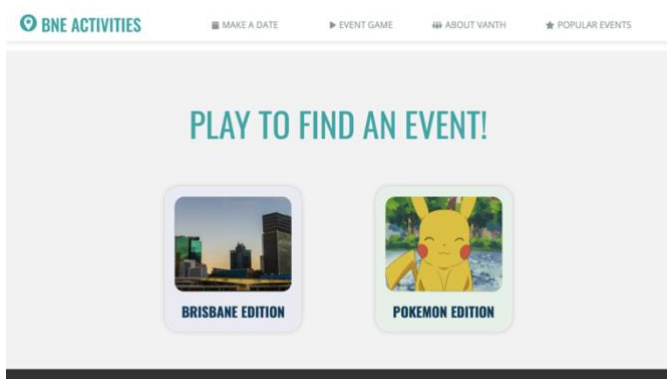


Figure 8: Game introduction section

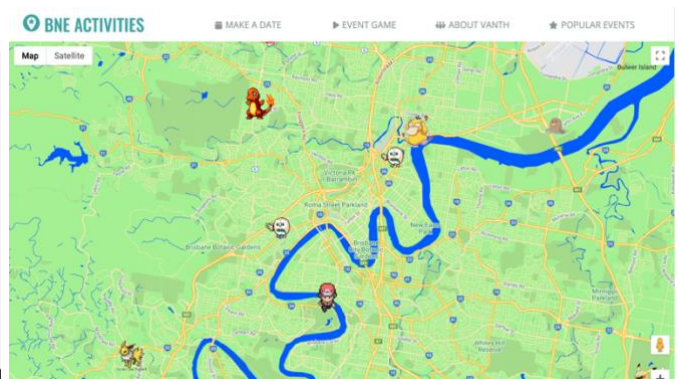


Figure 9: Game start

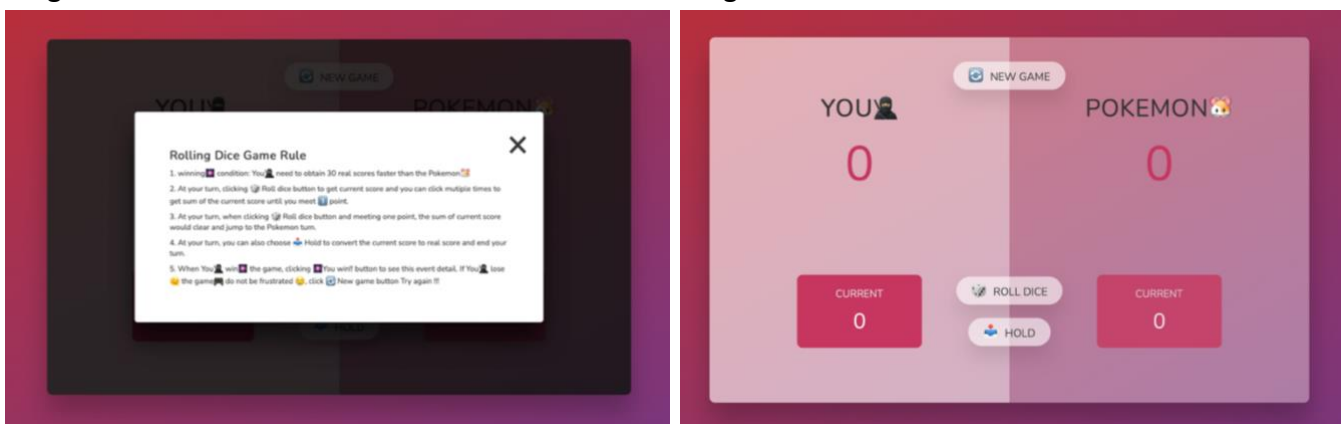


Figure 10: Interactive game function (instructions and game)

The design for the individual event pages can be seen in figure 11. Additional details for each event are listed here which include date, time, cost, location details, links for the user to add the event to their personal calendar, transport details and options, and links to social media for the user to share. We considered that the users – especially new to Brisbane – might have difficulty finding transport to events, so we have provided transport mode options and details for each mode. Once the user clicks the transport option, the route will display on the map. This also includes details about car parks and bike racks near the location. There is also a map with the pinned location of the event, and the user's location.

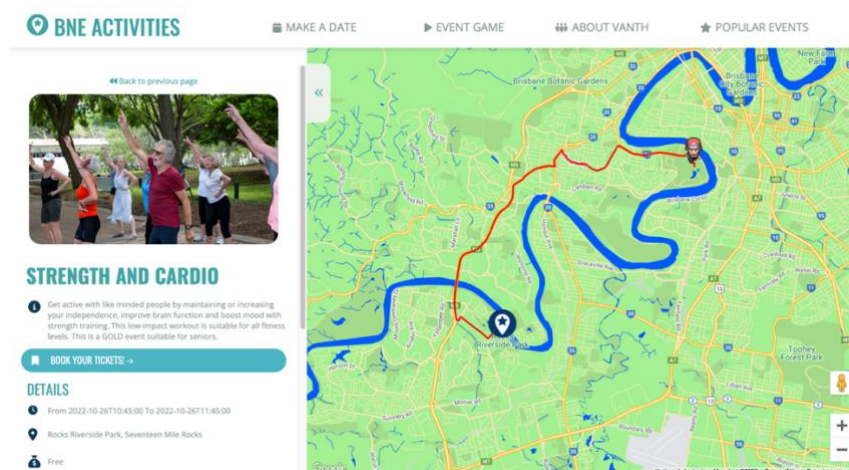


Figure 11: Event details page

To further cater for our users and general accessibility, the need for the application to be responsive so it can be accessed on any size screen was very important. CSS was used to resize and rearrange elements on each page for when the interface size was resized, to ensure all elements were visible and accessible. Also, using sizing attributes like viewport width and percentages to make elements resize automatically. The mobile view for the pages described above can be seen in figure 12. An example of this code can be seen in figure 3 of Appendix B.

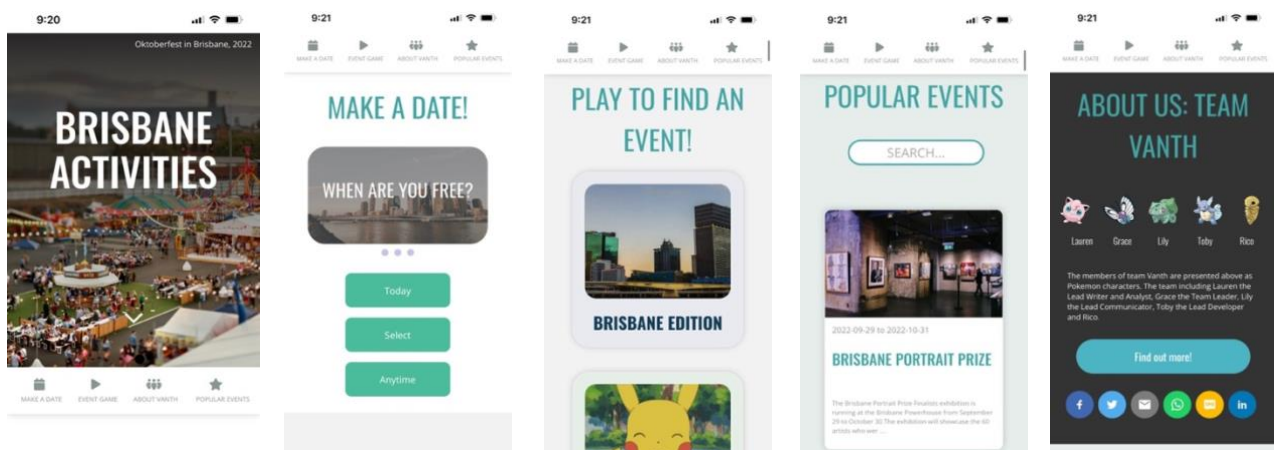


Figure 12: Mobile view of interface design

Web Application

Here is a link to our fully functioning web application: <https://vanth.uqcloud.net>

Our website is responsive and can be used on desktop and mobile devices however, the Pokémon dice game is not functional on mobile devices. Our website can be navigated using the top navigation bar or scrolling through and selecting options from the home page. Back buttons are provided when necessary and modals can be exited using the small black cross (top right) or by clicking the background. Make sure to read the instructions before attempting the Pokémon game and have fun!

Design, Development, and Implementation Process

Initial Design and Development

The initial concept for the project was very different to our final design, it was based on Grace's idea during the rapid design sprint and was intended as an application for parents or carers to find a suitable park for them and their children. It would have included a map of Brisbane with the locations of parks and filters to assist parents with different priorities. For example, if the user needed somewhere close by. We also planned to include a table or list view with major details corresponding to each park including name, location, type, ratings, and symbols illustrating the facilities available. Similar to our current concept, each park has its own details page with more specific information including ratings from other parents. Upon reflection, we found that the data source had a limited number of parks and insufficient information about facilities. In addition, the concept ultimately lacked the opportunity for engaging components and elements that were different from current web applications like google maps. Due to this, as a group we discussed and altered our idea.

Once we reconsidered our idea, the initial design for the new concept was still very broad and needed to be developed to ensure it was engaging enough for our users. This was mainly found in our feedback from the design proposal presentation, which will be discussed further in the next section. This design was a very simple website where university students could go to search and find activities to do in Brisbane, there was limited interactivity apart from a basic search function. During this time however, the data was implemented into the website and the search function was completed.

Response and Changes from Feedback

Throughout the design, development, and implementation processes we have received feedback across all elements of our concept that we have used to make improvements.

Design Proposal

The feedback we received from peers following the Design Proposal presentation highlighted that improvements needed to be made in terms of how engaging and interesting our website was, the interface design and how well we catered to our target audience. To improve engagement and make our website more unique we ideated a new “make a date” feature where users can complete something similar to a BuzzFeed quiz with questions like “When are you free” and options such as “now”, “this week” or “anytime” to efficiently find the events that they would like. As emphasised during the presentation, the interface design was always an element that we planned to improve. As a group we selected a specific colour scheme and fonts to be used throughout the website for continuity. We selected modern fonts which are easy to read and appealing and used colour theory to select our colours and embody the intentions of our website. We have used blue to represent a sense of serenity, stability, intelligence and trustworthiness and green which is soothing and natural, also connoting balance. These can be seen in Appendix C.

To ensure the application catered to our target audience, we planned to filter events in the data set to only display ones that would be of interest to university students. We also considered collecting data from a greater number of sources depending on the quality of data and how we progressed.

Paper Prototype and Low Fidelity Testing

Following user testing with our paper prototype we found users enjoyed the new “make a date” feature but from observation we noted how different options would be preferable to a typical user. As a result, we have changed the options to “today”, “anytime” or “select your own date” as we believe these options are more valuable to users.

Reassuringly, users reported that they preferred the proposed new design elements and interface, however we noted the hero image on the home page was fairly uninteresting and confusing to users. We have therefore decided to show a slideshow of images with featured events happening soon instead in order to capture the attention of users and make our website more engaging. Furthermore, we have added a white arrow to signal to users to scroll. This is depicted above in figure 3.

Work in Progress

From the work in progress demonstration, we were able to further refine our concept and design. By demonstrating specifically how the website works, our target audience, students, would have been able to gather a better idea of the application. We received positive feedback on the new colour scheme, and the idea of the slideshow of featured events on the home page was reaffirmed. However, we received further concern that the web application lacked engaging elements. Therefore, other interactive elements

were considered to be implemented like links to social media and opportunities to connect to other users that would make the application more appealing for university students.

Additional User Testing

To ensure we were confident with the changes we made from the feedback thus far, we conducted additional user testing to finalise these improvements and to ask for any final feedback. Positive feedback on our colour scheme was reiterated, and users also liked our card layout for the list of events. A concern that was brought up a lot was the lack of instructions for the user causing confusion in the steps they are meant to take.

Challenges

Many challenges were faced throughout the development process, mainly surrounding the code development of the web application.

Team

As a team our main challenges involved communication and lack of experience and familiarity with coding. We all had demanding schedules this semester and could not find a time to make weekly in-person meetings, other than during our studio class. As a result we connected via zoom once a week and Instagram messenger. We believe it would have been easier to demonstrate progress and issues to other group members if we had met in person and communicate more effectively. In addition, two members of our group only recently moved to Australia and are not yet proficient in English. The language barrier meant we had to provide extra clarity when necessary and be patient with each other to ensure we were all on the same page.

Because many of the group members were not very familiar with JavaScript, we had to overcome multiple hurdles to produce to the final product. Some of these include difficulties using DOM to handle the HTML and CSS, designing the logic of functions, and implementing them with a series of jQuery syntax, using jQuery and PHP to transfer data between different pages and using AJAX to extract API data.

Development

The most challenging part of development was programming the event details page. On this page we planned to use google maps to show the user's location (using the HTML geolocation API) and then use a geocoding API to convert the event addresses to coordinates to display on the map. In addition, an AJAX function was used to retrieve data from the bike rack and car park APIs to also be included on the page. The combination of these elements on one page made the function very difficult to implement, however they were completed with help from online sources and tutors.

Another difficulty when developing was the inability to edit our website simultaneously. Early on in development there was a miscommunication which led to two of us editing the website at the same time, one of us adding navigational elements and styling with CSS and the other implementing functionality with JavaScript. After realising and attempting to combine our work we found the process to be so convoluted that we decided that moving forward, we would edit one at a time to avoid accidentally creating inconsistencies and bugs.

Another significant challenge we encountered was a lack of consistency across all devices. This required problem solving and research in order to debug. One example was that not all browsers depicted the pins for the event locations on the map and instead a blank map was displayed. In addition, in some cases on the detail page, the user's location, event's location and itinerary were also not visible on the map.

Other challenges involved debugging and troubleshooting issues. For example, when testing we realised some users, after winning the Pokémon game, were not presented with the detail page as they should have been and instead a message stating "file not found" was displayed on screen. It was found this was because we had not correctly updated the URL to extract data from the API.php page. We also encountered other issues such as a program collision when nesting multiple APIs in a single, complex function. Luckily, due to extensive user testing between team members and peers, all bugs were fixed before the tradeshow. Some problems, in retrospect had obvious solutions but others involved advanced JavaScript knowledge like 1. Promise, 2. This index, 3. Closure 4. function scope and global scope. We found that while the process of identifying problems caused concern and made us feel anxious at the time, problem solving and troubleshooting deepened our knowledge of JavaScript behaviour. Implementing the solutions after reflecting on our code or research helped us learn the most and increased our confidence once we were able to see it working correctly afterwards.

A major challenge was timing constraints that meant we were not able to implement as many features that we would have liked to. This is discussed further in the reflection.

Reflection and Conclusion

Overall Reflection

Overall, our final product has met the requirements and goals that the group created for the minimum viable product, so we think this is a successful outcome.

Likes

As mentioned, we were all inexperienced and lacking confidence in our coding abilities, so we are incredibly proud of what we have achieved as amateur developers who are unfamiliar with JavaScript, particularly Xiaoyu Ren. We are proud to have developed an

effective solution to the problem we set out to achieve and actually implemented more features than initially planned by including transport options and a Pokémon game. We are all in agreement that the design choices to make our website more aesthetic and improve usability are effective and make our website engaging and easy to navigate.

Dislikes

We believe the inability to edit simultaneously meant there was a lack of time for us all to be able to edit the code of the website and improve our JavaScript skills. In addition, time constraints meant we were unable to try and include more features we believe would be valuable (as discussed in the reflection). We are aware that our concept has so much potential and despite all that we were able to implement we feel as though extra inclusions such as a “add your own event” feature or using more data sources would have made it even more valuable to potential users.

Reflection: Strengths

Interface Design

In terms of strengths, once we settled on our colour scheme, interface design, and other design elements, we received lots of positive feedback in terms of how it was appropriate for our target audience, and was an accessible, readable, and usable interface. In particular, our layout of the pages which uses Nielsen’s Usability Heuristics to ensure consistency, usability, and aesthetic and minimalist design. Additionally, the hierarchy of our information on the main page is a layout that would make sense to the user and the process they would want to interact with the website. For example, the slideshow is the first element to engage the user, followed by the “make a date” function so users can easily find what they are looking for based on preferences. We also received positive feedback regarding the ease of finding events through personal preferences.

Extensive User Testing

Finally, a successful aspect of the project was our extensive user testing. With this we were able to adapt and improve our concept based on feedback from external users who were not familiar with the web application which meant they would have an impartial perspective. We believe input from potential users was extremely valuable and greatly enhanced the design, interface and layout, content, features, and useability.

Reflection: Weaknesses, and Opportunities and Recommendations for Improvement

Overall, our final product has not only fulfilled but surpassed the goals and intentions that we initially planned to achieve and as outlined in our minimum viable product. Despite this, we are aware that there are many weaknesses to our final website which supply opportunities for improvement.

Using the 'MoSCoW' method we categorised the ideas we had for features in our website, and it was decided that various interactive components would be too complex to include. Examples of this include adding functionality to the slideshow that features the 'most popular events', shortening our long list of events and adjusting the Pokémon game map to show only filtered and relevant events.

As mentioned above in the user interaction, the featured events slideshow (displayed at the top of the home page) is not fully implemented which means the developer will have to manually change the images and text as new events come along. This also means the displayed events aren't specific to the user or the most popular events meaning it could be unnecessary information. To improve this, we would edit the add a function in JavaScript which would collect three of the most popular events coming up or happening within a week to display to users.

The extensive list of events on our website is also something that could have been altered as it contributes to an increased loading time. If we had more time, we would have prioritised this next presenting a small selection before giving the user the option to 'see more' and expanding the gallery of displayed events.

Our team made the decision to focus on quality rather than quantity. As a result, we implemented our prioritised features and made sure they performed smoothly and correctly rather than adding a large quantity of unnecessary and unreliable features which may reduce the quality of our final website. Despite this, we feel as though the completion of these interactive components would improve the user experience and make the application more geared towards our target audience.

The website could supply more events that cater specifically to university students, currently the way we do this is by thoughtful design elements and filtering out events *not* geared towards students. Our method to filter events is effective for our dataset but many events we present may appear uninteresting to students. In addition, it has not been used for the Pokémon game function, meaning several events which are not for our target audience appear when playing. The limited range of events supplied is another weakness and is a result of retrieving data from only one source. This restricts opportunities for users as they are not aware of event happening which have been distributed via Facebook, student societies, or through university communities. We feel that using additional sources, for example, RSS feeds from UQLife would add value to our application as they are intended for our target audience. We also ideated a new web page called, 'Add your event' which would allow anyone to upload the details for an event they are hosting to our website, by saving in our database. With this feature, UQ clubs and societies could add events they are hosting which would add value by increasing range our range of events, providing more options to our users, and gaining more traction for their event through our targeted audience.

Our most significant unsuccessful weakness is the lack of adaptability for our Pokémon game. Currently the Pokémon game page in our website doesn't respond on all computers and search engines. The reason for this issue is unknown and we have been unable to resolve it however we have been able to increase the number of people it works for (from approximately 50% to 80%). However, in the future it would be ideal if the game would work on all devices and search engines.

An element that was partially implemented was responsiveness. Some components have been programmed to be accessible on all screen sizes however this can be progressed to ensure as well as the interface being accessible, that it is also aesthetic and a smooth design. This could mean developing a mobile application version considering most of our users would most likely be using our application on a mobile. As well as the accessibility on various internet browsers.

Opportunities

As mentioned, our concept has so much potential and opportunities to improve, a few ideas we believe would add value are identified below.

As many users will be from overseas, it is likely that they would speak a different language, other than English. To assist international students, our website ideally would be available in numerous different languages in order to be inclusive and reach a greater target audience.

In the future, we think our website could benefit from machine learning algorithms to personalise the experience and better cater to the desires of each user. If we add an option for users to highlight their interest using a star button, with this algorithm, the program (over time) would be able to learn the most popular and anticipated events and show these to users.

In order to develop a lucrative business model, we believe our website could benefit from connecting with companies who organise events to sponsor us. With this we would be able to display advertisements for these sponsors giving their events more traction. We would also be able to arrange deals for students

While Brisbane Activities is for locals, we believe the concept provides significant opportunity for domestic and global expansion. The pain points suffered by our target audience are not isolated to students in Brisbane. A survey study by the Higher Education Policy Institute of 10 000 University students in the UK discovered almost 25% of students are lonely most or all the time (Clarke & Jeffreys, 2022). Furthermore, it was found that out of over 115 000 students studying higher education in Dutch almost 70% reported they had felt lonely recently. (Robin, 2022) We believe implementing the application across the globe

could help build a stronger and more welcoming community to university students, both local and international.

We also believe a method of booking events through our website could be particularly useful to students. This was something we classified as a “would do” feature due to the complexity of the function and the fact that each event came from a unique source. A way of simplifying the booking process and

Response from Tradeshow

The tradeshow for DECO1800 was a beneficial experience for our team as it allowed us to communicate our website to our peers, tutors, and guests. While it was a fairly nerve-racking experience, it was also extremely valuable as it gave us a chance to learn how to show off our hard work through our website and effectively structure and communicate an engaging pitch, catering it to whoever we were presenting to. It is inspiring to reflect on how far we had come from the initial rapid design sprint, to now having a fully functioning and responsive website.

Generally, our website was received very well on both mobile and desktop. Users generally liked the concept and the interface design, and found it to be appealing, engaging and clear. We also noticed they found our improved website easier to navigate than users who tested previous versions. We noticed they enjoyed being able to find events based on their free time, cost preferences and interests through the make-a-date function. Despite the positive reception, the extensive amount of user-testing throughout the day highlighted a few issues, most of which we were thankfully able to troubleshoot for our final submission. An example of this was the event details not appearing following winning the Pokémon game (as previously mentioned) to fix this we quickly updated the URL to connect to the API. In addition, users were disappointed that the Pokémon game was not fully functional on mobile, and it was again brought to our attention how our website could be enhanced by a greater number of data sources providing events. These are both things we would have liked to implement and would definitely be our first priority if we had more time.

As well as being able to share our own project we were able to interact with other groups final products. Engaging with other’s projects and discussing the course with peers was inspiring as it opened our eyes to how creative IT concepts and solutions can solve problems for specific audiences. It provided an opportunity to grow our knowledge and understanding of different approaches to effective teamwork, developing using JavaScript and PHP and the design processes. We are grateful that we worked efficiently as a team, prioritise and work through tasks effectively, learn from our mistakes early on in the process, troubleshoot errors and bugs and create a website of high quality, that we are proud of.

References

- Clarke, V., & Jeffreys, B. (2022, June 9). *University students are far lonelier than other adults - study*. Retrieved from BBC News: <https://www.bbc.com/news/education-61735272>
- Department of Education. (2022, September 5). *International student numbers by country, by state and territory*. Retrieved from Australian Government - Department of Education: <https://www.education.gov.au/international-education-data-and-research/international-student-numbers-country-state-and-territory>
- Ivan. (2022). *Netflix Statistics*. Retrieved from <https://truelist.co/blog/netflix-statistics/>
- Kats, R. (2022). *Netflix statistics: How many subscribers does Netflix have? Worldwide, US member count and growth*. Retrieved from Insider Intelligence: <https://www.insiderintelligence.com/insights/netflix-subscribers/>
- Nielsen, J. (2022). *Jakob's Law of Internet User Experience*. Retrieved from Nielsen Norman Group: <https://www.nngroup.com/videos/jakobs-law-internet-ux/>
- Robin. (2022, February 7). *International students are lonely and need help, campaign groups say*. Retrieved from Dutch News: <https://www.dutchnews.nl/news/2022/02/international-students-are-lonely-and-need-help-campaign-groups-say/>
- Sawir, E., Marginson, S., Deumert, A., Nyland, C., & Ramia, G. (2008). Loneliness and International Students: An Australian Study. *Journal of Studies in International Education*, 148-180. Retrieved from <https://journals.sagepub.com/doi/pdf/10.1177/1028315307299699>
- Study in Australia. (2019). *International Student in Australia Statistics*. Retrieved from Studying in Australia: <https://www.studying-in-australia.org/international-student-in-australia-statistics/>

Appendix

Appendix A: Interface Design



 **BNE ACTIVITIES**

 MAKE A DATE

 EVENT GAME

 ABOUT VANTH

 POPULAR EVENTS

 **BNE ACTIVITIES**

 MAKE A DATE

 EVENT GAME

 ABOUT VANTH

 POPULAR EVENTS

MAKE A DATE!

WHEN ARE YOU FREE?



Today

Select

Anytime

PLAY TO FIND AN EVENT!

POPULAR EVENTS

SEARCH...



2022-09-29 to 2022-10-31

BRISBANE PORTRAIT PRIZE

The Brisbane Portrait Prize Finalists exhibition is running at the Brisbane Powerhouse from September 29 to October 30. The exhibition will showcase the 60 artists who wer ...



2022-10-26 to 2022-10-26

FITNESS CHALLENGE

Bookings essential. Work through sets of bootcamp type exercises against the clock.



2022-10-26 to 2022-10-26

TAI CHI QIGONG IN THE PARK

This dynamic activity is invigorating, works with both your body AND your mind, and will help you feel relaxed, refreshed and calm. Tai Chi is becoming recognised as the

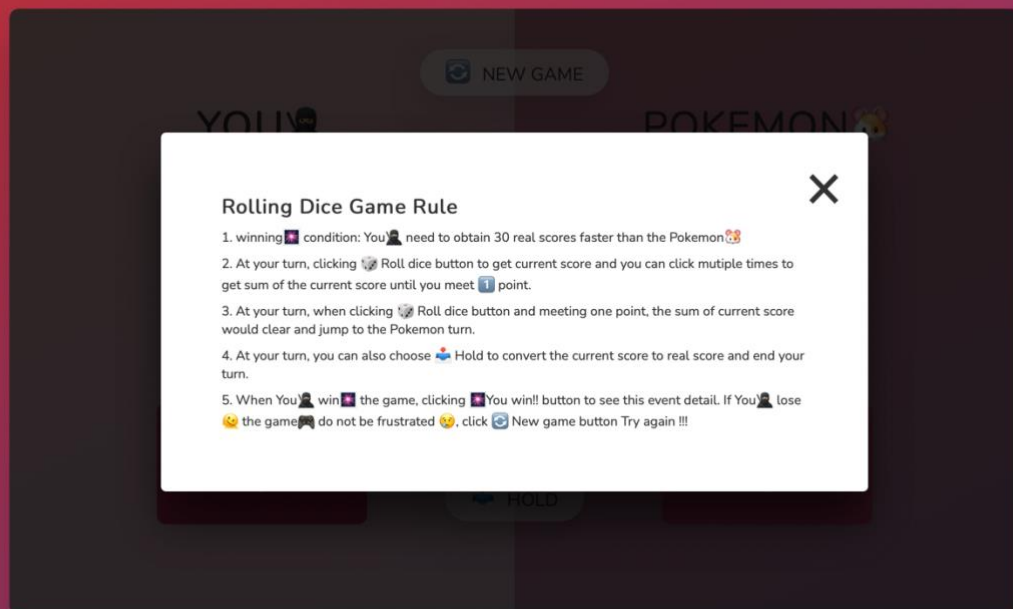
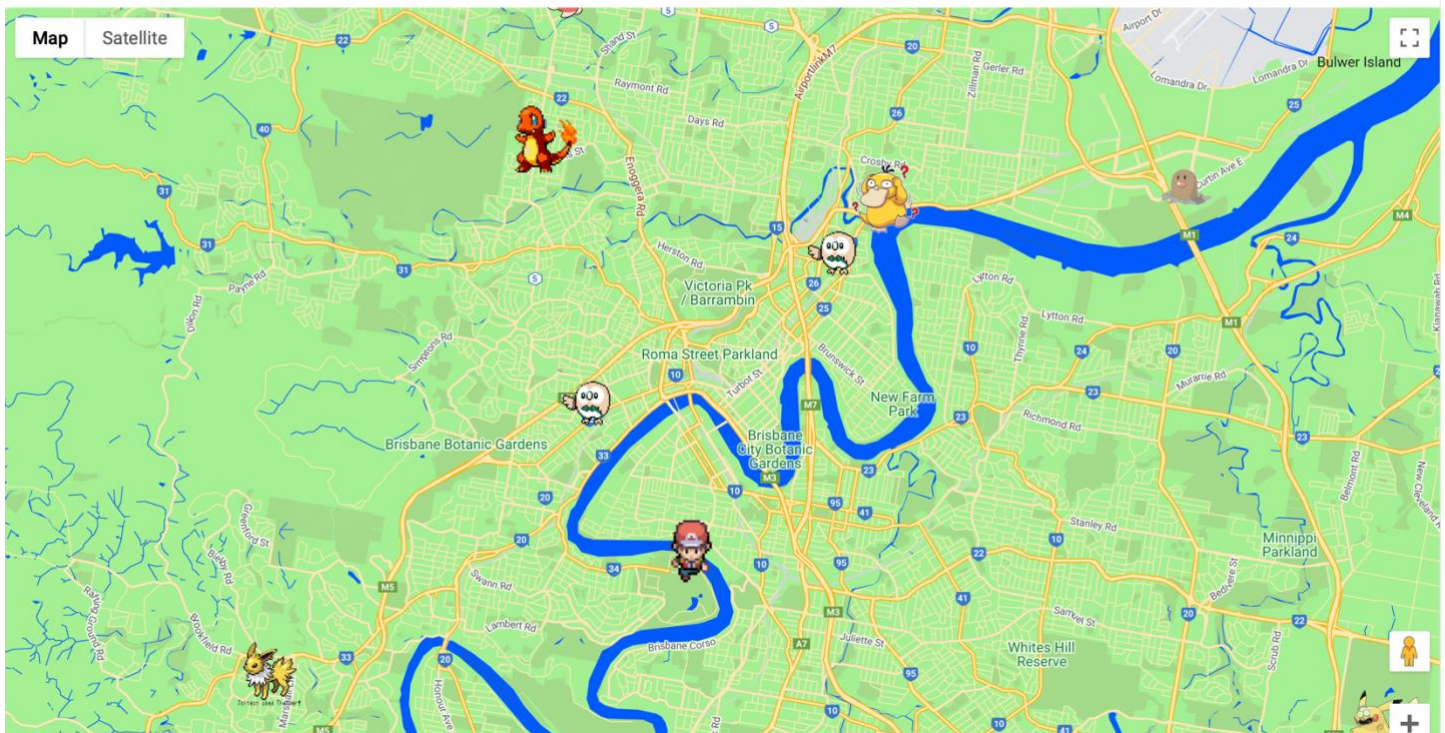
PLAY TO FIND AN EVENT!

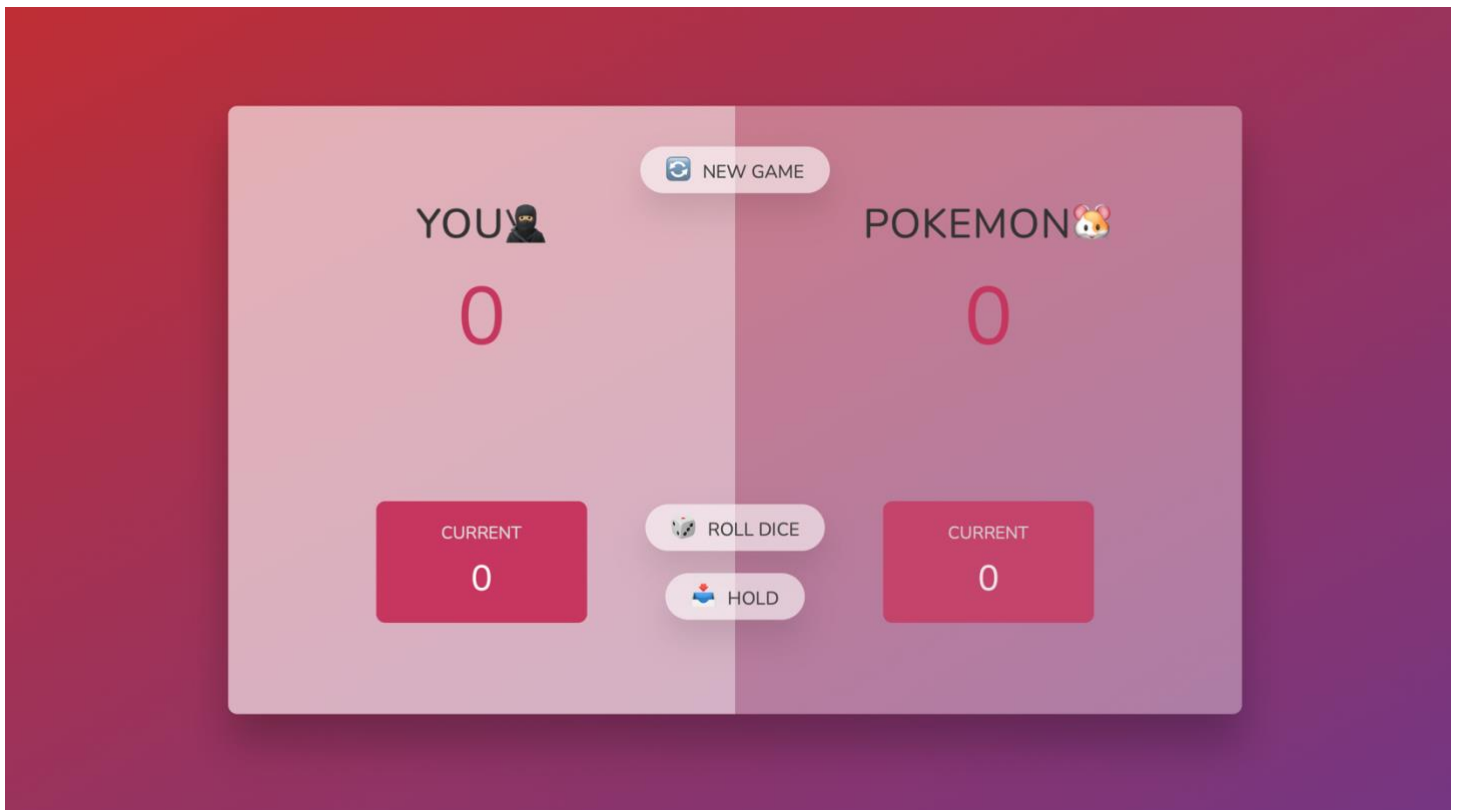


BRISBANE EDITION



POKEMON EDITION





BNE ACTIVITIES

MAKE A DATE

EVENT GAME

ABOUT VANTH

POPULAR EVENTS

Back to previous page



STRENGTH AND CARDIO

Get active with like minded people by maintaining or increasing your independence, improve brain function and boost mood with strength training. This low-impact workout is suitable for all fitness levels. This is a GOLD event suitable for seniors.

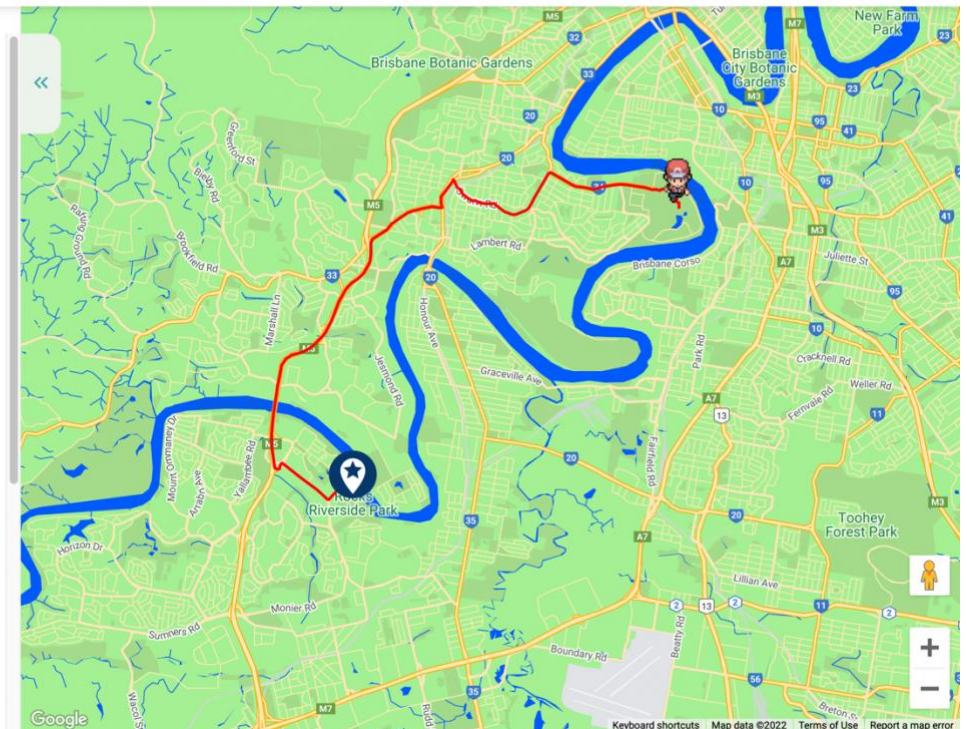
BOOK YOUR TICKETS! ->

DETAILS

From 2022-10-26T10:45:00 To 2022-10-26T11:45:00

Rocks Riverside Park, Seventeen Mile Rocks

Free



Appendix B: Code Snippets

```
$.ajax({
  url: $(location).attr("protocol") + "/api.php",
  data: "",
  dataType: "json",
  type: "GET",
  async: true,
  success: function (res) {
    console.log(res);
    console.log($(location).attr("protocol"));
    iterateRecords(res);
  },
  error: function () {
    console.log("Save error.");
  },
});

?php
$sapi_url = "http://www.trumba.com/calendars/brisbane-city-council.json";
$json_data = file_get_contents($sapi_url);
echo $json_data;
```

Figure 1: Data implementation

```
// duplicate the api data from local storage
let filteredData = allStorage();
let eventType = [];
let startDate = [];
let endDate = [];
let cost = [];
$.each(filteredData, function (recordKey, recordValue) {
  let type = recordValue["customFields"];
  startDate.push(recordValue["startDateTime"]);
  endDate.push(recordValue["endDateTime"]);
  var index = recordKey;
  $.each(type, function (recordKey, recordValue) {
    if (recordValue["label"] == "Event type") {
      eventType.push({ [index]: recordValue["value"] });
    }
    if (recordValue["label"] == "Cost") {
      cost.push(recordValue["value"]);
    }
  });
});
let questions = [
  {
    question: "When are you free?",
    imgSrc: "asset/brisbaneBackground1.jpg",
    choiceA: "Today",
    choiceB: "Select",
    choiceC: "Anytime",
    id: 1,
  },
  {
    question: "Free or paid event?",
    imgSrc: "asset/brisbane2.jpg",
    choiceA: "Free",
    choiceB: "Not Free",
    id: 2,
  },
  {
    question: "What do you feel like doing?",
    imgSrc: "asset/brisbaneBackground3.jpg",
    choiceA: "Family events",
    choiceB: "Fitness",
    choiceC: "Green",
    choiceD: "Culture",
    choiceE: "Art",
    id: 3,
  },
];
```

Figure 2: “Make a date” JavaScript function snippet

```

/* ===== RESPONSIVENESS ===== */

/* On smaller screens */
@media only screen and (max-width: 300px) {
  .side-panel {
    width: 95%;
  }
  .text {
    font-size: 11px;
  }
  .numbertext {
    width: 100%;
    color: #ffffff;
    font-size: 0.8em;
    padding: 8px 12px;
    position: absolute;
    font-family: "Open Sans";
    top: 0px;
    text-align: right;
    height: 150px;
    background-image: linear-gradient(
      to top,
      rgba(20, 20, 20, 0),
      rgba(20, 20, 20, 0.3),
      rgba(20, 20, 20, 0.6),
      rgba(20, 20, 20, 0.9)
    );
  }
  .mySlides img {
    height: 920px;
  }
  .teamBlurb {
    display: flex;
    flex-wrap: wrap;
    width: 100%;
    justify-content: center;
  }
  .blog-box {
    max-width: 290px;
    margin: 42px;
  }
}

```

```

/* ----- NAVIGATION BAR ----- */

}

@media screen and (max-width: 1000px) {
  .logo {
    width: 0px;
    height: 0px;
    opacity: 0;
  }
  .nav {
    padding-top: 10px;
    padding-bottom: 15px;
  }
  .nav-links {
    width: 100%;
    justify-content: space-around;
  }
  .nav-links a i {
    font-size: 2em;
    padding-right: 20px;
    padding-left: 20px;
  }
  .nav-links a {
    font-size: 0.6em;
  }
  .nav-links li {
    padding-left: 2.5vw;
  }
  .logo a img {
    width: 7vw;
    margin-left: 80px;
  }
  .vanthTeamParagraphs h5, .vanthTeamParagraphs p, .vanthTeamPurpose p {
    padding: 30px 30px 10px 30px;
  }
}

```

Figure 3: Responsiveness examples

Appendix C: Colour Scheme and Font Selection

Oswald For Headers

ABCDEFGHIJKLMNOPQRSTUVWXYZabc
defghijklmnopqrstuvwxyz1234567890!
@#\$%^&*()

Open Sans

For Subheaders and Paragraphs

ABCDEFGHIJKLMNOPQRSTUVWXYZ
Zabcdefghijklmnopqrstuvwxyz123
4567890!@#\$%^&*()

Colour Scheme

