

Answer on Question # 57120 – Programming – Java | JSP

[// RandomGenerator.java](#)

```
package random_generator;

import java.util.Random;

public class RandomGenerator {

    public RandomGenerator() {
        // TODO Auto-generated constructor stub
    }

    // c
    public int fibanachiNumbers(int n){
        int p=0;
        if(n-1>=0){
            p=fibanachiNumbers(n-1);
        }
        return n+p;
    }
    //b
    public int powerNumbers(int n){
        return (int)Math.pow(2, n);
    }
    //a
    public int firstNumbers(int n){
        Random r = new Random(n);
        return r.nextInt(n);
    }
    //d
    public int squereNumbers(int n ){
        Random r = new Random(n);
        return (int)Math.pow(r.nextInt(n),r.nextInt(n));
    }

}
```

[// RandomGeneratorImproved.java](#)

```
package random_generator;

import java.util.Random;

public class RandomGeneratorImproved {

    public RandomGeneratorImproved() {
        // TODO Auto-generated constructor stub
    }

}
```

```

public int nextPrime(int n){
    int p;
    Random r = new Random();
    RandomGenerator g = new RandomGenerator();

    switch((p=r.nextInt(3))){
    case 0:{
        //      System.out.println(p);
        //      System.out.println("1-");
        return g.firstNumbers(r.nextInt(n)) ;
    }
    case 1:{
        //      System.out.println(p);
        //      System.out.println("2-");
        return g.powerNumbers(r.nextInt(n)) ;
    }
    case 2:{
        //      System.out.println(p);
        //      System.out.println("3-");
        return g.fibonacciNumbers(r.nextInt(n)) ;
    }
    case 3:{
        //      System.out.println(p);
        //      System.out.println("4-");
        return g.squereNumbers(r.nextInt(n)) ;
    }
    }
    return -1;
}

```

```

public int nextPrime(int low, int high){

    Random r = new Random();
    int n = r.nextInt(100),p=0;
    RandomGenerator g = new RandomGenerator();

    switch((p=r.nextInt(3))){
    case 0:{
        //      System.out.println(p);
        //      System.out.println("1-");
        p= g.firstNumbers(r.nextInt(n)) ;
    }
    case 1:{
        //      System.out.println(p);
        //      System.out.println("2-");
        p= g.powerNumbers(r.nextInt(n)) ;
    }
    case 2:{
        //      System.out.println(p);
        //      System.out.println("3-");
    }
    }
}

```

```

        p= g.fibonacciNumbers(r.nextInt(n)) ;
    }
    case 3:{
        //      System.out.println(p);
        //      System.out.println("4-");
        p= g.squereNumbers(r.nextInt(n)) ;
    }
}

if(p<high ){
    if( p>low){
        return p ;
    };
}

System.out.println("There is no prime number in that range " + p);
return -1;
}

```

```

public static void main(String[] args) {
    // TODO Auto-generated method stub
    RandomGeneratorImproved p = new RandomGeneratorImproved();
    System.out.println(p.nextPrime(10));

    System.out.println(p.nextPrime(5, 130000));
}
}

```