

## DICE ROLLER

### Objective: Random Numbers

**Task:** Create an application that simulates dice rolling.

#### What will the application do?

- The application asks the user to enter the number of sides for a pair of dice.
  - If you have learned about exception handling, make sure the user can only enter numbers
- The application prompts the user to roll the dice.
- The application “rolls” two n-sided dice, displaying the results of each along with a total
- For 6-sided dice, the application recognizes the following dice combinations and displays a message for each. It should not output this for any other size of dice.
  - Snake Eyes: Two 1s
  - Ace Deuce: A 1 and 2
  - Box Cars: Two 6s
  - Win: A total of 7 or 11
  - Craps: A total of 2, 3, or 12 (will also generate another message!)
- The application asks the user if he/she wants to roll the dice again.

#### Build Specifications:

1. Create a static method to generate the random numbers.
  - a. Proper method header: 2 points
  - b. Program generates random numbers validly within the user-specified range: 1 point
  - c. Method returns meaningful value of proper type: 1 point
2. Create a static method for six-sided dice that takes two dice values as parameters, and returns a string for one of the valid combinations (e.g. Snake Eyes, etc.) or an empty string if the dice don't match one of the combinations.
  - a. Snake Eyes: Two 1s
  - b. Ace Deuce: A 1 and 2
  - c. Box Cars: Two 6s
  - d. Or empty string if no matching combos
3. Create a static method for six-sided dice that takes two dice values as parameters, and returns a string for one of the valid totals (e.g. Win, etc.) or an empty string if the dice don't match one of the totals.

- a. Win: A total of 7 or 11
  - b. Craps: A total of 2, 3, or 12
  - c. Or empty string if no matching combos
4. Application takes all user input correctly: 1 point
  5. Application loops properly: 1 point

#### Hints:

- Use the Random class to generate a random number.

#### Extra Challenges:

- Come up with a set of winning combinations for other dice sizes besides 6.

