**Project Objective**

As a developer, write a program to find the longest increasing subsequence.

**Problem Statement**

As a developer, write a Java code to find the longest increasing subsequence from a list of random numbers.

**Source Code**

**package** com.org.subsequence;

**import** java.util.Scanner;

**public** **class** LongestIncreasingSubsequence {

**public** **static** **int** find(**int**[] a, **int** i)

{

**if** (i == 0)

{

**return** 1;

}

**int** l = 1;

**for** (**int** j = 0; j < i; j++)

{

**if** (a[i] > a[j])

{

//recursively calling the find() method

l = Math.*max*(l,*find*(a, j) + 1);

}

}

**return** l;

}

**public** **static** **void** main(String[] args) {

Scanner sc = **new** Scanner(System.***in***);

**try**

{

System.***out***.println("Enter the number of elements:");

**int** n=sc.nextInt();

//checking if the number of elements provided by the user is greater than or equal to 100

**if**(n>=100)

System.***out***.println("Limit reached");

**else**

{

**int**[] a=**new** **int**[n];

System.***out***.println("Enter elements:");

**for**(**int** i=0;i<n;i++)

{

a[i]=sc.nextInt();

}

//calling find() method

System.***out***.printf("Length of longest increasing subsequence: %d%n",*find*(a, n-1));

}

}

**catch**(Exception e)

{

e.printStackTrace();

}

**finally**

{

sc.close();

}

}

}