NAME: Thejus Gowda PN
email: thejusgowdapn1059@gmail.com

RANDOM CLASS

In Java, the `Random` class is a part of the `java.util` package and is used to generate pseudorandom numbers. Pseudorandom numbers are numbers that appear random but are actually generated using a deterministic process. The `Random` class provides methods to generate different types of random data, such as integers, doubles, and bytes.

Here are some of the commonly used methods of the `Random` class:

1. `nextInt()`: Generates a pseudorandom integer.
2. `nextInt(int bound)`: Generates a pseudorandom integer between 0 (inclusive) and the specified bound (exclusive).
3. `nextDouble()`: Generates a pseudorandom double between 0.0 (inclusive) and 1.0 (exclusive).
4. `nextLong()`: Generates a pseudorandom long.
5. `nextBoolean()`: Generates a pseudorandom boolean.
6. `nextBytes(byte[] bytes)`: Generates pseudorandom bytes and places them into the specified byte array.

Here's an example of using the `Random` class in Java:

```java
import java.util.Random;

public class RandomExample {
    public static void main(String[] args) {
        // Create a Random object
        Random random = new Random();

        // Generating random integers
        int randomNumber1 = random.nextInt(); // Generates any integer
        int randomNumber2 = random.nextInt(100); // Generates integer between 0 (inclusive) and 100 (exclusive)

        // Generating random doubles
        double randomDouble = random.nextDouble(); // Generates double between 0.0 (inclusive) and 1.0 (exclusive)

        // Generating random booleans
```

```java
        boolean randomBoolean = random.nextBoolean(); // Generates true or false
randomly

        // Generating random bytes
        byte[] randomBytes = new byte[5];
        random.nextBytes(randomBytes); // Fills the byte array with random bytes

        // Output the generated values
        System.out.println("Random Integer 1: " + randomNumber1);
        System.out.println("Random Integer 2: " + randomNumber2);
        System.out.println("Random Double: " + randomDouble);
        System.out.println("Random Boolean: " + randomBoolean);
        System.out.print("Random Bytes: ");
        for (byte b : randomBytes) {
            System.out.print(b + " ");
        }
    }
}
```

output :

Random Integer 1: -535756618
Random Integer 2: 70Random Double: 0.7360655697897535
Random Boolean: true
Random Bytes: -14 93 -72 -92 -50