

# School of Computing

## CA326 Year 3 Project Proposal Form

### SECTION A

**Project Title:** Countdown for Android

**Student 1 Name:** Gheorghe - Vasile Burac

ID Number: 16452524

**Student 2 Name:** Bartlomiej Kiraga

ID Number: 17327333

**Staff Member Consulted:** Dr. Darragh O'Brien

### Project Description

Countdown for Android is a multiplayer game designed for Android. It implements similar game logic to the one presented in the TV show "Countdown". It has three main rounds. The rounds are Letters, Numbers and Conundrum.

1. **Letters** is the first round of the game. The player must select between vowels and consonants nine times. Every selection returns a random vowel or consonant, respectively. The player must find the longest possible word using the available letters.
2. **Numbers** is the second round. It consists of the user receiving a random number and a set of six numbers. The user must use some or all of the following mathematical operations: addition, subtraction, multiplication and division, in order to obtain a number close or equal to the target number.
3. **Conundrum** is the third round of the game. The player is presented with a set of nine letters and must use them all in order to create a word present in the English dictionary.

The player has thirty second to complete each round. A timer function will ensure the accuracy of the allowed time.

The player will have the opportunity to play against other people. The player will be able to select which round of the game they are playing or they can play all the rounds.

## **Division of Work:**

The work will be divided in the following way:

1. The architecture of the App will be developed by both members of the team.
2. The game server will be developed by Gheorghe-Vasile Burac and Bartlomiej Kiraga in pair programming.
3. The User Interface will be developed by both team members. Each will be assigned specific screens or tasks.
4. Code reviews will be carried out by the other member of the team than the author of the code.

## **Programming language(s):**

The application will be developed in the following programming languages Kotlin, Java.

## **Programming tool(s):**

The following tools will be used to develop the app: Android Studio, Android KTX, Kotlin-friendly SDK, Unity and IntelliJ.

## **Learning Challenges:**

The learning challenges identified so far are:

1. Learning Kotlin
2. Learning Android App development
3. Learn about Java libraries associated with Android App development

4. Learn how to build a professional and accessible User Interface for an Android App.

### **Hardware / software platform:**

The hardware platform is mobile devices such as phones and tablets or phablets running the Android OS.

### **Special hardware / software requirements:**

None

Project proposal description - This is a complete description of the proposed project, which will be agreed with your proposed supervisor. All proposal descriptions must have the following 6 headings:

1. **Description** - Minimum 250 word description of the proposed project.
2. **Division of Work** - Outlines how the work is envisaged to be split equally among the team members.
3. **Programming language(s)** - List the proposed language(s) to be used
4. **Programming tool(s)** - List tools (compiler, database, web server, etc.) to be used
5. **Learning Challenges** - List the main new things (technologies, languages, tools, etc) that you will have to learn
6. **Hardware / software platform** - State the hardware and software platform for development, eg. PC, Linux, etc.
7. **Special hardware / software requirements** - Describe any special requirements.