**Design part 1:**

This is part one of design. It is design for the final version and it will focus of these elements:

Table

Description automatically generated

It is due on the 16th of September.

**Part a: Describe how the problem can be broken down into smaller computational solutions:**

Firstly defining the problem: I want to create a user interface that allows the computer and user to interact and play a game of chess. The user should be able to load up the program, go through minimum menus and then begin playing chess. The computer should be able to play chess against them and the game should end when the user concedes or when the user wins or loses. The user should then be given the opportunity to play again or to exit back to the menu.

~~Firstly I will decompose the problem into 2 distinct parts that will be align with how this solution will be implemented using web technologies. I will have:~~

* ~~A front end: This will be solved using code that is run client side in the browser~~
* ~~A backend: This will be solved with code running on a HTTP server or equivalent~~

~~All of the subproblems will be divided between these 2 halves of the solution. As a result they will have different functions and responsibilities.~~

~~Firstly~~

I will use a document to decompose the problem down into sub problems.

I will start with a simpler version of the user interface and then add to it as I add additional features. For the simplest version of the program which does in fact play chess I will have a single webpage that will include a variety of widgets.

Here is a sketch of this user interface

V2 will have a pregame menu that will ask for settings like difficulty and starting colour.

Here is a sketch / menu diagram of this interface.

**Part b: Explain and justify the solution**

**Part c: Describe the usability feature that are to be included in the system**

* **Effective**
* **Efficient**
* **Error tolerant**
* **Easy to learn**
* **Engaging**