

**Initial Plan**

Designing and creating a web application to streamline the character creation and maintenance process of Fantasy Flight Games' Star Wars system

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**Module Code:**

CM3203

**Module Title:**

One Semester Individual Project (40 Credits)

## **Project Description**

As an avid role player and someone who has run many Fantasy Flight Games' (FFG) Star Wars centred games both online and locally, I can see how a player's first step in a game can be the most difficult and confusing if they are not familiar with the system. When going through the character creation process, multiple steps are involved which can be overlooked or missed if the player does not know what they are doing. During actual games, it can be confusing when a player wants to make a skill check with their dice as they have to figure out the amount of dice they will be rolling.

The web application that I will be creating will allow players to create and maintain their character for the game they are playing and take actions required in the game such as rolling dice or editing their skills. This application will allow the user to create and view their character while also being able to maintain them afterwards. For games online where the players have access to their character on their computer, they will be able to make their dice rolls through the application in order to streamline gameplay. All characters in the game will be viewable by the game master (GM) so that they can keep track of them for story purposes and to keep players from cheating. The characters will be stored on a web server so that the players can access them whenever they have access to the internet and to ensure characters are not lost when a local machine fails. When the players use their characters, they will have to log into the web server. They can then view/edit their character's data and make their dice rolls for games. As this all happens through the web server, the GM can track players' history and see they're activity. This allows the GM to track back through dice rolls and watch for any unauthorised edits to characters. As the GM and players can both access the same character, I will have to ensure synchronisation takes place and that vital data isn't overwritten.

Most people today have access to a mobile device whether it's a phone or tablet. This is why, as an extra feature, I plan to have the application usable through browsers on mobile devices as this would be useful for local games and editing on the move. With mobile functionality, the application can be used in games such as LARP-ing (Live Action Role Playing) to track combat and player vs player (PvP) interactions. As mobile devices have smaller screens, I will have to adjust the functionality on these devices so that the screens are not packed with information that they do not require. I will also have to design an alternate user interface for these devices so that navigating the application is easier.

As the application will need to run on PC and mobile devices, I will be writing the code in HTML, CSS and JavaScript. This will allow me to use frameworks to adjust the layout and design of the application depending on the device being used. The database will be an SQL database and I will use PHP to retrieve relevant data when required. In order to avoid major bugs and conflicts, I will be writing my code with the idea of each module has one function only. This will help me isolate bugs and improve testing. To do this I will have to break down the whole application to simple functions which will also help me find functions that can be reused.

## **Project Objectives**

My main objective is to create an application that can be used by players and GMs to keep track of characters in the GM's game. In order to achieve this, I have created primary and secondary objectives. The primary objectives are the things that I must complete by the end on the project to achieve a working

solution. The secondary objectives are the additional functionality that will make the application more desirable for users.

### Primary Objectives

- Complete background research into what players and GMs need and want while creating and maintaining characters
  - This will include researching into the players and GMs of table top games through the use of questionnaires
  - The functionality will be ranked with need and want, with need being more important than want
- Design and implement a functional prototype application that meets these needs
- Design and create an intuitive User Interface which adapts depending on the device the application is being viewed on
  - The PC version can display more information to the user and therefore can provide more functionality
  - The mobile version will be have reduced functionality but will provide what the user needs when they are away from a PC

### Secondary Objectives

- Provide additional functionality based on what users want as well as what they need
  - This will be decided based on data gathered from background research
- Provide an efficient application that isn't too taxing on mobile devices
  - The memory usage will be kept to a minimum, allowing the application to run in the background
  - The performance will be optimum, keeping loading screens to a minimum and speeding up the users experience
  - The network data usage will be kept to a minimum

### Work Plan

Supervisor meetings will be held once every week or at least every other week. Individual module testing will be completed throughout development during weeks 4-11 while each module is being developed, this includes fixing bugs and issues that arise. I will be taking notes throughout the project so that writing the Final Report is easier.

Week	W/C	Task
1	25-01-16	<b>Milestone: Initial Plan should be submitted by 31-01-16</b> Finish Initial Plan
2	01-02-16	Background Research: <ul style="list-style-type: none"><li>• Player and GM requirements questionnaires</li><li>• Find similar applications that meet similar objectives to this project or find why this type of application doesn't exist</li><li>• Find suitable library and framework for project</li><li>• Find effective UI design for project</li></ul>
3	08-02-16	Pre-coding Design: <ul style="list-style-type: none"><li>• User Interface and User flow diagrams</li><li>• Database structure</li></ul>

		<ul style="list-style-type: none"> <li>• Code structure</li> <li>• UML diagrams</li> </ul>
<b>4</b>	15-02-16	<b>Milestone: All background research should be complete by the beginning of week 4 so that development can begin</b> Finish Pre-coding Design Write front-end code modules for User Interface
<b>5</b>	22-02-16	Begin writing back-end code modules for functionality
<b>6</b>	29-02-16	Begin writing back-end code modules for database Work will continue on functionality modules
<b>7</b>	07-03-16	Write test cases Work will continue on functionality and database modules
<b>8</b>	14-03-16	<b>Milestone: A working solution for the project should be complete so that testing can begin</b> Complete unfinished modules of code Allotted time for additional functionality
<b>9</b>	21-03-16 EASTER	Test player functionality on PC Fix bugs and errors that surface from testing Allotted time for additional functionality
<b>10</b>	28-03-16 EASTER	Test GM functionality on PC Fix bugs and errors that surface from testing Allotted time for additional functionality
<b>11</b>	04-04-16 EASTER	Test player and GM functionality on mobile devices (This should be quicker as functionality will be reduced on mobile devices) Fix bugs and errors that surface from testing
<b>12</b>	11-04-16	<b>Milestone: All coding and testing should be finished by the beginning of week 12 so that my full time can be devoted to the Final Report</b> Compile notes from throughout project Take screenshots of completed application Start writing Final Report
<b>13</b>	18-04-16	Continue writing Final Report
<b>14</b>	25-04-16	Finish writing Final Report
<b>15</b>	02-05-16	<b>Milestone: Final Report should be submitted by 06-05-16</b> Review Final Report and check for errors