## Roll The Dice

## Console

Welcome to the Paradise Roller

Roll the dice? (y/n): y

Roll 1: 2 & 5

Craps!

Roll again? (y/n): y

Roll 2: 2 & 1

Roll again? (y/n): y

Roll 3: 4 & 6

Roll again? (y/n): y

Roll 4: 6 & 6

Box cars!

Roll again? (y/n): y

Roll 5: 1 & 1

Snake eyes!

Roll again? (y/n): n

## Operation

* If the user chooses to roll the dice, the application rolls two six-sided dice, displays the results of each, and asks if the user wants to roll again.

## Specifications

* Create a class named Die to store the data about each die. This class should contain these constructors and methods:

public Die() // default to a six-sided die  
public Die(int sides) // allow a variable number of sides  
public void roll()  
public int getValue()

* Create a class named PairOfDice to store two dice. This class should contain two instance variables of the Die type, an instance variable that holds the sum of the two dice, and these constructors and methods:

public PairOfDice() // default to six-sided dice  
public PairOfDice(int sides) // allow a variable number of sides  
public void roll()  
public int getValue1() // get value of die1  
public int getValue2() // get value of die2  
public int getSum() // get the sum of both dice

* You can use the random method of the Math class to generate a random number from 1 to the number of sides on a die like this:

int value = (int) (Math.random() \* sides);

* Create a class named DiceRollerApp that uses the PairOfDice class to roll the dice. This class should display special messages for craps (sum of both dice is 7), snake eyes (double 1’s), and box cars (double 6’s). For this application, assume that two six-sided dice are used.

*Project 8-3: Roll the dice (cont.)*

Create a Java Dice Rolling program with NetBeans that satisfies the **specifications** above.

Put **General Comments** at the beginning of the project that includes (1) your name, (2) the project name, (3) the date, and (4) a description of the project.

Turn in a ZIP file of the final version of the program. Include a Word document which contains (1) a script of inputs that will be tested and (2) output of the inputs tested. The script should include what error message appears with each bad input.

Report an estimate of the time it took to complete the project. Report a single value in minutes. Also give a single rating of the project, on an ordinal scale, as either (1) Easy, (2) Moderate, (3) Hard, OR (4) Challenging.