



**Faculty of Engineering and Applied Science**

**SOFE 3650U Software Design and Architecture CRN 44212**

**Group 20 Project Proposal for Video Game Website**

<b>Name</b>	<b>Student #</b>
<b>Rubbia Pasha</b>	<b>100702075</b>
<b>Alexander Campbell</b>	<b>100703650</b>
<b>Atharshan Kennedy</b>	<b>100590243</b>
<b>Joey Villafuerte</b>	<b>100759003</b>

## Objective:

Our project will be based on a Javascript game website in which there is a small, playable catalogue of games. Though this project will not be focused on the functionality of games, and more so focused on the overall systems that the website is built upon in order to highlight our architecture design knowledge.

## Functional Requirements:

- Many easy ways to login to the website such as through google, github, etc.
- Verification of email
- Link other social media accounts
- Ability to send a Message/Comment pre game
- Profile editing
- Setting Notifications
- Privacy Options
- Ability to change forgotten password
- Ability to receive email notifications
- Ability to recover forgotten username

## Non-functional Requirements:

- UI is easy to navigate and informative
- One login for everything available on the website
- Multi language support
- Login should load quickly and redirect to the previous page once the user is logged in
- Account Stats such as time played pre game and trophies

## Update version:

Functional Requirements	Non-Functional Requirements (Marking green: in constraint)
When an initial request to the server has been made, the website shall send the login page to the user. (Sys req)	An intuitive navigation for browsing games. shall be needed for user enjoyment of website (Usability)
The system should recognize if the user is accessing the website from mobile or desktop, and adjust accordingly. (Sys req)	A reliable connection to the website must be a high priority for user enjoyment of the website especially during high influx points during the day. (Reliability)

The website shall have sm options for sharing players scores and recently played games. [NOT DOING]	
The website shall have multiple ways of logging in that are visible to the user on the login page. (User req)	Website shall be accessible to all users at all times. (Availability)
When a user attempts to login, the data picked up by the system must be processed through a search query for login pass or fail to be presented to the user. (Bus req)	User information shall be private and inaccessible by anyone but the owner.(Security)
When a user types in credentials, the system should check for correct info and will perform counter measures to help with assisting problems. (Sys req)	Maintenance at a set time to push updates/fix any issues shall commence during down times. (Maintainability)
When the user gives unknown info, request the user to change or create an account and check for validity of the new account. (Sys req)	The website shall be able to handle multiple users at once, from varying locations. (Performance)
The website shall have a general login upon Player, Admin, and IT request. (Bus req & User req)	There shall be a backup database with information stored and updated every x interval to prevent loss of information. (Security)
Allow for Players and Admin to update their profile and website layout by accepting acceptable changes that were made. (User req & Sys req)	The server shall acquire an increase in size for high influx of people due to website popularity.(Scalability)
Websites must allow for users to create friend groups and allow for messages to be sent to other people in the community. (User req)[NOT DOING]	The website shall be able to have config changes for different applications of games. (Modifiability)
The website shall have an intuitive game search query for improved workflow. (Bus req)	The website shall allow users to access everything after logging in to the website. (Usability)
The system will keep track of user game data for leaderboard purposes when a user plays a game. (Sys req)	All web pages shall have 2 to 4 seconds of load time and all games shall have 2 to 5 seconds of load time. (Reliability)
When a user types a message the system must save the message for viewing purposes for others and users. (Sys req) [NOT DOING]	Website server shall be up and accessible to Admin and IT for the entire day. (Availability)
The website should allow for importing & deleting users' creations and exporting of other peoples games on user's request. (User req)	When the system detects new messages, push notifications to the user.(Reliability) [NOT DOING]
When Players want to share games a share function should be available to the Player. (User req) [NOT DOING]	The system allows Admin and IT to view problems and assist in fixing them alongside the system. (Supportability)
The system, upon user request, allows for privacy changes	Ban/timeout will happen if Admin is informed by the

to be made. (User req and Sys req)	system of unwanted activity from Players. (Security)
The system should moderate the website when detecting and not detecting unwanted behavior. (Admi fun)	When the user is idle the server will kick the user if inactive for more than 3 hrs.
Admin and IT must have privilege in managing accounts and user activity. (Admin fun)	
Allow Admin to have administrative privileges to other people's accounts for ban/timeout. (Admi fun)	
When IT requests server maintenance a response should go to all people that are registered users. (Sys req)	
Allow IT to analyze data for assessment on website health and problems that need to be fixed. (Sys req)	

### Updated ones

### Quality Attributes for the use case:

ID	Quality	Scenario	Associated Use Case
QA-1	Security	User sends wrong info to the system, during normal operation. System must detect who it is at all times and perform precautions.	ALL
QA-2	Availability	Website must always be up and be monitored for any down-time	UC-1, UC-5
QA-3	Performance	If server down-time occurs or there is any lag, IT needs to easily be able to view the history leading up to the crash in order to debug quickly	UC-4, UC-8
QA-4	Usability	General navigation of the website occurs. Website must be user friendly and easy to use.	UC-5, UC-9, UC-10
QA-5	Modifiability	New updates and bug fixes are being deployed to the website.	UC-5
QA-6	Testability	A new update is pushed to production and the general functionality of the servers are being monitored.	UC-4, UC-5, UC-8
QA-7	Interoperability	IT embeds new game from a different website	UC-5

**System Constraints for the use case:**

ID	Constraint
CON-1	The website shall be up and operating at all times
CON-2	The user will have reliable connection to website at all times
CON-3	User passwords should be secret and unavailable to all other users except the owner
CON-4	User information will be stored safely
CON-5	The website must support simultaneous usage from different systems
CON-6	The website should be accessible in multiple browsers, from multiple operating systems
CON-7	The database should have a backup that is constantly updated in order to prevent the loss of information