

62550 Individual Assignment: Wheel of Fortune

Introduction

The Wheel of Fortune (“Lykkehjulet”) game which was popular during the last millennium is to be implemented in a modified version as an Android app.



The objective and rules of the game can be determined from the following clip: <https://youtu.be/79nl-BDNek0>

For the Android application, the modified rules are:

1. The game is for one player.
2. When the game starts, a word is randomly chosen from predefined categories and displayed along with the category.
3. The word is displayed with the letters hidden.
4. The player “spins the wheel”. (A graphically spinning wheel is not required to be implemented this could be done simply by tapping a button and showing the result.)
5. The possible results of the “spinning the wheel” are: a number of points e.g 1000 or “bankrupt”.
6. In the event of a value being shown, a letter (consonant or vowel) is chosen by the user (from a keyboard or otherwise). If the letter is present, the user’s points total is incremented by the value shown times the number of occurrences of the letter. The occurrences of the letter are revealed in the word. If the letter is not present the user loses a “life”.
7. In the event of “bankrupt” being shown, the user loses all their points.
8. The “wheel is spun” until the game is won or lost.
9. The game is won when all the letters have been found and the user still has a life.
10. The game is lost when the user has no lives left and the word has not been found.
11. A user starts with 5 “lives”.

Requirements

FR_1	The game rules listed should be implemented.
FR_2	The game should be able to be played again when finished.
NFR_1	The application must be implemented in Kotlin
NFR_2	The application must be implemented using Jetpack Compose.
NFR_3	Modern Android architecture guidelines should be followed.
NFR_4	Modern Android state management should be used (as covered in the course). (LiveData, not covered in the course, is not considered as modern state management)
NFR_5	Version control (GitHub or GitLab) should be used. (Access should be given to Ian with Github username: "GitHubBruger")
NFR_6	The app name must start with the student number. (Edit the values/strings.xml e.g. <string name="app_name">s123456 Lykkehjulet</string>)
NFR_7	The minSdkVersion should be 28

The assignment is to be undertaken individually and contributes 25% of the final grade.
The entire project should be delivered in a zip file (zip, not 7z or otherwise) on DTU Learn. Check that the zipped file can be opened in Android Studio.

Code which has been taken from elsewhere should be clearly referenced in the code, otherwise this will be considered to be plagiarism (plagiarism checks are made).

A report is not required. Delivery deadline: 02/12/22 6pm.