Requirements and Analysis

Document for the Speedtype Project(RAD)

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This version overrides all previous versions.

**1 Introduction**

This section gives a brief overview of the project

**11.1 Purpose of application**

This project aims to create an Android game. The basic idea is that the game displays a word on screen and the user is meant to type the word on his / her phone as fast as possible. The basic game mode is “Time Attack” where the user starts with a certain amount of time which counts down to 0 and for each word the player types correctly he / she is awarded with an extra few seconds. The game is over when the counter reaches 0. Further explanation will follow below.

**1.2 General characteristics of application**

This game will be an Android, which easily is emulated on a PC, standalone single player application. It will feature a graphical user interface based on HTC Sensation phone but the goal is to make it scalable to all the Android phones and finally get it released on Android Market.  
The game is made for single player use only. When a game is started a word appears on screen, the player types down the word correctly on the built-in touch-keyboard within x amount of seconds. When the user types a letter correctly the letter displayed on screen turns green to provide visual feedback on the user progress. When the word is completed there’s an animation that removes the current word from the screen and displays the next word. Also when the word is completed the player is rewarded with y amount of bonus seconds. After x amount of seconds, when the counter hits 0, the game is over.

**1.3 Scope of application**

Since the application is made for a single user only there’s no need for us to have computer-player. The application will allow the player to pause. See Possible future directions.

**1.4 Objectives and success criteria of the project**

1. It should be possible to play a game of Speedtype with our own set of rules on HTC Sensation specifically.

2. The game will originally be featured in English, but will feature a design that’s easy to extend into other languages as well.

**1.5 Definitions, acronyms and abbreviations**

All definitions and terms regarding the core Speedtype game are as defined in the references section.

* GUI, graphical user interface.
* Java, platform independent programming language.
* JRE, the Java Run time Environment. Additional software needed to run an Java application.
* Host, a phone where the game will run.
* Round, one complete game ending in a winner or possible canceled.
* Score, the amount of score for the player during one round.

**2 Requirements**

**2.1 Functional requirements**

The players should be able to;

1. Start a new game.

a) Select a game mode.

2. Play a game, during the game the player will be able to  
 a) Make input to the game  
 b) Pause  
 c) End the round.

3. Exit the application. Will end the round and game.

**2.2 Non-functional requirements**

**2.2.1 Usability**

Usability is high priority. Normal users should be able to play the game within a very short period. The game should be very self explanatory and communicate the state of the game in a very clear fashion. Tests with at least four different non-computer-professional should be performed to verify the usability. Test results should be part of the final documentation.  
There should be a short English user manual, how to play the game.

**2.2.2 Reliability**

N/A

**2.2.3 Performance**

The game revolves around the performance, the performance needs to be very smooth with a very short response time, which shouldn’t exceed 0.2 seconds in the worst case.

**2.2.4 Supportability**

The game will be implemented so that the GUI can support more than one screen resolution. There should be automated test verifying all use cases. Code related to the GUI could be tested manually. GUI test should be recorded and included in the final documentation.

**2.2.5 Implementation**

**2.2.6 Packaging and installation**

**2.2.7 Legal**

**2.3 Application models**

**2.3.1 Use case model**

See APPENDIX for UML diagram and textual descriptions.

**2.3.2 Use cases priority**

1. Take input

**2.3.3 Domain model**

See APPENDIX.

**2.3.4 User interface**

Application will use a fixed (non skinable, non themeable) GUI following standard conventions. The GUI must take into account different screen sizes, possible very small (minimum size: 320 x 480 (HVGA) at 163 ppi).

**2.4 References**

Z-Type: <http://www.phoboslab.org/ztype/>

**APPENDIX**

Use cases, all possible cases

**GUI**

**Domain model**

**Use cases**

(use cases texts here, at least 4, use template from course page)