JAVA.UTIL.RANDOM CLASS IN JAVA

By
M. BABY ANUSHA,
ASST.PROF IN CSE DEPT.,
RGUKT,NUZVID

JAVA.UTIL.RANDOM CLASS IN JAVA

- Random class is used to generate pseudo-random numbers in java.

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

- The **Java Random class** is a part of the java. util package and contains inbuilt methods to generate random numbers.

- The following import statement must be included in your code when using this class.

  import java.util.Random;

JAVA.UTIL.RANDOM CLASS IN JAVA

Constructor:

- **Random()**: Creates a new random number generator.

METHODS OF RANDOM CLASS:

- **java.util.Random.doubles():** Returns an effectively unlimited stream of pseudo random double values, each between zero (inclusive) and one (exclusive)
  Syntax:
  public DoubleStream doubles()
- **Returns:** a stream of pseudo random double values

JAVA.UTIL.RANDOM.INTS():

- **java.util.Random.ints():**

   Returns an effectively unlimited stream of pseudo random int values
   Syntax:

   public IntStream ints()

   Returns: a stream of pseudo random int values

JAVA.UTIL.RANDOM.LONGS():

- **java.util.Random.longs():**

  Returns an effectively unlimited stream of pseudo random long values
  Syntax:

- **public LongStream longs()**

  Returns: a stream of pseudorandom long values

JAVA.UTIL.RANDOM.NEXT(INT BITS)

- **next(int bits): java.util.Random.next(int bits)**
  Generates the next pseudo random number
  Syntax:

- **protected int next(int bits) Parameters:**

- bits - random bits

- **Returns:** the next pseudo random value from this random number generator's sequence

JAVA.UTIL.RANDOM.NEXTBOOLEAN():

- **java.util.Random.nextBoolean():**

  Returns the next pseudo random, uniformly distributed boolean value from this random number generator's sequence
  Syntax:

- **public boolean nextBoolean()**

  Returns: the next pseudorandom, uniformly distributed boolean value from this random number generator's sequence

JAVA.UTIL.RANDOM.NEXTBYTES(BYTE[] BYTES):

- java.util.Random.nextBytes(byte[] bytes):
  Generates random bytes and places them into a user-supplied byte array
  Syntax:

- **public void nextBytes(byte[] bytes)**

JAVA.UTIL.RANDOM.NEXTDOUBLE():

- java.util.Random.nextDouble():
- Returns the next pseudo random, uniformly distributed double value between 0.0 and 1.0 from this random number generator's sequence

Syntax:

- **public double nextDouble()**
- **Returns:** the next pseudo random, uniformly distributed double value between 0.0 and 1.0 from this random number generator's sequence

JAVA.UTIL.RANDOM.NEXTFLOAT():

- java.util.Random.nextFloat():
- Returns the next pseudo random, uniformly distributed float value between 0.0 and 1.0 from this random number generator's sequence

   Syntax:
- **public float nextFloat()**
- **Returns:** the next pseudorandom, uniformly distributed float value between 0.0 and 1.0 from this random number generator's sequence

JAVA.UTIL.RANDOM.NEXTINT():

- [java.util.Random.nextInt()]():
Returns the next pseudorandom, uniformly distributed int value from this random number generator's sequence
Syntax:

- **public int nextInt()**

Returns: the next pseudorandom, uniformly distributed int value from this random number generator's sequence

JAVA.UTIL.RANDOM.NEXTINT(INT BOUND):

- **java.util.Random.nextInt(int bound):**
  Returns a pseudo random, uniformly distributed int value between 0 (inclusive) and the specified value (exclusive), drawn from this random number generator's sequence
  Syntax:

- **public int nextInt(int bound) Parameters:**
  bound - the upper bound (exclusive). Must be positive.

JAVA.UTIL.RANDOM.NEXTLONG():

- **java.util.Random.nextLong():**
- Returns the next pseudorandom, uniformly distributed long value from this random number generator's sequence
Syntax:public long nextLong()
- **Returns:** the next pseudorandom, uniformly distributed long value from this random number generator's sequence