

Improving Enterprises - Dice Problem

You have 1 hour and 30 minutes to complete the exercise.

You can use C++, Java, C#, or whichever **object-oriented** language with which you feel most comfortable.

Please make sure that your code runs. You can build your solution in any environment. We would like your solution to demonstrate the application of OO concepts.

A Graphical User Interface is not necessary, but will be considered as a bonus.

Steps:

1. Build an application that rolls a six-sided die to obtain a random value between 1 and 6.
2. Introduce the concept of a cup so that multiple dice can be rolled at one time.
3. Create a loaded die that, given a predetermined number, will land on that number 50% of the time (we can't be too obvious with our loaded die).

The output should look similar to this:

Rolling 1 die: 4

Rolling 2 dice in a cup: 8

Rolling 6 dice in a cup: 23

Rolling 12 dice in a cup: 41

Rolling 120 dice in a cup: 415

Rolling a loaded die set to '1': 1

Rolling a loaded die set to '1': 3