

5COSC023C - Tutorial 2 Exercises

As part of this tutorial for this week, you should complete **ALL** the tasks described in the following specifications:

A Lottery Program

*Your tutor will show and explain to you step-by-step how to develop an Android application for the following problem. Make sure that you follow the same steps by using the Android Studio and at the same time that your tutor is showing them to you. **Make sure that you understand all of the steps, do not just repeat them mechanically!***

A lottery ticket consists of 6 unique numbers in the range between 1 and 49.

Write an Android application which calculates such a 6 lucky random unique numbers which the program user can play in the next lottery. Every time a button is pressed a new set of unique numbers is generated.

Extending the Lottery Program

1. Extend your Lottery application so that it uses 6 separate `TextView` widgets to display the 6 generated numbers. The 6 textviews should have some horizontal space between them.
2. Extend your Lottery application so that it contains a textbox. The user will type a number in the textbox and the program will exclude the number from the generated results.

Hint: Use a `EditText` view (widget) for the textbox.

3. Extend your Lottery program so that it contains 6 additional buttons. Once the 6 random numbers are generated by the previously implemented button, the user can use one of the 6 buttons to change of the generated numbers.

For example, pressing the 3rd button will replace the third number with a newly generated unique number while the rest of the numbers remain the same (i.e. the first, second, fourth, fifth and sixth number do not change). The newly generated number should be unique (i.e. not the same with the rest unchanged numbers).