Goals and Requirements

IPFW Senior Design team 5

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Revision History

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| **Date** | **Version** | **Description** | **Name** |
| 09/01/2016 | 1.0 | First draft | Daniel Johnson |
| 11/9/2016 | 2.0 | Revised for Research App | Daniel Johnson |
| 12/14/2016 | 3.0 | Added additional goals and requirements | Asad Ashur |

**The overarching goal of this project is to obtain a comprehensive view of VR technology and tools, and explore development techniques.**

* Survey available VR applications/experiences, collecting relevant data.
* Gain knowledge and experience using Oculus and Android SDK packages.
* Organize data in a relational database and design access tools to perform queries.
* Apply learned concepts of Human Computer Interaction to a simple data-entry application.
* Adhere to industry standards for relational database design.
* Deploy and test applications on Gear VR platform, using Oculus Utilities and Unity Engine.
* Design and implement a fully-featured VR experience.
* Write a design document for the game that we want to create with full description and game design.
* Create the best user experience possible for our game based on research
* Conduct pilot testing for our game with other individuals

**Requirements to show the realization these goals are as follows:**

* Create survey artifacts and collect data in central repository for analysis (database).
* Exhibit proficiency debugging and deploying Unity Applications.
* Desktop application for research data entry should meet the following requirements:
  + Windows platform (Dot NET 4.5)
  + Storage of data in a local database file.
  + Intuitive data entry and display on a per-application basis.
  + Flexible search feature.
* Effectively analyze data from research database
  + Create relevant graphs and trends from the data
  + Organize data in a comprehensive report
* Deploy a scene to the Samsung Gear VR platform with the following key properties:
  + Controls and mechanics that ensure user comfort (no motion sickness).
  + Creative use of available mechanics that utilize strengths and consider weaknesses of the target VR platform.
  + Maintain smooth head-tracking throughout entire experience.
  + Eliminate technical glitches that could break immersion.