792. Kth Prime Number

* [Description](http://lintcode.com/en/problem/kth-prime-number/" \l "description)
* [Notes](http://lintcode.com/en/problem/kth-prime-number/#note)
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Given the prime number n, output the number of prime numbers

 Notice

* n <= 100000
* The prime number is defined as a natural number greater than 1, and there are no other factors except 1 and it itself.

Have you met this question in a real interview?

Yes

**Example**

Given n = 3, return 2.

explanation:

[2,3,5], 3 is the second prime number.

Given n = 11, return 5.

explanation:

[2,3,5,7,11], 11 is the fifth prime number.

<http://lintcode.com/en/problem/kth-prime-number/>

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\*/

package javaapplication1;

import java.util.\*;

/\*\*

\*

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\*/

public class JavaApplication1 {

static int sieveOfEratosthenes(int n)

{

// Create a boolean array "prime[0..n]" and initialize

// all entries it as true. A value in prime[i] will

// finally be false if i is Not a prime, else true.

boolean prime[] = new boolean[100000+1];

for(int i=0;i<100000;i++)

prime[i] = true;

for(int p = 2; p\*p <=100000; p++)

{

// If prime[p] is not changed, then it is a prime

if(prime[p] == true)

{

// Update all multiples of p

for(int i = p\*2; i <= 100000; i += p)

prime[i] = false;

}

}

// Print all prime numbers

ArrayList<Integer> lista = new ArrayList();

for(int i = 2; i <= 100000; i++)

{

if(prime[i] == true) {

// System.out.print(i + " ");

lista.add(i);

}

}

/\*

lista.forEach((elem) -> {

System.out.print(elem + " ");

});\*/

return lista.indexOf(n)+1;

}

public static void main(String[] args) {

// TODO code application logic here

int[] arr = {2,3,5,7,11};

System.out.println(sieveOfEratosthenes(11) );

}

}