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Kodnest

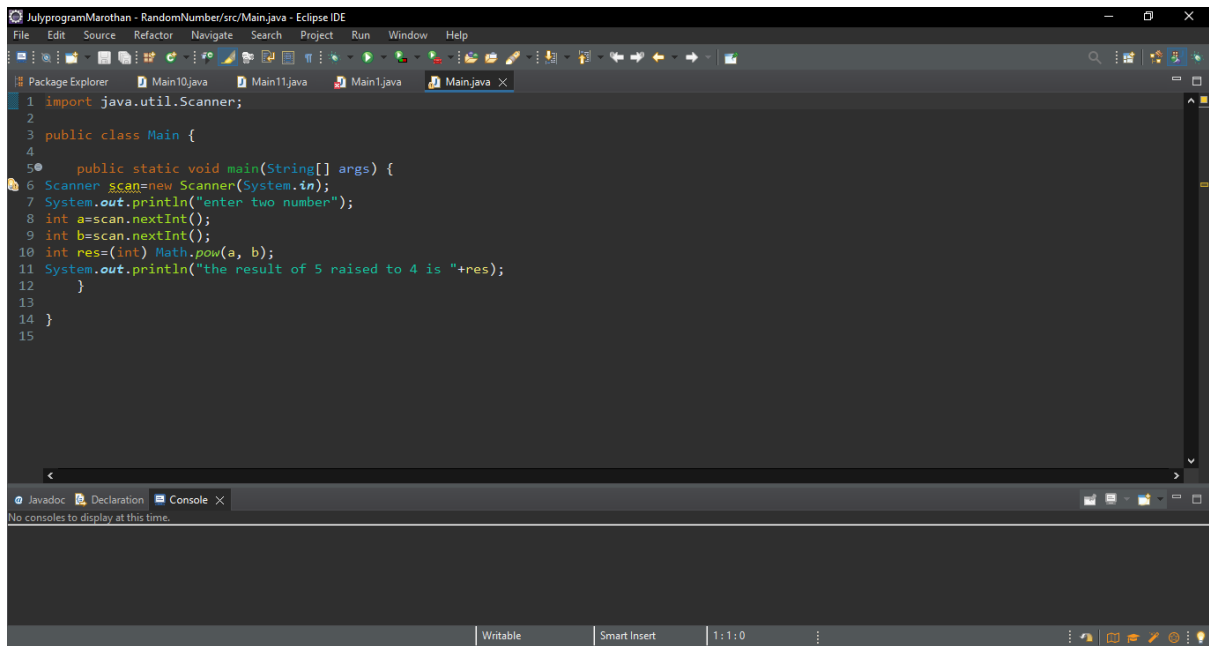
ASSIGNMENT

Usage of pow() present in math class?

pow() is an built-in method in Java Math class and is used to calculate the power of a given number. The power of a number refers to how many times to multiply the number with itself.



Example:

A screenshot of the Eclipse IDE interface. The main editor window shows a Java file named 'Main.java' with the following code:

```
1 import java.util.Scanner;
2
3 public class Main {
4
5     public static void main(String[] args) {
6         Scanner scan=new Scanner(System.in);
7         System.out.println("enter two number");
8         int a=scan.nextInt();
9         int b=scan.nextInt();
10        int res=(int) Math.pow(a, b);
11        System.out.println("the result of 5 raised to 4 is "+res);
12    }
13 }
14 }
15 }
```

The IDE's Package Explorer on the left shows the project structure. The bottom console window is empty, displaying 'No consoles to display at this time.' The status bar at the bottom indicates 'Writtable', 'Smart Insert', and '1:1:0'.

Fig: pow() in math

Complete description of random()?

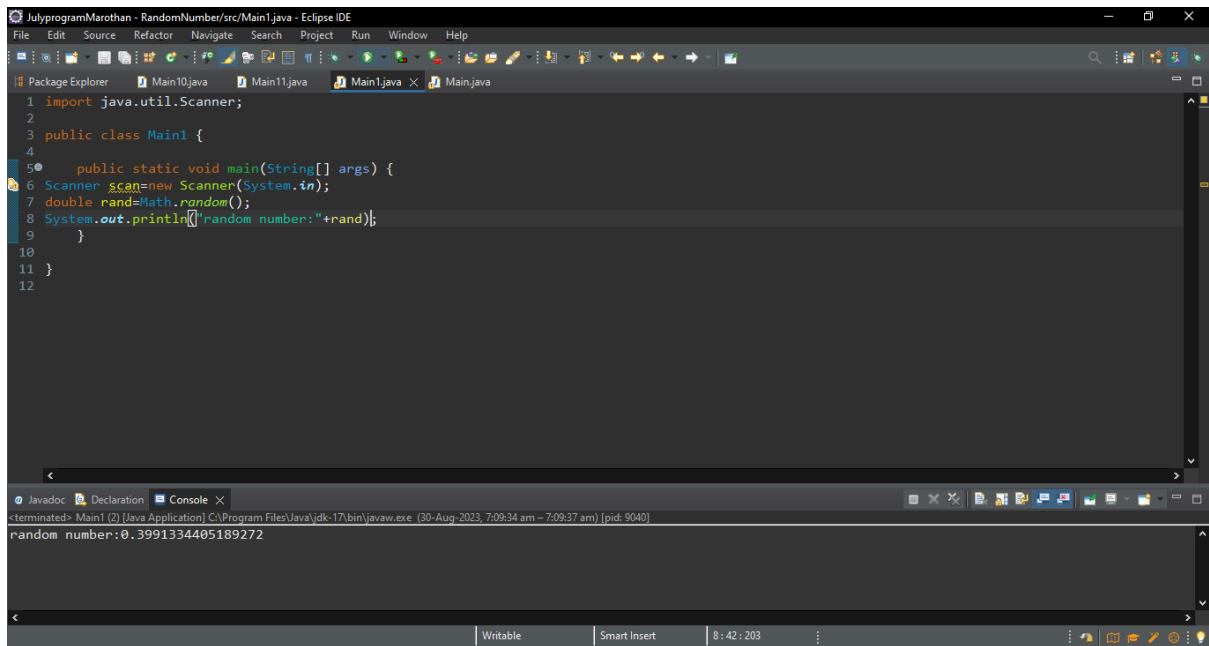
The random() method returns a pseudorandom double type number greater than or equal to 0.0 and less than 1.0.

When this method is first called, it creates a single new pseudorandom-number generator, exactly as if by the expression new java.

Declaration:

Public static double random()

Example:



```
1 import java.util.Scanner;
2
3 public class Main1 {
4
5     public static void main(String[] args) {
6         Scanner scan=new Scanner(System.in);
7         double rand=Math.random();
8         System.out.println("random number:"+rand);
9     }
10 }
11
12
```

Console Output:

```
<terminated> Main1 (2) [Java Application] C:\Program Files\Java\jdk-17\bin\javaw.exe (30-Aug-2023, 7:09:34 am - 7:09:37 am) [pid: 9040]
random number:0.3991334405189272
```

Fig: eg of random()

What is the use of random class?

Random class is part of java. util package. Random class is used to generate pseudo-random number in java. An instance of the class is thread-safe. The instance of this class is however cryptographically insecure.

This class provides various method calls to generate different random data types such as float, double ,int.

Declaration:

Public class Random

Extends object

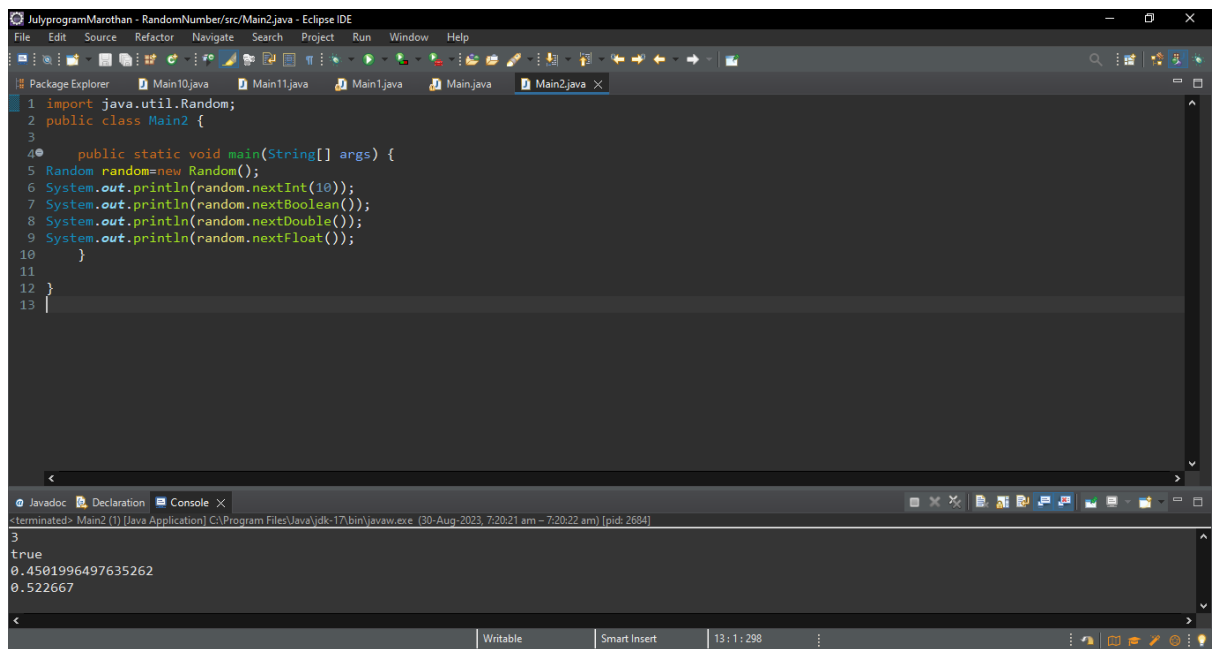
Implements Serializable

Methods:

There are several methods like,

- Java. util. Random. double():
- Java. util. Random. ints():
- Java. util. Random. longs():
- Java. util. Random. nextBoolean():

Example:



The screenshot shows the Eclipse IDE interface. The main editor displays a Java file named Main2.java with the following code:

```
1 import java.util.Random;
2 public class Main2 {
3
4     public static void main(String[] args) {
5         Random random=new Random();
6         System.out.println(random.nextInt(10));
7         System.out.println(random.nextBoolean());
8         System.out.println(random.nextDouble());
9         System.out.println(random.nextFloat());
10    }
11 }
12 }
13 |
```

The bottom of the IDE shows the Console view with the following output:

```
<terminated> Main2 (1) [Java Application] C:\Program Files\Java\jdk-17\bin\javaw.exe (30-Aug-2023, 7:20:21 am - 7:20:22 am) [pid: 2684]
3
true
0.4501996497635262
0.522667
```

Fig: eg for Random package