Project Proposal

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Fantasy Hurling Game

*with* Social Media Capabilities

19/10/2014

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**1.0 Project Overview**

**1.1 Project Title:**

Research Application Development Frameworks for JEE Development, and Develop JEE Prototype with Framework

**1.2 Project Type:**

Research and JEE Prototype

**1.3 Project Client:**

**1.4 Project Supervisor:**

Dr. Geraldine Gray

**1.5 Project Manager:**

David Kelly

**1.6 Project Timescale:**

17/9/2015 - 30/4/2016

**2.0 Executive Summary**

This proposal explores the potential gap in the market for a fantasy hurling game. The GAA have recently signed a three-year contract with Sky Sports and their coverage of hurling has the possibility of attracting fans worldwide. A fantasy hurling game could capitalize on this interest and give fans a chance to interact via a social media game.

Research conducted on already existing fantasy sports games not only shows improved website views but also a direct relationship with social media. Estimated data from [www.alexa.com](http://www.alexa.com) shows that ~79% of visitors to [www.premierleague.com](http://www.prmierleague.com) visit their fantasy football sub domain. Further investigations reveal that ~13% of visitors upstream directly from social media websites Facebook and Twitter.

The official GAA Facebook page has over 126k likes. Counties like Dublin and Donegal have over 30k likes between them. The opportunity is there to create and implement a fantasy hurling game to capitalize on the social media interest. The GAA website has a bounce rate of ~44% meaning visitors to their website don’t visit any subdomain within the website and leave via the homepage.

The proposal outlines and describes a way of creating and implementing an online fantasy hurling game with social media capabilities that can be successful and fill a gap in the market. The fantasy hurling game could be sold to the GAA on the basis of improving their website page views and time spent by users on the site. The fantasy hurling game would also create an outlet for the GAA and their marketing potential on social media websites.

**3.0 Introduction**

The aim of this project is to research four popular Java Enterprise Edition compatible frameworks and develop a JEE prototype application from one of the researched frameworks. The Java EE platform provides an API and runtime environment for developing and running large-scale, multi-tiered, scalable, reliable, and secure network applications [1]. With many multifaceted components making up a JEE application it is easy for a developer to be obstructed from creating the application they wish and can find themselves bogged down in the technical processes of simply getting the application to function.

A framework’s primary purpose is to aid and ease an applications development process. It should allow for an application to develop quickly and easily and should result in a superior finished application [2]. Upon researching these frameworks, I will evaluate their core features and analyzing how each framework is suited to be implemented within a JEE application.

I will develop a JEE prototype application using one of the frameworks I feel can further my understanding. While developing the application I will document and compare how the framework provides an advantage over the standard Java API, further I will asses the learning curve involved with implementing the chosen framework.

**3.1 Background:**

The purpose of this proposal is to examine a potential gap in the market for a fantasy hurling game with social media capabilities. Social media games are largely constituted of people who already know each other in real life and share close connections. Therefore a fantasy hurling game has the potential to offer a unique and personal outlet to connect with friends and hurling fans worldwide.

Research gathered from Facebook proves a social media presence for the Gaelic Athletic Association (GAA). Data from leading GAA Facebook pages are shown below.

* Official GAA - 126,082 likes [1]
* Official Dublin GAA - 68,341 likes [2]
* Official Donegal GAA -15,162 likes [3]
* Official Kerry GAA - 9,997 likes [4]

The GAA has recently signed a three-year contract with Sky Sports [5]. Sky Sports will now broadcast 20 live hurling matches worldwide. The online popularity of the GAA in social media, coupled with Sky Sports global coverage could create greater interest from fans inclined to participate and interact through a social media hurling game.

**3.2 Existing Technologies:**

In order to understand this project we take a look at similar and existing games on the market both for the GAA and other sports.

There is currently no existing fantasy hurling game online. We must look at something similar in Gaelic football. [www.fantasygaelic.ie](http://www.fantasygaelic.ie) [6] offers a platform for users to play a fantasy football game online. Currently [www.fantasygaelic.ie](http://www.fantasygaelic.ie) has no social media interaction but allows users to join leagues and compete against one another. Users can update their fantasy teams weekly and can see their progress in the league as the season progresses.

An existing game that is closer to the aims of this project is [www.fantasy.premierleague.com](http://www.fantasy.premierleague.com) [7]. This fantasy game was created for the Barclays Premier League. Users are able to challenge each other in head-to-head competitions but again fantasy football for the premier league does not currently have existing social media capabilities. Users can create an account, login, create a team, join a league, challenge head-to-head.

**4.0 Main Research Questions**

**4.1 Is there a potential gap in the social media market for a fantasy hurling game?**

With over 175,000 people on Facebook interested in the GAA. With a worldwide audience now able to watch live hurling games. Is there enough interest to justify the creation of a fantasy hurling game?

**4.2 Could a fantasy hurling game create revenue for the GAA?**

Could a successful fantasy hurling game be sold to the GAA, to capitalize on their social media presence and create revenue through their website?

**4.3 Could a fantasy hurling game create social media interest for the GAA?**

If a successful implementation of this project was achieved, Could it generate interest on social media and subsequently expand the number of people engaging with the GAA?

**5.0 Benefits**

**5.1 User Benefits:**

This project has potential benefits for hurling fans through social media. Allowing users to interact and compete with each other in a playful environment. A fantasy hurling game allows fans to get involved with current hurling squads and players. Users can benefit socially from chatting with one another through the chat feature within the game. Users can find fellow hurling fans in their local area by using the gps feature on the site to challenge other users to head-to-head matches.

**5.2 GAA Benefits:**

This project could benefit the GAA by giving fantasy hurling users an instrument to interact with the GAA website. Research from [www.alexa.com](http://www.alexa.com) shows that [www.gaa.ie](http://www.gaa.ie) (the official website for the GAA) has a bounce rate of ~44%. This means that ~44% of all traffic that views the GAA website, leaves via the first page they visit. This leads to a loss in potential add revenue and interest in the GAA website. If the GAA implemented a successful version of the fantasy hurling game, results could be similar to the affect the premier league fantasy football game has had on [www.premierleague.com](http://www.premierleague.com).

Statistics from [www.alexa.com](http://www.alexa.com) [8] related to [www.fantasy.premierleague.com](http://www.fantasy.premierleague.com) are shown below. Data from [www.alexa.com](http://www.alexa.com) is not 100% accurate and is estimated to within 10%.

**User subdomain visits (part of the site most visited by users)**

* Fantasy football subdomain - ~79%
* Index / Homepage - ~30%
* Login - ~10%

**User upstream sites (sites visited immediately before)**

* Facebook - ~10.4%
* Google - ~9.9%
* Twitter - ~2.4%

Data shows that a successful implementation of a fantasy game can attract page views. Nearly 80% of all user traffic on [www.premierleague.com](http://www.premierleague.com) visits the fantasy football sub domain. This interaction leads to visitors engaging with their website and reducing the bounce rate. A successful game also increases the time visitors stay on the website. On average a visitor to [www.premierleague.com](http://www.premierleague.com) spends over 7 minutes on their website.

Both these factors are used to determine advertising revenue for a website. A website that engages visitors and attracts visitors to spend time on their site can increase the price of advertising. Even if a website like [www.gaa.ie](http://www.gaa.ie) didn’t wish to generate ad revenue from their website. Creating an atmosphere in which visitors interact and engage with their website would be a benefit in itself. The bounce rate data for [www.gaa.ie](http://www.gaa.ie) shows that over 40% of visitors leave the site via the page the entered on.

Statistics from [www.alexa.com](http://www.alexa.com) [9] related to [www.fantasy.premierleague.com](http://www.fantasy.premierleague.com) and [www.gaa.ie](http://www.gaa.ie) are shown below. Data from [www.alexa.com](http://www.alexa.com) is not 100% accurate and is estimated to within 10%.

**Visitor bounce rate**

* [www.premierleague.com](http://www.premierleague.com) - ~17.4%
* [www.gaa.ie](http://www.gaa.ie) - ~44%

**Visitor time on site**

* [www.premierleague.com](http://www.premierleague.com) - 7:17
* [www.gaa.ie](http://www.gaa.ie) - 3:17

**6.0 Feasibility**

When under taking a project of this scale questions must be asked in order to understand if this project is feasible.

* Does the team have an understanding of the technical requirements necessary?
* Can the team create this project in the time allocated?
* Can measures be taken to aid the progress of this project?
* Will the project fit within the allocated budget?

**6.1 Does the team have an understanding of the technical requirements necessary?**

The team came across many technologies that can be used to successfully create this project. The team of three have the required technical skills to design and build a website backed with a java server using technologies such as.

|  |  |
| --- | --- |
| * HTML * CSS * XML * JSON * AJAX | * JQuery * PHP * JavaScript * JAVA |

**6.2 Can the team create this project in the allocated time?**

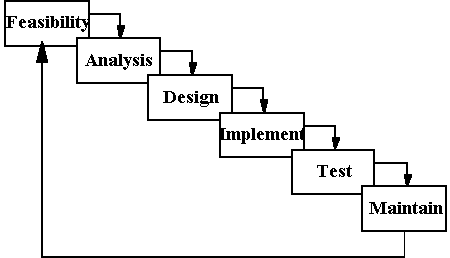
|  |  |  |
| --- | --- | --- |
| TASK | DATE | CHK |
| **Phase 1** | **2014** |  |
| Market research | 22/9 - 26/9 |  |
| Evaluate Existing games | 22/9 - 26/9 |  |
| Research copyrights | 22/9 - 26/9 |  |
| Research suitable software | 29/9 - 03/10 |  |
| Asses project feasibility | 29/9 - 03/10 |  |
| Select SDLC | 06/10 - 10/10 |  |
| Create specifications | 06/10 - 10/10 |  |
| Select software | 06/10 - 17/10 |  |
| Propose staff tasks | 13/10 - 17/10 |  |
| Evaluate task timescales | 13/10 - 17/10 |  |
| Design website and logo | 20/10 - 31/10 |  |
| Create UML | 27/10 - 14/11 |  |
| Design database | 17/11 - 28/11 |  |
| Assign staff tasks | 1/12 - 5/12 |  |
| Create website | 8/12 - 21/12 |  |
| **Phase 2** | **2015** |  |
| Implement JSON & AJAX | 26/1 - 27/2 |  |
| Create database | 26/1 - 27/2 |  |
| Link database to website | 02/3 - 13/3 |  |
| Document task completion | 8/12/14 - 13/3 |  |
| Select testing model | 16/3 - 20/3 |  |
| Test system iterations | 23/3 - 17/4 |  |
| Select final iteration | 20/4 - 24/4 |  |
| Deploy system | 27/4 - 01/5 |  |

The team has created a task timeline to keep a record of all the tasks and the time each task is allocated. Breakdown of tasks and giving each task a completion date accommodates workloads and proves the feasibility of this project.

**6.3 Can measures be taken to aid the progress of this project?**

Incorporating a systems development life cycle (SDLC) in to our project can help designate work. Allocating tasks to certain aspects of the project process can help the team distinguish tasks. Tasks can then be delegated to team members depending on their ability to in specific areas of the project. Our team has chosen to use the Waterfall model.

The waterfall model separates the project in to five stages. Each phase of the model must be completed before progressing on to the next phase.



**Advantages**

* Simple and easy to understand and use.
* Easy to manage due to the rigidity of the model – each phase has specific deliverables and a review process.
* Phases are processed and completed one at a time.
* Works well for smaller projects where requirements are very well understood.

**Disadvantages**

* Difficult to move back stages
* No working software is produced until late during the life cycle.
* Not a good model for complex and object-oriented projects.
* Poor model for long and ongoing projects.

**6.4 Will the project fit within the allocated budget?**

Currently there is no budget for the project. This project is merely a demonstration of how a social media game system can be created and implemented. Currently with no competition for a fantasy hurling game on the market, a stylish, user friendly game that can be implemented easily could be sold to a potential client like the GAA.

**7.0 Proposed Methodologies**

**User**

The users experience will begin with creating an account and logging in to their profile. Once the user is within their profile they will be given the option to create a fantasy team. Each user will get a starting budget of €100m and must select a team of 20 players (1 goalkeeper / 14 outfield starters / 5 substitutes). Each player will have a valuation relative to his real life ability. Users will only be able to create a team within their allocated budget of €100m.

The user will have the option of allowing the use of their GPS coordinates to find fellow fantasy hurling users in their area. Users can then message with each other, invite users in to a league or challenge each other to head-to-head matches.

* Creating an account
* Logging in
* Customizing a profile
* Creating a team
* Creating a league
* Inviting users
* Challenging users
* Messaging services

**Administrators**

The administrators will maintain the functionality of the system, from the website interface on the client side to the up to data on players after each game week. The valuation of a player in the fantasy market shadows his performances of the real life. After every game week the administrator will update the data on players. Using this data the system will automatically adjust the users fantasy team in their respective leagues and their head-to-head matches.

* Website maintenance
* Updating player price
* Updating player score
* Updating available players

**8.0 Expected Results**

With no current social gaming outlet for hurling fans this project could prove fruitful. The potential gap in the market could exist for a game like this to succeed. A successful game could function by itself but could also be sold to the GAA and implemented on their website in a similar fashion to the premier league fantasy football.

The GAA could be interested in integrating a social media game on their website to attract the number of followers they have on social media. A fantasy hurling game could increase traffic on the GAA website and generate user interaction, leading to increased advertising revenue.

With social media friends challenging, debating and boasting about their fantasy team though various social media outlets, the GAA can reap some free publicity and advertising for upcoming games.

**8.1 Successful Project**

A successful implementation of this project would create an exciting social environment for hurling fans. The fantasy hurling game would allow users to post their results and scores on social media sites. To be successful users should find the website interface easy to navigate. Playing the game should be intuitive and simple. Selecting to use your GPS coordinates to find other users in your area should be fast. Users should be able to retrieve their fantasy teams results on the final day of a game week. The server should be responsive and load player information quickly. The user-to-user messaging service should be used frequently, for both challenging and talking about hurling. The system should be modular and deployable for a number of different sports.

The game should be complete and function well enough to potentially be sold to a third party, namely the GAA. With out deconstructing the system the game could be implemented on to a new website with little disruption. This would make the game profitable and marketable. This would be the ultimate goal and a truly successful project.

**8.2 Successful System**

A successful system would implement all the functionalities outlined in the methodology. Users could create and account, login, customize a profile, create a team, create a league, invite users, challenge users and use the messaging features within the system. The client side of the system would interact with the database. Data related to players scores and results would dynamically update on the client side after being updated by the administrator on the server. However if the game failed to attract interest from gamers and investors, the project may prove to have been created in vain. A successful system could be modified to adapt to different sports but without users playing the game the project would be considered incomplete.

**8.3 Failed Project**

A failure to create a functioning system that allows users to play the game would be considered a failed project. The project aims are to create fantasy hurling gaming system with social media capabilities that can operate as a standalone website. Potentially if the system created was successful and the market was there for hurling fans, users of social media and an investor to interact and back the game, the project would be considered successful. Failure to create a functioning system however has a knock on affect to potential investors. How can an investor buy a system that does not exist? A failed project can only occur if the team fails to build the system.

**8.4 Incomplete Project**

Failure to complete the system before the deadline could be considered a failed project. The difference between incomplete and failed is that the team mismanaged the time allocated to create the project. The system could still be completed in future iterations. If the system is completed outside of the allocated time and the market still exists for a fantasy hurling game with social media capabilities, the project may not be considered failed and could still potentially be distributed at a later date.

**9.0 Conclusion**

In order to begin the analysis phase of the project the team must research all the data relevant to the proposed fantasy hurling game with social media capabilities, Information about social media interaction between the GAA and hurling fans. With no current game similar to the proposed project available, there appears to be room in the social media gaming market for a fantasy hurling game to exist and benefit fans of the sport and the organizers.

Fans can use the game as an outlet to interact with fellow hurling fans and feel involved in their sport. The GAA can use the game to attract visitors to their website. The project would need to consult the GAA over licensing laws and complying within the existing copyright laws.

The team involved has all the necessary skills to implement this project. Referencing the task time line in 6.2, the project is feasible within the allocated time. The most difficult parts of the project will be creating the website and updating the real life player ratings on the database.

**10.0 References**

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