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Open Ended Lab

Objective:

Implementation of previous Knowledge.

Lab Goal:

To enhance the previous Knowledge.

Lab Overview:

It's a simple number guessing game in which user can guess the number in three attempts and he also have full freedom to skip the game or to play more after any attempt. This program has also a ability to show the user how many time times he/she guessed right.

Program Description:

Math.random():

It's a method of class math which is present in java.lang package which is auto imported. It can generate the real value between 0.0 to 1.0 while lower limit is included and upper limit is excluded.

If-else:

It's a conditional statement which works on Boolean value. If the condition of if-body becomes true then the if-block will be executed otherwise else-block will be executed.

For-loop:

It belongs to the family of pretest type loops. It can repeatedly execute a block until the condition Would not becomes wrong.

Continue Statement:

The continue statement in programming works somewhat like the break statement. Instead of forcing termination, it forces the next iteration of the loop to take place, skipping any code in between. For the for loop, continue statement causes the conditional test and increment portions of the loop to execute.

Break Statement:

Whenever a break statement is encountered inside a loop, the control directly comes out of loop terminating it. It is used along with if statement, whenever used inside loop so that it occurs only for a particular condition.

Program Source code:

```
package openended;
import java.util.Scanner;
public class OpenEnded {
public static void main(String[] args) {
Scanner sc=new Scanner(System.in);
int random_no,count = 0,guess;
String Ans,str ="Yes";
System.out.println("----------------Welcome to Number Guessing game----------------");
for(int i=1;i<=3;i++){
```

```
random_no=(int)(Math.random()*1000);
System.out.print("Plz guess the number!");
guess=sc.nextInt();
System.out.println("Hint---------->The number ranges from 0 to 1000!");
if(guess==random_no){
System.out.println("You guessed Right, You Win!");
count++;
}
else{
System.out.println("Sorry You guessed Wrong, You lose!");
}
System.out.println("Do you want to play again?");
Ans=sc.next();
if(Ans.equals(str)){
continue;
}
else{
break;
}
}
System.out.println("May be You quit or may you have no more attempts!");
System.out.println("You Scored  "+count+"  out of 3!");
}
}
```

Output:

----------Welcome to Number Guessing game----------

Plz guess the number!45

Hint---------->The number ranges from 0 to 1000!

Sorry You guessed Wrong, You lose!

Do you want to play again?

Yes

Plz guess the number!34

Hint---------->The number ranges from 0 to 1000!

Sorry You guessed Wrong, You lose!

Do you want to play again?

Yes

Plz guess the number!45

Hint---------->The number ranges from 0 to 1000!

Sorry You guessed Wrong, You lose!

Do you want to play again?

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May be You quit or may you have no more attempts!

You Scored 0 out of 3!