CS39440: Requirements Analysis

GAMEPILE

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1 - Introduction

This document presents the requirements analysis for the development of a video game collection management application, titled GamePile. This application is produced as part of the assessment for the CS39440: Major Project module and aims to provide users with a tool for effectively managing their video game collections.

The document lays out the groundwork for development of this application, dictating the planned scope, objectives and constraints. Functional Requirements map out the different parts of development, whilst Non-Functional Requirements address critical aspects to be considered *throughout* development.

Adherence to these requirements will produce a high-quality, feature-rich application.

2 - Functional Requirements

ID	Requirement Description	Mandatory?	Comments
FR01	**Game Management** — Users will be able to add, delete and edit games in the application, and these games will be displayed to the user.	Yes	
FR02	**Backlog Management** — Users will be able to see and view games that are marked as a part of the backlog.	Yes	Could be merged with FR03
FR03	**Progress Tracking** — Users can track their progress on a game, marking them as “abandoned”, “completed”, “playing”.	Yes	
FR04	**Sorting and Filtering** — Users can sort and filter games using either information about the game itself, or meta-information about the game (e.g. its tags/ status within the application itself).	Yes	
FR05	**Manual Game Entry** — The application will allow users to add games to the system by specifying data themselves.	Yes	This will be implemented early in development, to allow for vigorous testing.

ID	Requirement Description	Mandatory?	Comments
FR06	**API Integration** — The application will also allow users to add games via the use of an external API, allowing the quick addition of games to the system. If possible, multiple APIs will be available to choose from.	Yes	
FR07	**Social Sharing** — The application will allow users to export a visual representation of the games they have completed or have on their backlog, to allow this information to be shared with others.	No	
FR08	**Recommendation System** — The application will suggest games based on the users completed games and backlog, offering personalised suggestions on what games a user may enjoy playing next.	No	
FR09	**Desktop Application** — The application will be developed as a native desktop application. At the end of development, there will be available builds for the Windows and Linux operating systems.	Yes	

3 - Non-Functional Requirements

ID	Requirement Description
NFR01	**Usability** — The application should have an intuitive, easy to understand interface that is able to navigated by users with limited technical knowledge.
NFR02	**Performance** — The application should respond quickly to user interaction, and load game data efficiently - especially when considering the large volume of data the application could be dealing with.
NFR03	**Reliability** — The system should make sure to store data in a robust format, with measures in place to tackle potential data loss or corruption.

ID	Requirement Description
NFR04	**Compatibility** — The application should be compatible with the Windows and Linux operating systems.
NFR05	**Maintainability** — The codebase should be well-structured and well-documented, to aid in easy understanding of the code and (although not applicable for this project) future updates.
NFR06	**Interoperability** — As the application will be integrating with external APIs, relevant standards and protocols should be adhered to.
NFR07	**Localization** — Although the application will not be translated into other languages at this time, it should be easy for a theoretical translator to localize the application.