Dice Roller Program in Kotlin

1. Introduction

This task involves building a simple console-based Dice Roller program using Kotlin. The program simulates rolling two dice using random number generation and prints the result of each roll. If both dice show the same number, the program displays a fun congratulatory message.

2. Objective

- Understand random number generation
- Practice creating and using functions
- Apply conditional statements
- Improve logical thinking skills

3. Kotlin Code Implementation

```
import kotlin.random.Random

// Function to roll one die
fun rollDie(): Int {
return Random.nextInt(1, 7) // Generates numbers from 1 to 6
}

// Function to roll two dice and print result
fun rollDicePair() {
val dice1 = rollDie()
val dice2 = rollDie()

println("Dice 1: $dice1")
println("Dice 2: $dice2")

if (dice1 == dice2) {
println("🎉 Wow! It's a Double! Both dice show $dice1!")
```

```
} else {
println("Nice roll! Try again for a double.")
}
}

fun main() {
println("🎲 Rolling two dice...\n")
rollDicePair()
}
```

4. Explanation of the Program

- Random.nextInt(1, 7) generates a random number between 1 and 6.
- The rollDie() function simulates rolling one die.
- The rollDicePair() function calls rollDie() twice.
- An if condition checks whether both dice values are equal.
- If both numbers match, a special message is printed.

5. Sample Output

🎲 Rolling two dice...

Dice 1: 4

Dice 2: 4

🎉 Wow! It's a Double! Both dice show 4!

6. Learning Outcomes

After completing this task, students are able to:

- Use functions effectively
- Generate random values
- Apply conditional logic
- Structure programs in a modular way
- Improve debugging and logical reasoning skills

7. Conclusion

The Dice Roller program is a beginner-friendly Kotlin application that demonstrates the use of functions, random number generation, and conditionals. It strengthens fundamental programming concepts and builds confidence in writing structured Kotlin programs.