

# Project Initiation Document

PRCO304 – Computing Project

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## 1. Introduction

For the purpose of this Module PRCO304, I will be aiming to design, develop, test and deploy a complex web application. This application will provide a social and connective platform to its users, with the intention of joining users together in the form of event creation. More specifically, the application will allow users to create, share and advertise gaming sessions, targeting any video game platform. These gaming sessions that the user can tailor to their desired effect, will aim to bring organised users who are looking to play a specific game or platform title together. Whether this be for fun or for a specific goal. The application will focus on a user's profile, building and earning a reputation and awards for continued use and development of the system. The application will be comprised of the web application and a data store. Both of which will be fully developed and maintained by myself.

## 2. Background/Motivation

I was driven towards this idea of developing a complex web application because of my exposure to web development and server-side technologies during my placement year. I was eager to further improve my skills with in web development, with an emphasis on the server-side and relational database technologies. Due to this, I pondered a number of applications that I could develop for the web, all of which currently exist in one form or the other. So I was looking to create something that I could release to market and continue support long after this module, as such I began to research for other gaming session applications on the web. I was amazed that few if any fully sized systems actually existed that provided gamers with the connective ability I am looking to achieve. This does pose the following questions, has this ever been attempted before and failed? Is there a need/market for such a system? How could I market this?

I did however find smaller, similar systems that allowed users to connect and plan sessions like what I'm looking to develop; however they were much smaller and simpler and didn't provide much customisation or complexity. One example is on the system [trueachievements.com](http://trueachievements.com) which hosts a small gaming session system that is part of the bigger system, providing basic functionality, which if anything would provide a create great inspiration for the foundation of my system. During my research I was unable to find a web system that aims to provide the type of service I am looking to provide with this application. This makes me contemplate whether that is because there isn't a need for such a service, or rather simply no one has bothered to develop such a singular based system. As such I feel there is a great opportunity to expand on what currently exists on the market and draw a larger crowd by appealing to a larger, less restricted audience.

## 3. Project objectives

1. Allow users to create, share and complete the lifecycle of a gaming session
2. Implement a diverse kudos mechanism into the system, individual to the user
3. Provide substantial sharing capabilities with 3<sup>rd</sup> party platforms like Facebook, Twitter etc.
4. Design the system to be time zone independent, with no constraints.
5. Research and analyse the best suitable user interface for this system

6. To release a functioning alpha stage prototype, by 20<sup>th</sup> May 2016

## 4. Initial scope

1) The core fundamental process of the application is to provide users with the ability to create/host gaming sessions for any game on any platform with a potentially unlimited number of participants. Recruit users that would participate and ultimately complete the session. Disclaimer: my system wouldn't be responsible for the monitoring of the actual session, but instead just the organisation of the event, not extending beyond the bounds of the application.

2) Another core section of my application would be what I've dubbed the 'Kudos' system, which simply put is the section of the application that is responsible for building the users reputation, in the form of kudos points, badges and awards. Every action on the site, whether it's the completion of a gaming session, submitting user feedback, joining other sessions would carry some kudos points with it. That would be awarded to the player, building on their individual profile status.

3) In order to grow my application I have to provide users with the ability to integrate with existing systems, like Facebook and Twitter etc. This not only improves advertise for my system, but it would allow users to recruit new users to participate in the session(s) they have created. It's a logical step for any community driven application, which is so crucially dependent on users. I would be looking to achieve this by allowing users to share gaming sessions via their social media platforms or via email.

4) The application as I have mentioned is based on the creation of gaming sessions, which in its own right requires a start time to be specified. Because of this I need to consider the fact the other time zones exist, and one persons set time wouldn't necessarily match that of a participating member, without some conversion based on the end users time zone. I already know how I will tackle such an issue, hopefully avoiding any potential issue later on in the project.

5) Development of the client needs to be as important as the server-side. Because this a publically facing site, it needs to have a really smooth and user friendly UI and a simplistic UX. So I will need to spend a reasonable amount of time developing the UI to improve the experience for my users. Without this the system may never grow. I will be investigating the suitability of several font-end frameworks, such as: Bootstrap, Foundation and Semantic UI.

6) My aim is to have a fully functioning prototype released to the live environment, in what would be deemed the alpha or beta stage. This is so that I can monitor the software in real world use, and track the analytics to analyse and collect data on the issues and uses of the system. Realistically though, I am not going to push for a release purely for the sake of it. I would prioritise the development and quality assurance, long before I would release the application. As such this should be deemed a desired (optional) objective.

## 5. Method of approach

The development process will likely follow an incremental approach, focusing on the core functionality first, then moving on to the secondary, optional and 'nice to have' sections. To elaborate, the application will need to allow users to create accounts and login. It would also need to be able to maintain their own accounts and profiles. Next I would need to develop the session implementation; the creation, recruiting, completion etc. Then focusing the feedback development side, as users accessibility to certain functionality will be dependent on the social standing that has been built based on other users feedback of them. A user notifications and emailing system would then have to be implemented. Focus on the UI would then become a priority. Further development is subjective from then on. Ultimately the aforementioned stages would have to be regarded as the necessary stages in order to produce a minimal viable product.

I would be looking to employ Microsoft's ASP.NET MVC and the Entity framework for the development of the server-side. I would also be using SQL Server for the relational data store. This is because I am experienced with these technologies, along with the fact that I would be looking to develop with Visual Studio and host with Azure. My skill set revolves around Microsoft's technologies and I have a great interest in pursuing my development capabilities within this area; this is why I have chosen to carry this project forward in this way.

On the client, I would be developing using HTML5, CSS3, jQuery and Bootstrap to provide the initial front facing UI, with the potential of stripping back bootstrap due to its size and customisation limitations, if the need arises.

## 6. Initial project plan

Project Plan			
Stage	Est. Start Date	Est. Completion Date	Deliverables / Outcomes
1. Initiation	25/01/2016	01/01/2016	PID
2. Requirement gathering	01/02/2016	08/02/2016	Requirements document
3. Project creation & source control setup	08/02/2016	10/02/2016	Templated (blank) project created and added to source control
4. Architecture and core functionality implementation	11/02/2016	14/04/2016	Foundation development
5. Primary & secondary functionality	01/03/2016	14/04/2016	All labelled primary and secondary functionality implemented
6. UI & UX	22/03/2016	14/04/2016	Development of the UI and UX (client-side)
7. System and user acceptance testing	14/04/2016	04/05/2016	Entire system testing, bug tracking/logging documentation

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8. Release to production	05/05/2016	06/05/2016	System 'released to live' with Azure and resolvable domain
9. Documentation and Final report review	09/05/2016	16/05/2016	Complete anything outstanding and submit report

## 6.1. Control plan

The following PRINCE2 control techniques will be employed:

- Highlight reports weekly until Easter and at the end of each stage thereafter
  - To include stage reviews at stage completion
- Weekly review meetings with project supervisor until Easter and as needed there-after, to review progress, plans and products
- Risk management (see Section 7)
- Communication plan (see Section 6.2)
- Quality plan (see section 8)
- Exception reports and plans as necessary

## 6.2. Communication plan

Review meetings will be held with the supervisor in line with the Control plan. Further ad-hoc communications will take place as needed.

## 7. Initial risk list

Initial Risk List	
Risk	Management strategy
Scheduled overrun	Contingency has been introduced into the project plan. Highlight reports and review meetings will provide a regular monitoring of schedule. An exception plan will be developed, and approved by the project supervisor, in the event of more than 1 week's slippage
Other commitments	One other module will be running parallel to this module, as such it will require time away from this project in order to be completed. A solid time management plan, will help me to stay on track with all the other commitments I have.
Financial	Funding the hosting platform. Aim to incorporate a form of monetisation to cover costs of hosting, outside that of the free (basic) platform that is available.

Complexity	Follow a strict plan of action, implementing core functionality and providing a minimum viable product (MVP)
Difficulty learning/using the development technologies	Working with the hosting platforms is new to me so time during the testing phases will focus on deployment to testing environments.

## 8. Initial quality plan

Initial Quality Plan	
Quality check	Strategy
Requirements	Continual unit testing will occur during the major development phases and during the quality assurance testing phase.
UI Design validation	The design will be checked (within Stage 5) against requirements compliance, HCI guideline compliance, screen-design acceptance. I will be selecting a number of technical and non-technical users to assess the system and provide feedback as appropriate.
User acceptance testing	This will occur during stage 7.