

Write a program to implement a snake and ladder game.

- You can take a player number as input.
- Generate dice score using random method from Math class.
- Add dice score to the player.
- Check for the snake or the ladder if the player goes through.
- Update the player score after a snake or a ladder if any.
- Check if the player's score is 100, then declare the player is the winner and exit.
- Check if the player's score is >100, then reduce the dice score.
- Repeat until any one of the players wins the game.

```
import java.util.Scanner;
public class SnakeandLadder {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        int player1 = 0;
        int player2 = 0;
        int player3 = 0;
        while (true) {
            System.out.print("Enter the player number ");
            int playerNumber = sc.nextInt();
            int diceRoll;
            while (true) {
                diceRoll = (int) (Math.random() * 10);
                if (diceRoll >= 1 && diceRoll <= 6) {
                    break;
                }
            }
            System.out.println("Player " + playerNumber + "
rolled: " + diceRoll);

            if (playerNumber == 1) {
                if (player1 + diceRoll <= 100) {
                    player1 = player1 + diceRoll;
                }
                if (player1 == 1)
                    player1 = 38;
                else if (player1 == 4)
                    player1 = 14;
                else if (player1 == 9)
                    player1 = 31;
                else if (player1 == 21)
                    player1 = 42;
                else if (player1 == 28)
                    player1 = 84;
```

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        else if (player1 == 36)
            player1 = 44;
        else if (player1 == 51)
            player1 = 67;
        else if (player1 == 71)
            player1 = 91;
        else if (player1 == 80)
            player1 = 100;
        else if (player1 == 16)
            player1 = 6;
        else if (player1 == 47)
            player1 = 26;
        else if (player1 == 49)
            player1 = 11;
        else if (player1 == 56)
            player1 = 53;
        else if (player1 == 62)
            player1 = 19;
        else if (player1 == 64)
            player1 = 60;
        else if (player1 == 87)
            player1 = 24;
        else if (player1 == 93)
            player1 = 73;
        else if (player1 == 95)
            player1 = 75;
        else if (player1 == 98)
            player1 = 78;
        System.out.println("Player 1 is now at
position: " + player1);
        if (player1 == 100) {
            System.out.println("Player 1 wins!");
            break;
        }
    } else if (playerNumber == 2) {
        if (player2 + diceRoll <= 100) {
            player2 += diceRoll;
        }
        if (player2 == 1) player2 = 38;
        else if (player2 == 4)
            player2 = 14;
        else if (player2 == 9)
            player2 = 31;
        else if (player2 == 21)
            player2 = 42;
        else if (player2 == 28)
            player2 = 84;
    }
}

```

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        else if (player2 == 36) player2 = 44;
        else if (player2 == 51)
            player2 = 67;
        else if (player2 == 71)
            player2 = 91;
        else if (player2 == 80)
            player2 = 100;
        else if (player2 == 16)
            player2 = 6;
        else if (player2 == 47)

            player2 = 26;
        else if (player2 == 49)
            player2 = 11;
        else if (player2 == 56)
            player2 = 53;
        else if (player2 == 62)
            player2 = 19;
        else if (player2 == 64)
            player2 = 60;
        else if (player2 == 87)
            player2 = 24;
        else if (player2 == 93)
            player2 = 73;
        else if (player2 == 95)
            player2 = 75;
        else if (player2 == 98)
            player2 = 78;

        System.out.println("Player 2 is now at
position: " + player2);
        if (player2 == 100) {
            System.out.println("Player 2 wins!");
            break;
        }
    } else if (playerNumber == 3) {
        if (player3 + diceRoll <= 100) {
            player3 += diceRoll;
        }
        if (player3 == 1) player3 = 38;
        else if (player3 == 4)
            player3 = 14;
        else if (player3 == 9)
            player3 = 31;
        else if (player3 == 21)
            player3 = 42;
        else if (player3 == 28)

```

```

        player3 = 84;
    else if (player3 == 36)
        player3 = 44;
    else if (player3 == 51)
        player3 = 67;
    else if (player3 == 71)
        player3 = 91;
    else if (player3 == 80)
        player3 = 100;
    else if (player3 == 16)
        player3 = 6;
    else if (player3 == 47)
        player3 = 26;
    else if (player3 == 49)
        player3 = 11;
    else if (player3 == 56)
        player3 = 53;
    else if (player3 == 62)
        player3 = 19;
    else if (player3 == 64)
        player3 = 60;
    else if (player3 == 87)
        player3 = 24;
    else if (player3 == 93)
        player3 = 73;
    else if (player3 == 95)
        player3 = 75;
    else if (player3 == 98)
        player3 = 78;

    System.out.println("Player 3 is now at
position: " + player3);
    if (player3 == 100) {
        System.out.println("Player 3 wins!");
        break;
    }
    } else {
        System.out.println("Invalid player number.
Please enter 1, 2, or 3.");
    }
}

sc.close();
}
}

```

OUTPUT

[illegible]