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package oasis;
import java.util.Scanner;
import java.util.Random;

// Game class
class Game {

	int systemInput;
	int userInput;
	int noOfGuesses = 0;

	// generating random number in default constructor
	Game() {
		Random random = new Random();
		this.systemInput = random.nextInt(100) + 1;
	}


	// method to take user guesses
	public boolean takeUserInput() {
		if ( noOfGuesses < 10 ) {
			System.out.print("Guess the number : ");
			this.userInput = task_2.takeIntegerInput(100);
			noOfGuesses++;
			return false;
		}
		else {
			System.out.println("Number of attempts finished...Better luck next time\n");
			return true;
		}
	}
```

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//method to check user guess status
public boolean isCorrectGuess() {

        if ( systemInput == userInput ) {
                System.out.println("Congratulations, you guess the number " + systemInput
+
                " in " + noOfGuesses + " guesses");
                switch(noOfGuesses) {
                        case 1:
                        System.out.println("Your score is 100");
                        break;
                        case 2:
                        System.out.println("Your score is 90");
                        break;
                        case 3:
                        System.out.println("Your score is 80");
                        break;
                        case 4:
                        System.out.println("Your score is 70");
                        break;
                        case 5:
                        System.out.println("Your score is 60");
                        break;
                        case 6:
                        System.out.println("Your score is 50");
                        break;
                        case 7:
                        System.out.println("Your score is 40");
                        break;
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                    case 8:
                    System.out.println("Your score is 30");
                    break;
                    case 9:
                    System.out.println("Your score is 20");
                    break;
                    case 10:
                    System.out.println("Your score is 10");
                    break;
            }
            System.out.println();
            return true;
        }
        else if ( noOfGuesses < 10 && userInput > systemInput ) {
            if ( userInput - systemInput > 10 ) {
                System.out.println("Too High");
            }
            else {
                System.out.println("Little High");
            }
        }
        else if ( noOfGuesses < 10 && userInput < systemInput ) {
            if ( systemInput - userInput > 10 ) {
                System.out.println("Too low");
            }
            else {
                System.out.println("Little low");
            }
        }
        return false;
}
```

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}

// main class
public class task_2 {

	// static method to take integer input without any limit and exception error
	// exception handling and input limit handling
	public static int takeIntegerInput(int limit) {
		int input = 0;
		boolean flag = false;

		while ( !flag ) {
			try {
				Scanner sc = new Scanner(System.in);
				input = sc.nextInt();
				flag = true;

				if ( flag && input > limit || input < 1 ) {
					System.out.println("Choose the number between 1 to " +
limit);
					flag = false;
				}
			}
			catch ( Exception e ) {
				System.out.println("Enter only integer value");
				flag = false;
			}
		};
		return input;
	}
```

```
// main method
public static void main(String[] args) {

	// input for start the game
	System.out.println("1. Start the Game \n2. Exit");
	System.out.print("Enter your choice : ");
	int choice = takeIntegerInput(2);
	int nextRound = 1;
	int noOfRound = 0;

	if ( choice == 1 ) {

		// to check next round is there or not
		while ( nextRound == 1 ) {
			// creating object of Game class
			Game game = new Game();
			boolean isMatched = false;
			boolean isLimitCross = false;
			System.out.println("\nRound " + ++noOfRound + " starts...");

			// to check correct guess and limit cross
			while ( !isMatched && !isLimitCross) {
				isLimitCross = game.takeUserInput();
				isMatched = game.isCorrectGuess();
			}
			// input for next round
			System.out.println("1. Next Round \n2. Exit");
			System.out.println("Enter your choice : ");
			nextRound = takeIntegerInput(2);
			if ( nextRound != 1 ) {
				System.exit(0);
```

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                                        }
                                }
                        }
                        else {
                                System.exit(0);
                        }
                }
        }
```