**Introduction**

I was given the task of making an interactive website quiz about a topic of my choice using the following coding languages HTML, CSS and Java Script. I decided to choose music as the topic of my choice as I found music to be a big interest of mine and I often use it in my day-to-day life. Choosing music as my topic also created lots of options for different features for my website such as style, images, audio and much more. I made use of multiple API’s and Java Script functions to make my website functional and appealing. I made use of Github to track my progress and made use of their Github pages feature that would host my website allowing me to deploy it and make it public. The URL for my website is - <https://rorym18.github.io/set08101_CW/>

**Critical Evaluation**

The main features of my original design were to have a home page with a play button, leader board and options menu. The options menu would be a drop-down box that would have allowed the user to change some setting within the game for example the user would be able to change font size and have an option for subtitles for audio, but I decided not to go with this feature as I felt as though the text for the quiz was big enough for any user to read it. I also decided to do text-based questions meaning there was no sound effect that required subtitles for the user to understand the game. A disadvantage of this was in case a certain user needed to change the options to suit their preferences as there would be no way of doing that and would be unable to participate in the quiz or properly view my “about” page. I kept the layout of the home page pretty much identical to how I designed it with the addition of an extra button for the about page. I also included icons in each button to make my website stand out and look more dynamic rather than just having text inside a button.

The next page I designed was the quiz page, originally I planned on having a page for each question until I had a deeper look and understanding of Java Script. This then allowed me to change the question and answers on the same web page. after the user answered a question. This was beneficial as not only did it save me from making multiple pages and the user from a slight load time in between questions but it also made my website smoother and better looking overall. I also stated in my design that I would have a different page for each question and have a different design for each question. This changed when I discovered I could change the question on the same page. It also allowed me to have a randomised order of questions every time the user played the quiz. I also decided to switch the time bar with a progress bar to allow the user to see how many questions they had remaining. An advantage of this was that a user would always know which question they were and how many they had remaining. A disadvantage of taking away the time bar feature is that the user had no time pressure to compete with meaning they could take as long as they wanted to answer a question. This would make some users happy and relaxed while playing the quiz, but some users may grow bored of my quiz fast and lose interest making them not want to continue playing. I decided to keep the four box options for answers as this seemed like the easiest option for the user to enter an answer rather than typing a specific word. Which would also run the risk of a spelling mistake or maybe even a capitalisation as the user would have four options given to them meaning they would still be able to make a guess even if the user didn’t know the question at all. I also added a score counter allowing the user to see how many points they are collecting as they answer each question. An advantage of a points system is that there is something to work for keeping the user entertained and adding a competitive element to the quiz.

The next page I designed was the end page this page is for entering the username the user wishes to enter. In my original design I had a text bar where the user could enter their username. However, in my implementation I have the text bar and three buttons one is for saving, one is for playing again and the other is to go back to the home page. I implemented a feature that disabled the save button until the user entered something into the text bar stopping the user from having no username on the leader board list. In my original design I planned to implement a feature that would stop the user from entering any inappropriate names such as curse words. However, I was unable to add this which means the user can enter anything they would like which may result in some inappropriate names. I added a play again button to allow the user to attempt the quiz again. An advantage to this is that it allows the user to replay the quiz to try and get more points without having to save their previous score to the leader board. The go home button also functions similarly as it allows the user to return to the home page without having to save their score to the leader board. In my design I was concerned about how I would save the user data and thought that I would only be able to save the users data while they had the quiz open on their browser but then I discovered I could use a feature in Java Script to use local storage to save the users scores and keep them saved when they closed and reopened the quiz allowing the user to keep previous scores and allow friends to compete against one another.

The next page I designed was the leader board page, my implementation is very similar to my design where the users name and points will be displayed from highest points to lowest points. The only difference is that I have used local storage to store the usernames and points, so they are not lost when the page is closed.

The next page I implemented was the about page which was not initially in my design. The about page consisted of photos and text about me and my love of music. The page had links that lead to the home, page the quiz, and the leader board. My about page consisted of a navigation bar at the top with my links in it, three sections in the middle containing text and images and a footer at the bottom that contained some of my information. This page allowed me to express my love of music to the user and share some of my favourite album covers and bands with the user. I felt this created a more personal touch to my website and allowed the user to learn some extra information about me and the type of music that I like.

As I mentioned in my design, I made sure to implement different flex boxes within each of my pages. The advantage of this is that it makes my website accessible for different sizes of browser windows whether the user is using full screen or a slightly smaller window size.

I used a colour pallet I found on color.adobe.com to add a nice style to my website with colours that go together nicely. This colour pallet was the main theme of my quiz and is featured on every page. I also added different types of interaction within my website such as dynamic buttons that grow when the user is hovering over them and include a slight under glow to add nice visual effects to my website. Each button includes an icon from a website called fontawesome.com this allowed me to add bold looking icons within my buttons to give users a symbol to suggest what page the button leads to along with the text. I also added colour changing buttons within my quiz page to signify if the user got the answer right or wrong. For example, if the user chose the correct answer the button will turn bright green whereas if they chose the wrong answer the button would turn a bright red. Along with the changing colour, I also added different sound effects to signify right and wrong answers when the user chooses an answer. I got the sound files from the website findsounds.com which I used within my quiz page. Finally, my main font within my website is imported from google fonts this added a unique font that standard HTML does not offer I also felt it fitted my music quiz very well and would make it visually appealing to other users.

**Reflection**

Some main changes I would make to my website is the use of more audio and images. I would have liked to be able to have either an image or audio clip involved within my quiz. For example, I would have liked to use an audio clip from a song to get the user to guess the song. However, I was unable to figure out how to get to this to work within my Java Script as I had the questions changing on the same page which meant the audio kept playing for every question and I struggled to figure out a solution for this with the time I had left. I would have also had a problem of getting song clips from either google or clip the songs myself to create my own audio files.

Another example of question I would of liked to implement was image questions. For example, I would have liked to have been able to get the user to guess the album cover by displaying an image along with text within my quiz. However, I was faced with the same issue with audio question where the image would be displayed along with every question, and I did not have the time available to figure out a solution to this error. If I had more time, I would have liked to implement more questions that used audio and images to make my page more interactive for the user as well as show different skills and knowledge of Java Script rather than just use text.

Another example of features I would have liked to add was a preferences menu. In my original design I planned to focus a lot of my time on accessibility for all types of users, but I struggled to get some of my ideas working. For example, I originally planned to have a feature that would increase the size of the text within my website for users who have weaker vision than others this meant that there would have been less strain for users who struggle to see smaller text and would have meant more users would have been able to enjoy my quiz. Another accessibility feature I would have added would have been subtitles for my audio question for users who have a hearing impairment. This would have meant that all users would have been able to take part in my quiz weather they could hear audio or not. However, I was unable to implement this once I realised, I was struggling to implement any audio questions.

Overall, I believe that I have achieved a highly functional and interactive website quiz which offers the user a fun experience with an appealing style. Not only have I made use of skills I have learnt within the module, but I have also made use of extra resources such as APIs for my fonts and icons. I have also given the user a more as well as this I have a small form of customisation such as choosing their own username. I have also added my own personal touch by adding an about page that talks about my own music preferences. This gives the users a small glimpse about what I enjoy and why I decided to create this web quiz rather than it only being made as a university project.

References –

<https://color.adobe.com/mythemes>

<https://fontawesome.com>

<https://www.findsounds.com/ISAPI/search.dll>