

BSc (Hons) in Information Technology Year 2

Online Exam

IT2030 – Object Oriented Programming

Semester 1, 2022

In the assignment, you are required to work on below programming problem using the Java programming language applying the concepts that you have learnt under IT2030. You can use any IDE or online tool like repl or any text pad to build your solution. You are required to work on the assignment individually and submit your solutions withing given time.

<u>Instructions on submitting the assignment:</u>

- 1. Copy all the java classes into a single notepad file and rename it with your student id.
- 2. Upload to the course web for the relevant center link visible during the time frame.
- ** Students are strictly advised to following the submission guidelines. Any student answer which is not following the correct instructions when submitting, will not be assessed.
- **Please note that "Gradescope" will be used to check the plagiarism and the plagiarism benchmark will be 40%. (If the similarity report shows the code similarity percentage as 40% or above it will consider as copied.)

Write a Lottery class that simulates a lottery.

The class should have an array of five integers named **lotteryNumbers.** The constructor should use the random() funtion to generate a random number in the range of 0 through 9 for each clement in the array. The class should also have a function that accepts an array of five integers that represent a person's lottery picks.

The method is to compare the corresponding elements in the two arrays and return the number of digits that match.

For example, the following shows the lotteryNumbers array and the user's array with sample numbers stored in each.

There are two matching digits (elements 2 and 4)

lotteryNumbers array:

7	4	9	1	3

User's array:

4	2	9	7	3