<VURAL>

SPECIFICATION DOCUMENT

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<1.0>

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Document Version History

Date	Version	Change Summary
18/6/2017	0.1	First Draft
23/6/2017	1.0	final for hagana

1. Introduction

1.1 Goals

This document is meant to describe and lay-out the project I am presenting this year to complete the *Gvahim* program.
This document is intended for anyone who wants to get background information about my project, in this document I will detail the features my project will provide.

1.2 The Product

The product I have decided to make Is a location based augmented reality messenger. As opposed to traditional messengers, Vural is location based, this means that the user will only be able to view messages sent to them when they arrive at the location where the message was sent to. The location aspect of Vural adds a new dimension to messaging that was previously absent. In addition, Vural allows you to send and view messages in augmented reality. This includes 3D emojis with animations, 3D Text. When a user arrives at the location of a message he will be notified and through Vural he will be able to view the message in augmented reality. The possibilities added by this new way of messaging provided by Vural are limited only by the user's imagination. The name "Vural" comes from a combination of the words Virtual and Mural, describing how Vural turns the entire world into a Virtual Mural for everyone to enjoy.

1.4 Summary

In this document I will describe my projects intended audience, functionality as well as its requirements.

2. General Description

2.1 Functionality

- send AR messages to users
- send AR messages to chat
- receive messages when you are near them
- view messages in AR

2.2 Intended Audience

My apps intended demographic is roughly, snapchat users - people that use messaging for fun.
2.3 Main Requirements

- Must have camera
- Must have internet access
- Must have GPS functionallity

2.4 Assumptions and dependencies

- Must run on an android kitkat 4.4 and newer.
- Device must have bluetooth capability.

2.5 Market Situation Analysis

There are some products on the market that do simillar, namely, wallame - an app that allows you to draw on walls in AR so other people can view it. The app was not a big success. I believe that is because everything people wrote was public and that intimidated people.

3. Detailed Requirements

3.1 Functionality Requirements

- Send messages to users and chats at a certain location.
- View messages in AR when you arrive at a location.

3.2 Requirements of External Interfaces

3.2.1 User Interfaces
- Users will have a GUI from which they can access all of the apps functions.

3.2.2 Hardware Interfaces
- The app will use the camera to present to the user a virtual environment with the message in it

3.2.3 Software Interfaces
- The program is split into 3 parts, Server, Client, Unity. The client sends unity the location, model id and text to prevent to user.

3.2.4 Communication Interface
- The client sends the server messages with details and the server takes care of them and returns a response.
- The client will receive its location with GPS.

3.3 Non-Functional Requirements

3.3.1 Performance Requirements

- Users should be able to send and receive data quickly.
- Processor must be fast enough to deliver a reliable AR experience

3.3.2 Reliability Requirements

- All data should get to the destination reliably.

3.3.3 Availability Requirements

- Network should be available at all times

3.3.4 Security Requirements

- User data should be encrypted and non-traceable.

3.3.5 Maintainability Requirements

- Users should be able to receive updates from the google play store.

3.3.6 Portability Requirements

- The app will run a device and communicate with the server wirelessly.

3.4 Database Requirements

- A list of all the users
- A list of all the chats
- A list of messages