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TASK1

NUMBER GAME

### 🎮 Project Title: ****Number Guessing Game****

### 📌 ****Objective:****

The main goal of this project is to develop a simple Java-based console game where the player guesses a randomly generated number within limited attempts.

### 🛠️ ****Tools Used:****

* **Programming Language:** Java
* **IDE (Optional):** IntelliJ IDEA / Eclipse / VS Code
* **Input Method:** Scanner class for user input

### 🔁 ****Working of the Game:****

1. The user is greeted and informed that they have 8 chances to guess the correct number.
2. A random number between 1 and 100 is generated using the getrandN() method.
3. The user tries to guess the number:
   * If the guess is correct, they win that round.
   * If not, they are told if their guess was **"Too High"** or **"Too Low"**.
4. After 8 unsuccessful attempts, the correct number is revealed.
5. The player can choose to play again or exit the game.
6. At the end, their total score (number of rounds won) is displayed.

📄 **Code:**

import java.util.Scanner;

public class NumberGame

{

    public static void main(String[] *args*) {

        Scanner sc=new Scanner(System.in);

        int chances=8;

        int finals=0;

        boolean playAgain=true;

        System.out.println("Welcome Buddy!");

        System.out.println("Hey Buddy, you have" + chances + " chances to win the game");

        while (playAgain) {

            int rand = getrandN(1,100);

            boolean guess=false;

            for(int i=0;i<chances;i++){

                System.out.println("chances"+(i+1)+" Enter your guess:");

                int user=sc.nextInt();

                if(user==rand){

                    guess=true;

                    finals+=1;

                    System.out.println("You Win it.");

                    break;

                }

                else if (user>rand){

                    System.out.println("Too High");

                }

                else{

                    System.out.println("Too Low");

                }

            }

            if(guess==false){

                System.out.println("Sorry Buddy .You lost the chances.The number is "+rand);

            }

            System.out.println("Do you want to play Again(y/n)");

            String pA=sc.next();

            playAgain=pA.equalsIgnoreCase("y");

        }

        System.out.println("That's it Buddy ,hope you enjoyed it");

        System.out.println("Here is your Score"+finals);

        }

         public static int getrandN(int *min*,int *max*) {

            return (int)(Math.random()\*(*max*-*min*+1)+*min*);

    }

}

📊 **Output Sample:**

PS C:\Users\Asus Tuf\OneDrive\Desktop\codsoft\task 1> & 'C:\Program Files\Java\jdk-24\bin\java.exe' '--enable-preview' '-XX:+ShowCodeDetailsInExceptionMessages' '-cp' 'C:\Users\Asus Tuf\AppData\Roaming\Code\User\workspaceStorage\117dc84579cc9967c3512c4dd1fc6d05\redhat.java\jdt\_ws\task 1\_3da14a86\bin' 'NumberGame'

Welcome Buddy!

Hey Buddy, you have8 chances to win the game

chances1 Enter your guess:

50

Too High

chances2 Enter your guess:

20

Too Low

chances3 Enter your guess:

25

Too Low

chances4 Enter your guess:

30

Too Low

chances5 Enter your guess:

40

Too High

chances6 Enter your guess:

33

Too Low

chances7 Enter your guess:

36

You Win it.

Do you want to play Again(y/n)

**✅ Features:**

* Random number generation
* Controlled number of attempts
* Option to replay the game
* User-friendly messages

**💡 Learning Outcomes:**

* Use of **loops** and **conditional statements**
* Implementation of **random number logic**
* Use of **methods and Scanner class**
* Understanding **basic game logic** in Java

**📌 Conclusion:**

This simple project helps beginners understand the flow of control structures and basic input/output in Java. The "Number Game" is a fun way to practice decision-making and loop constructs effectively.