**CCT College Dublin**

**Assessment Cover Page**

|  |  |
| --- | --- |
| **Module Title:** | Interactive Application Development |
| **Assessment Title:** | Music Player |
| **Lecturer Name:** | Sam Weiss |
| **Student Full Name:** | Henrique Queiroz de Morais and Rhuan Mendanha Eli Raimundo |
| **Student Number:** | 2023288, 2023186 |
| **Assessment Due Date:** | 07/05/2025 |
| **Date of Submission:** |  |

**Declaration**

|  |
| --- |
| By submitting this assessment, I confirm that I have read the CCT policy on Academic Misconduct and understand the implications of submitting work that is not my own or does not appropriately reference material taken from a third party or other source. I declare it to be my own work and that all material from third parties has been appropriately referenced. I further confirm that this work has not previously been submitted for assessment by myself or someone else in CCT College Dublin or any other higher education institution. |

**Requirements:**  
Before starting the development we need to have in mind what we are looking for. Planning is essential so we can guarantee that a good work is going to be done in all other steps.

First of all, we started analysing the minimum requirements of our application:  
Users must select a folder with music files.

* The player should be able to identify files such as mp3, .wav, .ogg, etc.
* File and tracks must be displayed
* Controls such as play/pause, next, previous, seek, volume must be available.
* Progress bar
* Information about the music like title, artist, and duration must also be displayed.
* Light and dark interface.
* Intuitive user interface.

Having in mind and organising the process alongside the groupmate help the process to go much more smoothly. Having a clear plan and organising the process alongside my groupmate helped things run much more smoothly. We managed to divide the team tasks and stuck to this plan until the end of the project. Rhuan focused his energy on implementing the required features and exploring new ones, while Henrique concentrated more on the UI adapting the layout for both light and dark themes and ensuring the interface was still intuitive. Both collaborated closely to troubleshoot issues and ensure everything was integrated smoothly.  
  
**System:**   
Apart from the functionality required for our system we also need to plan the design, not only how it should look but the system technically.   
Having already in mind that we were already supposed to use Electron as our desktop shell we had to do various tests understand how to work with it.  
After that we started by setting the folder structure, HTML, JS and CSS files and where we going to start to work on.   
  
Then, we started to understand how we wanted it to look before implementing the functionality.   
  
**Development:**   
Finally, after all the previous planning of the technical part and the interface the development started.  
As we had previous understood that the development of an application is slightly different from an common webpage we knew that we needed such logic that would handle user actions in the UI and avoid any security issues.   
  
Creating all the file that where necessary we could also start to add the buttons for play, pause etc and connect then to their functions. During this process we also had the idea of implementing an equalizer.

**Testing:**   
The process of developing and giving the buttons proper functionality took loads of testing.  
If the volume and music track was working properly or if we could select the music folder and it would display all the songs on it.  
During the testing and also during the development of different functionalities we found out that each new function was affecting an old one that seemed to be working properly making it to not work.   
Also testing the application in different machine help us to understand what else do we needed to implement or if we were in the right way.  
  
**Deployment:**   
After the testing phase, making sure that the application was working correctly and also been happy with the result at this stage we could finally write our README file and explain the functionality of our application and of course making sure that all was pushed into GitHub and could be accessed correctly.  
  
**Maintenance:**   
Various ideas came during the process of functionalities that could have been implemented during the process. This final step is very important so we could think in what could have been done and improve our application.   
We can also include that any error or mistake that was not found during the testing face can also being reviewed in future updates.  
  
**Reference list**

Gallagher, A., Dunleavy, J. and Reeves, P. (2019). *The Waterfall Model: Advantages, disadvantages, and when you should use it*. [online] IBM Developer. Available at: <https://developer.ibm.com/articles/waterfall-model-advantages-disadvantages/>.

GeeksforGeeks (2024). *Waterfall Model - Software Engineering*. [online] GeeksforGeeks. Available at: <https://www.geeksforgeeks.org/waterfall-model/>.

lvanko (2022). *Waterfall Methodology – Collaborative Work in Networks*. [online] Blogs.upv.es. Available at: <https://batscollabwork.blogs.upv.es/2022/03/09/waterfall-methodology/>.