ASSIGNMENT -8

The use of pow():

pow() is used to return the value of first argument raised to the power of the second argument. The return type of pow() method is double.

Syntax:

public static double pow(**double** a, **double** b)

```
public class Main {

    public static void main(String[] args) {
        double x = 5;
        double y = 4;
        System.out.println(Math.pow(x, y));
    }

}
```

```
625.0
```

Random calss in java:

Java Random class is used to generate a stream of pseudorandom numbers. The algorithms implemented by Random class use a protected utility method than can supply up to 32 pseudorandomly generated bits on each invocation.

Useage of Random

Random class is used to generate pseudo-random numbers in java. An instance of this 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.

Constructors:

Random() : Creates a new random number generator

Random(Long seed): Creates a new random number generator using a single long seed.

Complete description of random():

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. util. Random.

Declaration of Java Math random()

Below is the declaration of java.lang.Math.random() method is mentioned below:

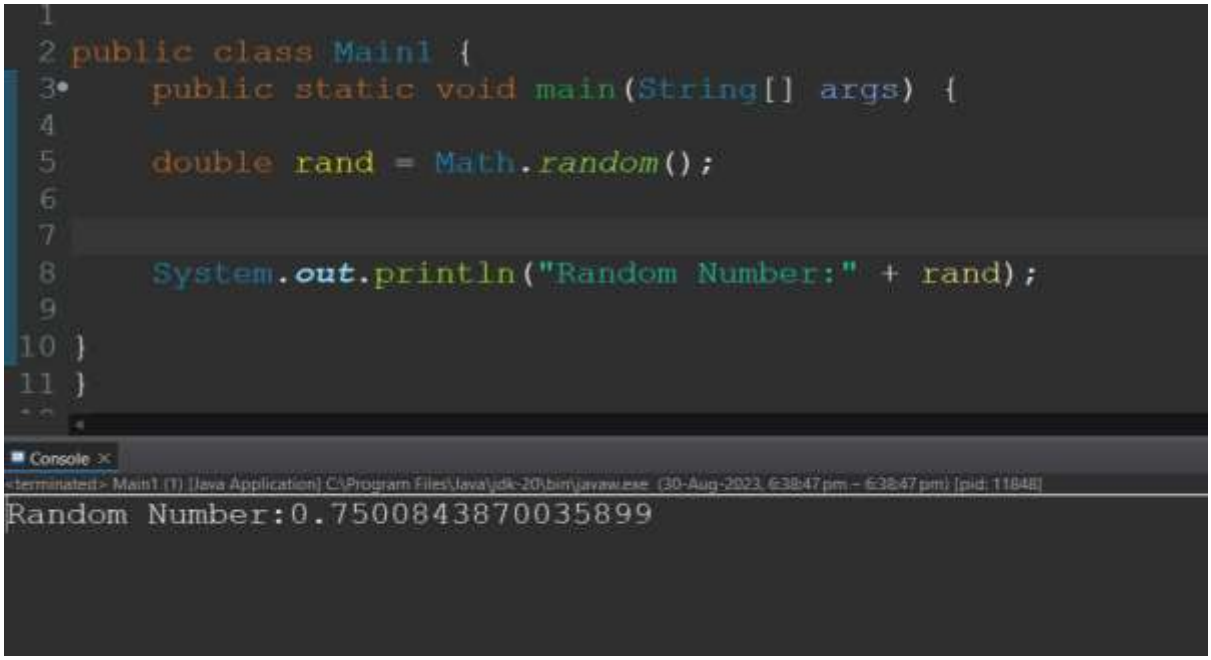
public static double random()

Return Type

This method returns a pseudorandom double greater than or equal to 0.0 and less than 1.0.

Java Math random() Method with Examples

Example 1: To show the working of **java.lang.Math.random()** method.



How to Generate Random Number in Java

In **Java** programming, we often required to **generate random numbers** while we develop applications. Many applications have the feature to **generate numbers randomly**, such as to verify the user many applications use the **OTP**. The best example of random numbers is dice. Because when we throw it, we get a random number between 1 to 6.

In this section, we will learn what is a **random number** and **how to generate random numbers in Java**.

Random Number

Random numbers are the numbers that use a large set of numbers and selects a number using the mathematical algorithm. It satisfies the following two conditions:

- The generated values uniformly distributed over a definite interval.
- It is impossible to guess the future value based on current and past values.

Using the Math.random() Method

The Java **Math** class has many methods for different mathematical operations. One of them is the **random()** method. It is a **static** method of the Math class. We can invoke it directly. It generates only **double** type random number **greater than or equal to 0.0** and **less than 1.0**. Before using the random() method, we must import the java.lang.Math class.

Syntax:

public static double random()

What is the use of random class of inbuilt class:

Random class is used to generate pseudo-random numbers in java. An instance of this 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.