



Dublin City University
School of Computing
ETHICS COMMITTEE (SEC)

**NOTIFICATION FORM FOR LOW-RISK
PROJECTS AT UNDERGRADUATE OR
TAUGHT MASTERS LEVELS**

Please read the following information carefully before completing your application. Failure to adhere to these guidelines will make your submission ineligible for review.

- 1. Download this form, complete the appropriate fields, attach additional pages (e.g. plain language statement) as appropriate and save as a PDF file**
- 2. Completed applications must be uploaded to your School of Computing GitLab repo, and must be located in “docs/ethics.pdf”.**
- 3. Your SUPERVISOR will then be notified automatically and must approve your approach initially.**
- 4. Your application should consist of one electronic file (PDF) only.** The completed application must include this form and also must incorporate all supplementary documentation, especially that being given to the proposed participants e.g consent forms, plain English language statement. It must be proofread and spell-checked before submission.
- 5. All sections of the application form must be answered as instructed and within the word limits given.**
- 6. Your ethics approval submission will be circulated to the School’s Research Ethics Committee and you will be notified if/when it is approved**
- 7. All projects must have either a derogation from an ethics approval requirement (as determined by your supervisor) OR must have an approved ethics submission (this form), before work with human subjects commences.**

Applications which do not adhere to these requirements will not be accepted for review and will require resubmission

Applications must be completed on this form; answers in the form of attachments will not be accepted, except where indicated. No hard copy applications will be accepted. **The project must not commence work with human subjects until written approval has been received from the School of Computing Ethics Committee (SEC).**

PROJECT TITLE	Countdown for Android
PROJECT SUPERVISOR(S)	Dr. Darragh O'Brien
START AND END DATE	10/10/2019 - 06/03/2020

Please ensure that all supplementary information is included in your application (in one electronic copy). If questionnaire or interview questions are submitted in draft form, please indicate this by putting (draft) after YES. A copy of the final documentation must be submitted for final approval when available.

My application has been collated as one electronic file which includes the following documentation:	INCLUDED (mark YES) as	NOT APPLICABLE (mark as N/A)
Bibliography		N/A
Recruitment advertisement (How are you getting volunteers?)	YES	
Plain language statement/Information statement	YES	
Informed consent form	YES	
Personal Data Security Schedule https://www.dcu.ie/sites/default/files/info/3_blank_data_security_schedule.xls		N/A
Evidence of external approvals related to the research		N/A
Questionnaire/Survey	YES	
Interview/Focus Group Questions	YES	
Debriefing material		N/A
Other (e.g. local government approval)		N/A

Please note:

- Any amendments to the original approved proposal must receive prior SCEC approval.

2. As a condition of approval investigators are required to document and report immediately to SCEC any adverse events, any issues which might negatively impact on the conduct of the research and/or any complaint from a participant relating to their participation in the study

1. ADMINISTRATIVE DETAILS

Project Type (select one):

Undergraduate Project – Final Year

Undergraduate Project – non-final Year

Taught Masters (Practicum)

X

(projects at other levels, e.g. PhD or research Masters, approved by the University's REC if necessary)

should be

1.1 INVESTIGATOR CONTACT DETAILS

SUPERVISOR(S):

NAME	SCHOOL/UNIT	EMAIL
Dr. Darragh O'Brien	School of computing	darragh.obrien@dcu.ie

STUDENT(S):

NAME	SCHOOL/UNIT	EMAIL
Bartlomiej Kiraga	School of computing	bartlomiej.kiraga2@mail.dcu.ie
Gheorghe – Vasile Burac	School of computing	Gheorghevasile.burac2@mail.dcu.ie

DECLARATION BY SUPERVISOR(S)

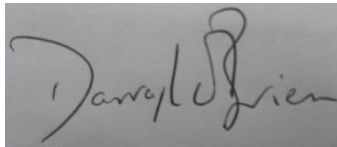
The information contained herein is, to the best of my knowledge and belief, accurate. I have read the University's current research ethics guidelines, and accept responsibility for the conduct of the procedures set out in the attached application in accordance with the form guidelines, the SCEC guidelines (<https://www.dcu.ie/researchsupport/researchethics.shtml>), the University's policy on Conflict of Interest, Code of Good Research Practice and any other condition laid down by the Dublin City University Research Ethics Committee. I have attempted to identify all risks related to the research that may arise in conducting this research and acknowledge my obligations and the rights of the participants.

If there exists any affiliation or financial interest for researcher(s) in this research or its outcomes or any other circumstances which might represent a perceived, potential or actual conflict of interest this should be declared in accordance with Dublin City University policy on Conflicts of Interest.

I and my co-investigators or supporting staff have the appropriate qualifications, experience and facilities to conduct the research set out in the attached application and to deal with any emergencies and contingencies related to the research that may arise.

Electronic Signature(s):

Supervisor(s):

A handwritten signature in black ink, appearing to read 'Darragh O'Brien', is written over a light gray rectangular background.

Print Name(s) here: Dr. Darragh O'Brien

Date: 02/03/2020

2. PROJECT OUTLINE

2.1 SIMPLE DESCRIPTION (Max. 300 words)

Please outline, in terms that any non-expert would understand, what your research project is about, including what participants will be required to do. Please explain any technical terms or discipline-specific phrases.

Countdown for Android is an implementation of the TV show Countdown in the format of a mobile application. The application is designed to function on Android mobile devices (phones). The game consists of three rounds, Numbers, Letters and Conundrum. The participants are required to play the game and evaluate the user experience, functionality and design of the app. The user will use a mobile device to play the game. The numbers round includes a thirty second challenge to reach a target number using a set of six numbers and four mathematical operators (addition, subtraction, multiplication and division). The Letters round involves creating the longest possible word in the English language using a set of nine letters. The conundrum round involves forming a word in the English language using the nine letters provided. The user can play against other live opponents.

2.2 AIMS OF AND JUSTIFICATION FOR THE RESEARCH (Max. 400 words)

State the aims and significance of the project. Where relevant, state the specific hypothesis to be tested. Please provide a brief description of background research, a justification as to why this research project should proceed in that context and an explanation of any expected benefits to the community. NB – all references cited should be listed in an attached bibliography.

The aim of the research is to validate the user experience, functionality and design of the app. The significance of the project is that it allows members of the community that enjoy the TV show to play against other live opponents. The benefit to the community is that it may provide the opportunity to play the game on mobile against other live opponents.

2.3 DESCRIBE THE METHODOLOGY BEING USED TO ACHIEVE YOUR STATED AIMS

Provide an outline of the proposed method and state who is doing which task – include details of data collection techniques, the tasks participants will be asked to do, the estimated time commitment involved, and how data will be analysed. If the project includes any procedure which is beyond already established and accepted techniques please include a description of it. There should be enough detail provided to facilitate ethical review, but applicants are encouraged to keep it as succinct as possible.

The users will use the app and play the game. The user will be asked to fill in a survey and will be part of a focus group interview.

2.4 PARTICIPANT PROFILE

Provide the number, age range and source of participants. Please provide a justification of your proposed sample size. Please provide a justification for selecting a specific gender, age, or any other group if this is done in your project.

There will be approximately ten participants. The participants will be over 18 years of age. It is to prevent the minor's data being handled.

2.4(a) PARTICIPANT VULNERABILITY

Are some or all of participants vulnerable in any way? (e.g by virtue of the group they belong to, people who have undergone traumatic or adverse emotional events, people with diminished cognitive ability, power relations between researchers and participants etc.)? If they are, state what this vulnerability (or vulnerabilities) is and justify why this research is being done with such participants.

Some users may have physical disabilities. This is to test the accessibility features of the application.

2.4(b) CHILD PARTICIPANTS (anyone under 18 years old)

*If your participants include children, you **must** confirm that you are in compliance with the research specific guidelines as detailed in "Keeping Children Safe - Policies and Procedures supporting Child Protection at DCU" - available at:*

https://www4.dcu.ie/sites/default/files/policy/157%20-%20child_protection_handbook_rev1%282%29%281%29.pdf

<i>Please indicate your compliance with the following guidelines:</i>	Mark here
We confirm that we have read and agree to act in accordance with the DCU Child Protection policy and procedures	
We confirm that we have put in place safeguards for the children participating in the research	

We confirm that we have supports in place for children who may disclose current or historical abuse (whether or not this is the focus of the research)	
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2.5 EXPLAIN HOW PARTICIPANTS ARE TO BE RECRUITED

Please provide specific details as to how you will be recruiting participants. How will people be informed that you are doing this research? How will they be approached and asked if they are willing to participate? If you are mailing or phoning people, please explain how you have obtained their names and contact details. If a recruitment advertisement is to be used, please ensure you attach a copy to this application.

The participants will be recruited by the students. This will be achieved by contacting them personally and inviting them to participate in the study. Participants will also be invited to take part in the study via social media messaging.

2.6 PLEASE EXPLAIN WHEN, HOW, WHERE, AND TO WHOM RESULTS WILL BE DISSEMINATED, INCLUDING WHETHER PARTICIPANTS WILL BE PROVIDED WITH ANY INFORMATION AS TO THE FINDINGS OR OUTCOMES OF THE PROJECT?

The results will be shared with the project examiners (DCU staff). The participants will be provided with the results of the project on request.

2.7 ARE OTHER APPROVALS REQUIRED TO GAIN ACCESS TO ANOTHER LOCATION, ORGANISATION

ETC.? (e.g. a School or company)

YES or NO
NO

(If YES, please specify from whom and attach a copy of the approval documentation. If this is not yet available, please explain when this will be obtained.)

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3. RISK AND RISK MANAGEMENT

3.1 JUSTIFICATION OF STATED LEVEL OF RISK TO RESEARCH PARTICIPANTS

You must provide a justification for the stated level of risk, as indicated on the cover page of your application. Note that the level of risk may be influenced by the vulnerability of the research group, the methods employed and the nature of the research itself. For further information on risk levels, please refer to the Levels of Review information on the website:

There are no risks foreseen.

3.2 DOES THE RESEARCH INVOLVE:

	YES or NO
● use of a questionnaire? (attach copy)?	YES
● interviews (attach interview questions)?	YES
● observation of participants without their knowledge?	NO
● participant observation (provide details in section 2)?	YES
● audio- or video-taping interviewees or events?	NO
● access to personal and/or confidential data (including student, patient or client data) without the participant's specific consent?	NO
● administration of any stimuli, tasks, investigations or procedures which may be experienced by participants as physically or mentally painful, stressful or unpleasant during or after the research process?	NO
● performance of any acts which might diminish the self-esteem of participants or cause them to experience embarrassment, regret or depression?	NO
● investigation of participants involved in illegal activities?	NO
● procedures that involve deception of participants?	NO
● administration of any substance or agent?	NO
● use of non-treatment of placebo control conditions?	NO
● collection of body tissues or fluid samples?	NO
● collection and/or testing of DNA samples?	NO
● participation in a clinical trial?	NO
● administration of ionising radiation to participants?	NO

3.3 POTENTIAL RISKS TO PARTICIPANTS AND RISK MANAGEMENT PROCEDURES

Identify, as far as possible, all potential risks to participants (physical, psychological, social, legal, economic, etc.), associated with the proposed research. Please explain what risk management procedures will be put in place to minimise these risks.

No risks.

3.4 ARE THERE LIKELY TO BE ANY BENEFITS (DIRECT OR INDIRECT) TO PARTICIPANTS FROM THIS RESEARCH?

YES or NO

NO

(If YES, provide details.)

3.5 ARE THERE ANY SPECIFIC RISKS TO RESEARCHERS?

Examples include use of dangerous materials, asking certain types of questions, research being undertaken in certain locations, researchers working alone in isolated areas, etc.

YES or NO

NO

(If YES, please describe and explain what risk management procedures will be put in place to minimise these risks.)

3.6 DEALING WITH ADVERSE/UNEXPECTED OUTCOMES

Please describe what measures/protocols you have put in place in the event that there are any unexpected outcomes or adverse effects to participants arising from involvement in the project.

Contact emergency services in the event of serious accidents.

3.7 HOW WILL THE CONDUCT OF THE PROJECT BE MONITORED?

Please explain how the supervisor will monitor the conduct of the project (especially where several people are involved in recruiting or interviewing, administering procedures, etc.) to ensure that it conforms with the procedures set out in this application

The conduct of the project will be monitored through regular meetings by the project supervisor.

3.8 SUPPORT FOR PARTICIPANTS

Depending on risks to participants you may need to consider having additional support for participants during/after the study. Consider whether your project would require additional support, e.g., external counselling available to participants.

Please advise what support will be available.

There are no risks associated with this study, hence there is no need to provide additional support.

3.9 DO YOU PROPOSE TO OFFER PAYMENTS OR INCENTIVES TO PARTICIPANTS?

YES or NO
NO

(If YES, please provide further details.)

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3.10 DO ANY OF THE RESEARCHERS ON THIS PROJECT HAVE A PERSONAL, PHILOSOPHICAL, FINANCIAL OR COMMERCIAL INTEREST IN ITS OUTCOME THAT MIGHT INFLUENCE THE INTEGRITY OF THE RESEARCH, OR BIAS THE CONDUCT OR REPORTING OF THE RESEARCH, OR UNDULY DELAY OR OTHERWISE AFFECT THEIR PUBLICATION?

YES or NO
NO

(If YES, please specify how this conflict of interest will be addressed.)

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4. CONFIDENTIALITY/ANONYMITY

4.1 WILL THE IDENTITY OF THE PARTICIPANTS BE PROTECTED?

YES or NO

YES

(If NO, please explain why.)

IF YOU ANSWERED YES TO 4.1, PLEASE ANSWER THE FOLLOWING QUESTIONS:

4.2 HOW WILL THE ANONYMITY OF THE PARTICIPANTS BE RESPECTED?

Please bear in mind that where the sample size is very small, it may be impossible to guarantee anonymity/confidentiality of participant identity. Participants involved in such projects need to be advised of this limitation in the Plain Language Statement/Information Sheet. If you intend to fully anonymize the data, please provide details

They have the option to sign in anonymously during the testing. The data will not be shared with people not involved directly with the project.

4.3 LEGAL LIMITATIONS TO DATA CONFIDENTIALITY

Participants need to be made aware that confidentiality of information provided cannot always be guaranteed by researchers and can only be protected within the limitations of the law - i.e., it is possible for data to be subject to subpoena, freedom of information claim or mandated reporting by some professions. This information should be included in your Plain Language Statement and Informed Consent Form. Depending on the research proposal and academic discipline, you may need to state additional specific limitations.

State how and where participants will be informed of these limitations

Plane Language Statement contains warning regarding the fact that we cannot always guarantee data security.

5. PERSONAL DATA - COMPLIANCE WITH THE GENERAL DATA PROTECTION REGULATION

Personal data is data relating to a living individual (i.e. the 'Data Subject') who is, or can be, identified either from the data itself or from the data in conjunction with other information that is in, or is likely to come into, the possession of the 'Data Controller' (i.e. DCU and its constituent units e.g. research teams etc.). Further information on personal data is available from the DCU Data Protection Unit at <https://www.dcu.ie/ocoo/dp/guides.shtml>

5.1 IS PERSONAL DATA BEING PROCESSED AS PART OF THIS PROJECT?

YES or NO
NO

If YES, Please indicate your compliance with the following guidelines:	Mark here
We confirm that we have read and agree to act in accordance with DCU Data Protection Unit guidance and procedures regarding personal data	
We confirm that we have put in place a Personal Data Security Schedule (PDSS) for the project and have attached it to this application	

Please see the GDPR and the Research Ethics Process section of the [SCEC main webpage](#) for guidance

IF YOU ANSWERED YES TO 5.1, PLEASE ANSWER THE FOLLOWING QUESTIONS:

5.2 WHAT KIND OF PERSONAL DATA IS BEING PROCESSED?

Note special categories of personal data include health data, genetic data and/or data relating to ethnicity/race of participants, their sex lives and/or sexual orientation

There is no personal data being processed.

5.3 WILL ANONYMISATION/PSEUDONYMISATION OF THE PERSONAL DATA BE UNDERTAKEN?

YES or NO
NO .

(If NO, please explain why.)

No personal data is collected.

6. DATA/SAMPLE STORAGE, SECURITY AND DISPOSAL

For the purpose of this section, "Data" includes that in a raw or processed state (e.g. interview audiotape, transcript or analysis). "Samples" include body fluids or tissue samples.

6.1 HOW AND WHERE WILL THE DATA/SAMPLES BE STORED?

Note that the SCEC recommends that all data be stored on campus – please justify any off-site storage .

Firestore Realtime database and mobile device application storage medium.

6.2 WHO WILL HAVE ACCESS TO DATA/SAMPLES?

If people other than the main researchers have access, please name who they are and explain for what purpose.

Project developers (Gheorghe-Vasile Burac and Bartlomiej Kiraga)

6.3 HOW LONG IS THE DATA TO BE HELD/RETAINED FOR?

Note that with very few exceptions **personal data** may not be retained indefinitely. It is up to the unit or research team to establish an upper retention limit for each category of personal data under its control.

One month.

6.4 IF DATA/SAMPLES ARE TO BE DISPOSED OF, PLEASE EXPLAIN HOW, WHEN AND BY WHOM THIS WILL BE DONE?

Note that simply deleting files is not sufficiently secure. The additional steps to be taken to maintain data security should be given. **Personal data** must be disposed of in a safe and secure manner at the end of its retention period. If the data is stored in a: a) paper based format then shredding or disposal via a secure bin is recommended; or b) if it is stored in an electronic based format then deletion of the record or full anonymization of the data is recommended. If data/samples are NOT being disposed of, please justify this decision.

Data will be deleted by the project developers by overriding the database. Overriding the database means returning the database to the state it was before there was any data written to it. This will be done on the 1st of April 2020 by Gheorghe-Vasile Burac and Bartlomiej Kiraga.

7. PLAIN LANGUAGE STATEMENT (Attach to this document. Approx. 400 words)

A Plain Language Statement (PLS) should be used in all cases. This is written information in plain language that you will be providing to participants, outlining the nature of their involvement in the project and inviting their participation. The PLS should specifically describe what will be expected of participants, the risks and inconveniences for them, and other information relevant to their involvement. Please note that the language used must reflect the participant age group and corresponding comprehension level – if your participants have different comprehension levels (e.g. both adults and children) then separate forms should be prepared for each group. The PLS can be embedded in an email to which an online survey is attached, or handed/sent to individuals in advance of their consent being sought. See link to sample templates on the website: <https://www.dcu.ie/researchsupport/ethicsapproval.shtml>

PLEASE CONFIRM WHETHER THE FOLLOWING ISSUES HAVE BEEN ADDRESSED IN YOUR PLAIN LANGUAGE STATEMENT/ INFORMATION SHEET FOR PARTICIPANTS:

	YES or NO
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Introductory Statement (Supervisor and student names, school, title of the research)	YES
What is this research about?	YES
Why is this research being conducted?	YES
What will happen if the person decides to participate in the research study?	YES
How will their privacy be protected?	YES
How will the data be used and subsequently disposed of?	YES
What are the legal limitations to data confidentiality?	YES
What are the benefits of taking part in the research study (if any)?	YES
What are the risks of taking part in the research study?	YES
Confirmation that participants can change their mind at any stage and withdraw from the study	YES
How will participants find out what happens with the project?	YES
Contact details for further information (including SCEC contact details)	YES
Details relating to GDPR Compliance if Personal Data is being sought	YES

If any of these issues are marked NO, please justify their exclusion:

8. INFORMED CONSENT FORM *(Attach to this document. Approx. 300 words)*

In most cases where interviews or focus groups are taking place, an Informed Consent Form is required. This is an important document requiring participants to indicate their consent to participate in the study, and give their signature. If your participants are minors (under 18), it is best practice to provide them with an assent form, while their parents/guardians will be given the Informed Consent Form. In cases where an anonymous questionnaire is being used, it is enough to include a tick box in the questionnaire (underneath the information section for participant), where participants can indicate their consent.

See link to sample templates on the website: <https://www.dcu.ie/researchsupport/ethicsapproval.shtml>

.NB – IF AN INFORMED CONSENT FORM IS NOT BEING USED, THE REASON FOR THIS MUST BE JUSTIFIED HERE

PLAIN LANGUAGE STATEMENT

Countdown for Android

Project supervisor: Dr. Darragh O'Brien

Email: darragh.obrien@dcu.ie

Project developer: Gheorghe – Vasile Burac

Email: gheorghevasile.burac2@mail.dcu.ie

Project developer: Bartlomiej Kiraga

Email: bartlomiej.kiraga2@mail.dcu.ie

Purpose

The purpose of this research is to assess the feedback of the users and to identify potential issues and improvements of the Countdown for Android application.

Description

Countdown for Android is a mobile phone app that implements the game popularized by the Countdown TV show. The game has three rounds:

1. Numbers

The Numbers round consists of a mathematical puzzle where the player can test their mathematical prowess by obtaining a given target number using a set of six numbers and four mathematical operations (i.e. addition, subtraction, multiplication and division).

2. Letters

The Letters round consists of a puzzle where the player can test their ability to form words using a set of nine letters. The user must form the longest possible word in the English Language using the letters provided, in order to win.

3. Conundrum

The Conundrum round consists of a puzzle where the player must find the word that can be formed using all the nine letters given.

Each of the rounds has a time limit in which the challenge can be completed. The time limit is thirty seconds.

The user can play alone or can play against other live players.

If you should participate in the study, you will be provided with the opportunity to test the product (Countdown for Android) by playing the game on a mobile device (smart phone).

Taking part

Users aged 18 or over are welcome to take part in the testing of this mobile app. Taking part in the testing is optional and consists of the following:

1. Expressing the consent in participating in the user testing This can be achieved by signing the accompanied form outlining this. The user can withdraw anytime from the study without consequence.
2. Benefits
 - There are no benefits associated with taking part in this study.
3. Using the mobile app:
 - Selecting between multiplayer and single player.
 - If multiplayer is selected, the user can choose between anonymous sign in and creating an account. Single player does not require creating an account.
 - Multiplayer experience consists of playing all the rounds of the game (Numbers, Letters and Conundrum) in order against other live players.
 - Single player consists of the option of playing the rounds in order or selecting a specific round.

Risks and Inconveniences

There are no foreseen risks and inconveniences. Should any risks or inconvenience arise, they will be assessed and dealt with accordingly.

Data security cannot always be guaranteed.

Data Protection

For improved data protection, the user can sign in anonymously. Thus, no identifiable user data is collected.

The data collected can only be seen by the people involved in the research project (i.e. Gheorghe-Vasile Burac, Bartlomiej Kiraga, Dr. Darragh O'Brien and other DCU staff that are directly involved with the project) and the participant who provided their data.

Data processing

The data will be analyzed, and insights will be gathered regarding the user feedback on the product (Countdown for Android). Aspects such as usability and user experience will be considered while analyzing the data provided by the user.

After the study

The participants may learn about the results of the study by requesting a copy of the results.

Further information

For further information regarding the ethics of this study please contact the Research Ethics Convener at REC@dcu.ie.

Recruitment Advertisement

We are conducting user testing of our Android App. The app is an implementation of the TV Show Countdown.

We would like to invite you to try to use our Android app. We are available daily until the 6th of March 2020 from 09:00 AM to 09:00 PM in L129, the School of Computing Building, Glasnevin Campus. For more information please contact us at: gheorghevasile.burac2@mail.dcu.ie

We are grateful for your support.

INFORMED CONSENT FORM

Countdown for Android

Project supervisor: Dr. Darragh O'Brien

Email: darragh.obrien@dcu.ie

Project developer: Gheorghe – Vasile Burac

Email: gheorghevasile.burac2@mail.dcu.ie

Project developer: Bartlomiej Kiraga

Email: bartlomiej.kiraga2@mail.dcu.ie

Purpose

The purpose of this research is to confirm that the mobile app presented works and is provides a satisfying user experience.

Consent

I consent to taking part in the research associated with this project (interviews and focus groups). I understand that I can withdraw anytime from the taking part in the research or refuse to answer any question without any consequences.

I understand that I can ask any questions regarding this research.

Disposal of Data

I understand I can request deletion of my data anytime.

I agree to my data being collected. I understand that my data can be used in an anonymized fashion to improve the product this research is associated with. The data will be deleted on the 1st of April 2020 by Gheorghe-Vasile Burac and Bartlomiej Kiraga.

I understand that I can access the information I provided anytime, in accordance with the law in Ireland.

Agreement

I have read the informed consent form and plain language statement. I consent to the above.

Signature (user): _____

Signature (developer): _____

Survey

This survey is voluntary and anonymous.

Countdown for Android is the implementation of the TV Show Countdown as an app for Android mobile devices (smartphones). It implements the three rounds of the game (Numbers, Letters and Conundrum). It offers single player and multiplayer experience.

We invite you evaluate the following aspects of your experience using the application:

1. How did you find using the numbers generation feature in the Numbers Round?
2. How did you find dragging the number tiles in the Numbers Round?
3. How did you find using the tiles in the Letters Round?
4. How did you find using the letters tiles in the Conundrum Round?
5. What did you think of the color contrast presented throughout the app?
6. What did you think of the layout of the app?
7. Did you find the buttons accessible to use?
8. Was it clear what the task required you to do in order to complete it?
9. Were you satisfied with the speed of the application?
10. Did you find any buttons/features that did not work? If yes, please provide detail below.
11. Did solver provide you with a working solution?
12. Were you able to play against other live players?
13. How satisfied were you with the entire experience?

The survey is available at:

https://docs.google.com/forms/d/e/1FAIpQLSfX8_sAqua2IyeJB0IWYA26Of85nnPIfACCLL1Kaoz7EVI6jA/viewform?usp=sf_link

Focus group interview

This interview is voluntary. The aim of the interview is to evaluate the Countdown for Android mobile application. More information regarding this is available in the Plain Language Statement. You are welcome to ask any questions you may have regarding the product and interview.

What did you like about the app?

What you didn't like about the app?

What could be made better?

What worked well?

What didn't work?

What would you change?