FACULTY OF ENGINEERING AND PHYSICAL SCIENCES

DEPARTMENT OF COMPUTER SCIENCE

User Acceptnace Test Manual
Group 3

COM2027 Software Engineering
User Acceptnace Test

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Version 0.1

May 15, 2017

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May 15, 2017

Executive Summary

Copy and paste the “executive summary”

Contents

1 Problem description and proposed solution

Our task is to create an application tackling the "Gamification of dementia". We are to make an application that can be used by either dementia sufferers and/or their carers which can be a game, assisted living or disease tracking etc.
As a group, we decided to make our application a game for those that have dementia. It will test the user's short-term memory, as through our primary research, we found that dementia patients struggle with making short-term memories.
Our application will have a restaurant theme, making it a fun, and bright application to use. The user will be able to customise the application to suit them by changing the colour scheme. We will use the GPS to show users of our game from around the world, and get the user's location. The gyroscope and accelerometer will also be used. Shaking the device may reset the game.

2 Instructions

2.1 Test Instructions

1 Accept Terms and Conditions when application is opened.

2 Register (if new user) then log in.

3 After successful login, view Menu screen

4 Select desired options from Start screen.

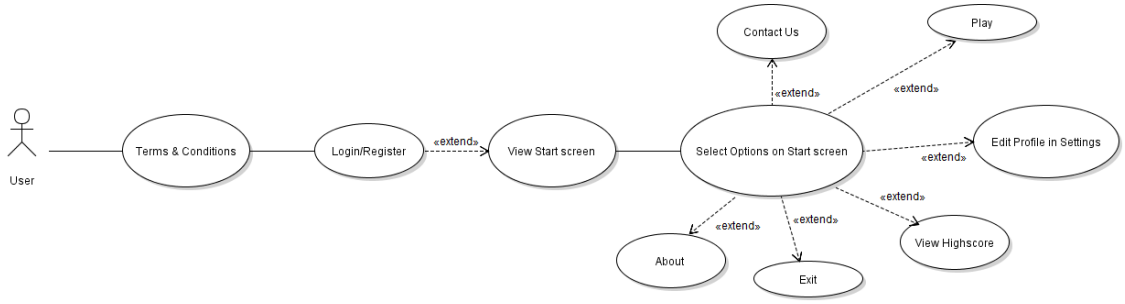
5 "Play" will start the game

6 "Contact Us" allows user to get in touch regarding the app via email.

7 "High Scores" allows user to view their high score table

8 The "?" button tells the user about the app

9 The Settings icon is currently not linked to anything.



2.2 Installation

1 Download the APK file on your computer.

2 Connect the android device to your computer

3 Copy APK file to the android device.

4 Install the APK by clicking on it.

5 Once its installed the application is ready to be tested.

Test Table			
Test	Instructions	Expected Outcome	Outcome
1	1. Open the app 2. Accept Terms and Conditions	It should start the app.	Pass.
2	1. Open the app 2. Press on Register 3. Enter your detail 4. Press Create	It should create a new account and it should ask you to login.	Pass.
3	1. Open the app 2. Press on Login 3. Enter your detail	Correct detail should give you access to the app	Pass.
4	1. Open the app 2. Login in 3. Press on Play	It should start the game	Pass.
5	1. Open the app 2. Login in 3. Click on Contact Us	It should open the Contact Activity which allows uses to get in touch regarding the app via email.	Pass.
6	1. Open the app 2. Login 3. Click on High-Scores	It should allow the user to view their highscore table.	Pass.
7	1. Open the app 2. Login 3. Click on ?	button tells the user about the app.	Pass.
8	1. Open the app 2. Login 3. Click on Settings	It should open the setting activity.	Fail.

2.3 Setup instruction

No external application needed.

A Software requirements

A.1 User requirements

U1 The application shall allow the user to play games that will test their short term memory

U2 Users from around the world shall be displayed using Google Maps

U3 The user shall be able to pause, resume and end the application at any point

U4 The user shall be able to access the help screen at any point in the game

U5 The user shall be able to run the application if they are using Android 5.0 (API v21)

U6 The user shall be told when there is an error during login

U7 The user shall be have their level assessed by the use of an algorithm

A.2 Technical requirements

T1 The application shall save data locally when there is no Internet connection

T2 The application shall save data to the database when there is access to an Internet connection

T3 The application shall inform the user that there is no Internet connection and prompt them to turn it on

T4 The application shall use GPS to get the user's location and display user ranking for that region

T5 The user shall be able to see users in other regions and interact with them

T6 The gyroscope/accelerometer shall be used to interact with the game

T7 The accelerometer shall be used to restart the game

T8 The high scores shall be stored in a database

T9 The high scores shall be calculated using an algorithm which will use time taken on a level and the level the user is on. The algorithm will use the difficulty of the level, time taken to complete the level and the stage that you are at to calculate the score.

$$x = (difficulty * 10) * (stage * stageCounter * 2) - (time/2)$$

Where stageCounter is how many parts the user has already gotten correct on the specific stage that they have fallen on

T10 The application shall be show appropriate error messages

T11 The application shall remember the preference settings of the user and other states

T12 The application will use profiles to hold user information

T13 The application will use a fair amount of memory

T14 The application will not affect performance of the device by consuming a large amount of power

T15 The application shall analyse the performance of the user and assign the difficulty level dynamically

T16 The application shall maintain the profile of the players that is also used for tracking progress

T17 The application shall be easy to understand and use

T18 The application will provide the user with help and instructions before and during usage of the application

A.3 User-experience requirements

UX1 The application will use assets that do not distract the user from the purpose of the application.

UX2 The application will use assets that are of good quality and visually appealing.

UX3 The application will be intuitive to use even for new users.

UX4 The application will alert the user if the username they've selected is already in use, or if they have entered the wrong one during login

A.4 Security requirements

S1 Sensitive information will not be stored in the application - we will only be storing users' email addresses

S2 We will have a 100% operational SQL database

S3 Users' details will be encrypted

S4 Details pertaining to the user, such as the level that they are on, shall only be available after logging into relevant account

S5 A back up database will be used to provide additional reliability