**TREASURE HAUNT**

Project Charter

Version 0.0

*Approval of the Project Charter indicates an understanding of the purpose and content described in this document. By signing this document, each individual agrees work should be initiated on this project and necessary resources should be committed as described herein.*

**DOCUMENT NAME:** Project Charter

**VERSION:** 0.0

**REVISION DATE:**

**DATE:** 2013-05-21

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| **Approver Name** | **Title** | **Signature** | **Date** |
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# **Section 1.0** **Project Overview**

## 1.1 Problem Statement

The Citadel project is concerned with developing a game application designed to be available for people in the perimeter of Citadel Hill while attending the Nocturne Festival.

## 1.2 Project Description

Our project uses the Citadel Hill area with its natural and physical characteristics as virtual obstructions as a confine for a virtual geolocation-aware multiplayer game, where players compete with each other to collect the most amount of scattered and hidden gold coins within a given timeframe while avoiding hidden trap doors.

## 1.3 Project Goals and Objectives

* Can immediately engage.
* Can drop off/ join in mid stream; however, players may only join the next occurring game and must wait until that game-play interval begins to play the game).
* Uses surroundings (walls represent physical-virtual divide, key visible landmarks in both spaces).
* Projection as conduit (linking physical and virtual, linking present and past).
* Fun for both audience and players.
* Visually interesting.
* Game within Narrative.

## 1.4 Project Scope

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| **Project Includes** |
| Game-play initiation notification upon entering boundaries. |
| Game-play expulsion notification upon exiting game boundaries. |
| Warning notification upon approach of game boundaries. |
| Tutorial upon first use, and accessible from home screen. |
| Calculated user-specific statistics including: High Score, Total Treasure, Deaths, Best Game. |
| Geolocation based hidden treasure that is depleted from the virtual map by participants upon a player entering specific geofences within the application playable boundaries and responding appropriately to the application when visually and audibly notified. |
| Audio and visual notification upon accumulating treasure and ghosts. |
| Action required by user upon encountering treasure in order to collect it. |
| Hidden ghosts in partitioned “ghost-zones” on the map that deplete the life of players upon entering specific geofences within the application playable boundaries. |
| Higher valued treasure hidden within “ghost-zones”. |
| Equal player to collectable treasure ratio calculated before the beginning of each game. |
| Game map displaying “ghost-zones”, game boundaries, and player location displayed during game play. |
| Displayed countdown until game start. |
| Timed intervals of game-play. |
| User ability to join next possible game. |
| Player ejection from game upon exiting game boundaries or depletion of life. |
| Player life, treasure accumulation and time remaining in game displayed during game play. |
| High score leader board displayed at the end of a game specific to the game and overall. |

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| **Project Excludes** |
| Ability to join and/or form teams during game play. |
| Social media integration. |
| Ability to fight or defend against ghost attacks. |
| Ability to take treasure previously collected by other players. |
| Ability to start playing at any moment. |
| Visual display of all players on the game-play map. |
| Precise and synchronous player location displayed during game play. |

## 1.5 Critical Success Factors

* Losing server connection.
* Insufficient geolocation retrieval accuracy.
* The destruction of Halifax.
* Asynchronous data updates on the server.
* Un-timely completion of determined milestones.
* Uncompleted test runs.
* Lack of team coordination and individual contribution.
* Bad weather during Nocturne Festival.

## 1.6 Assumptions

* Android API, and Google play services, server connection availability, GPS coverage, Participants with access to Android phones with minimal of 3.0 version, access to a server and computer.
* API documentation, access to SVN, Access online collaboration platforms, access to a suitable IDE, access to a database, access to the Citadel Hill area.
* 90 000m^2 playable area within Citadel Hill, Optimistically support 200 participants per round, playable by young and old participants.
* Group members will coordinate and be informed of group meetings, milestones, or other events via Google Calendars and the Facebook group page, Documents and source code will be available for viewing and contribution via online resources.
* Group members will attend all courses and labs that they can. group members will notify the group if they are not able to adhere to the agreed upon schedule prior to all meetings, labs, and due dates. All milestones/deliveries will be completed by all group members in a timely sequence.

## 1.7 Constraints

* Precision of geofences and player geolocation.
* Maximum number of players during a given game.
* Lagging response to player movement due to server and networks.
* Exclusion of potential users without access to compatible android devices with data plans.

# **Section 2.0** **Milestones**

## 2.1 Project Milestones

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| **Milestone/Deliverable** | **Target Date** |
| Database Creation | 24/05/13 |
| Emulator and Server | 26/05/13 |
| Incorporate User Story 1 Features | 01/06/13 |
| School Field Test Play Run | 02/06/13 |
| Version 0.0 Testing and Debugging | 03/06/13 |
| Iteration 1 | 10/06/13 |
| Incorporate User Story 2 Features | 17/06/13 |
| Version 0.1 Testing and debugging | 04/07/13 |
| Iteration 2 | 08/07/13 |
| Incorporate User Story 3 Features | 15/07/13 |
| Citadel Hill Test Play Run and Final Server | 16/07/13 |
| Final Artwork | 21/07/13 |
| Version 1.0 testing and debugging | 22/07/13 |
| Iteration 3 | 29/07/13 |

**Section 3.0** **Project Organization**

## 3.1 Team and Stakeholders

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| **Name** | **Role** | **Email** |
| Derek Reilly | Main Client | reilly@cs.dal.ca |
| Daniel Yule | Project Technician | yule@cs.dal.ca |
| Cagri (Charlie) Mumcuoglu | Architect, Documentation | cagri@cs.dal.ca |
| Kristina Pierce | Architect, Designer | pierce@cs.dal.ca |
| Hongyi Liu | Testing/debugging | emlhy66@gmail.com |
| Shuwen Ruan | Developer, Database Administrator | [ggopcceop@gmail.com](mailto:ggopcceop@gmail.com) |

## \* Although Shuwen holds the title of developer, all group members will be expected to produce code for the application, as well as contribute to the project documentation.

## 3.2 Roles and Responsibilities

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| **Role** | **Responsibility** |
| Architect | High-level design choices and dictates technical standards, including software coding standards, tools, and platforms. |
| Developer | Produce working code. |
| Designer | User interface design and usability. |
| Testing | Play testing, debugging, design feedback and suggestions. |
| Database Administrator | Create and structure suitable database. |
| Main Client | Approve or reject the application, Provide necessary resources to project team. |
| Project Technician | Provide guidance, and evaluation of project team work. |
| Documentation | Make the technical details available and accessible to the community. |

## 3.3 Project Facilities and Resources

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| **Resource Requirement** | **Responsibility** |
| Citadel Hill | Testing application final versions |
| School Field | Testing early application versions |
| 1681 Walnut Street | Project group work and meetings |
| Android phones running minimal of version 3.0 | Testing and running the application |
| Computers (capable of running windows) | Writing code and documentation, finding online resources, coordinating project work |
| Photoshop | Creating custom application artwork |
| Server | Communication between the application and the database |
| SVN | Code version control |
| IDE | Application builds, compiling, testing |
| Database | Management, and retrieval of application data communicated via the server |

# **Section 4.0** **Glossary**

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| **Term / Acronym** | **Definition** |
| Project Charter | A document issued by the project initiator or sponsor that formally authorizes the existence of the project, and provides the project manager with the authority to apply organizational resources to project activities. |
| SVN | Subversion (version control system) for software. |
| IDE (integrated development environment) | A software application providing resources such as a [source code editor](http://en.wikipedia.org/wiki/Source_code_editor), [build automation](http://en.wikipedia.org/wiki/Build_automation) tools, and a [debugger](http://en.wikipedia.org/wiki/Debugger) to facilitate the development and management of an application. |
| API (Application programming interface) | A [library](http://en.wikipedia.org/wiki/Library_(computing)) including specification for [routines](http://en.wikipedia.org/wiki/Subroutine), [data structures](http://en.wikipedia.org/wiki/Data_structure), [object classes](http://en.wikipedia.org/wiki/Class_(computer_programming)), and variables to be used and referenced during the development of an application. |
| Ghost-zone | A zone partitioned within a geo-fence wherein application users are subject to encountering non-visible ghost objects resulting in depletion of a players life during game-play. In addition to encountering ghosts in the ghost-zone, players may also encounter higher valued treasure that is not present in non ghost-zones within the application game boundaries. |

# **Section 5.0** **Revision History**

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| --- | --- | --- | --- |
| **Version** | **Date** | **Name** | **Description** |
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# **Section 6.0** **Appendices**