DiceRoller Assignment

Overview

This assignment focuses on using Java's `Random` class to simulate rolling dice, demonstrating the difference between seeded and unseeded random number generation.

Learning Objectives

- Create multiple Random objects (seeded and unseeded)
- Generate random integers using `nextInt()`
- Understand dice rolling simulation (1-6 range)
- Demonstrate seeded vs unseeded behavior
- Practice with multiple Random objects in one program

Assignment Requirements

Task: Dice Rolling Simulation

Create a Java program that simulates rolling four dice with different random number generators.

Requirements:

1. **Create Four Random Objects:**
    - Three `Random` objects without seeds (unseeded dice)
    - One `Random` object with a seed of any value (seeded die)
2. **Generate Dice Rolls:**
    - Generate rolls from all four Random objects
    - Remember one of the four should be seeded!
3. **Display Results:**
    - Show all four dice rolls with clear labels
    - Demonstrate seeded vs unseeded behavior
4. **Output Format:**
    - Display all four dice rolls
    - Use clear labels to distinguish between dice

Example Output

```
Unseeded Die 1: 4
Unseeded Die 2: 2
```

```
Unseeded Die 3: 6
Seeded Die: 3
```

Key Concepts

Random Class Methods

- `Random()` - Creates unseeded/seeded random number generator
- `nextInt()` - Returns random integer

Seeded vs Unseeded Behavior

- **Unseeded Dice**: Produce different values each time program runs
- **Seeded Die**: Produces same sequence of values each time (deterministic)

Tips

- The seeded die will always produce the same values for the same seed
- Unseeded dice will produce different values each time you run the program
- You can use any seed value for the seeded die
- Run the program multiple times to see the difference between seeded and unseeded behavior