## **0. Table of contents**

A table of contents with pages numbers indicated for all sections / headings should be included.

## **1. Introduction**

**1.1 Overview**

This technical manual provides a description of the finished implementation of the Countdown for Android application. It contains the architecture, high level design and development issues of the project.

Countdown for Android is a multiplayer mobile game designed for Android OS. Its game mechanics mirror the TV show Countdown. The game is divided into three rounds: the letters round, the numbers round and the conundrum round. In the letters round players receive six numbers and a random target number ranging from 101 to 999. They are then tasked with applying mathematical operations to their letters in a way that results in the target number. In the letters round the players receive nine letters and are tasked with using their letters to come up with the longest possible valid word. The conundrum round functions similarly to the letters round with the added condition that the player’s word must use up all the letters available to them. The game implements solver algorithms for all the rounds allowing users to see a generated viable answer. Countdown for Android supports both single and multiplayer game mode, with the multiplayer mode supporting up to four players per match.

**1.2 Glossary**

Define and technical terms used in this document. *Only include those with which the reader may not be familiar.*

## **2. System Architecture**

This section describes the high-level overview of the system architecture showing the distribution functions across (potential) system modules. Architectural components that are reused or 3rd party should be highlighted. Unlike the architecture in the Functional Specification - this description must reflect the design components of the system as it is demonstrated.

## **3. High-Level Design**

This section should set out the high-level design of the system. It should include system models showing the relationship between system components and the systems and its environment. These might be object-models, DFD, etc. Unlike the design in the Functional Specification - this description must reflect the design of the system as it is demonstrated.

## **4. Problems and Resolution**

This section should include a description of any major problems encountered during the design and implementation of the system and the actions that were taken to resolve them.

## **5. Installation Guide**

This is a 1 to 2 page section which contains a step by step software installation guide. It should include a detailed description of the steps necessary to install the software, a list of all required software, components, versions, hardware, etc.