**Source Code**

**package** lesson4;

**import** java.util.Scanner;

**public** **class** SubSequence {

**public** **static** **int** longestSubSeq(**int** subArr[],**int** n)

{

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

arrlen[0] = 1;

**for** (**int** i = 1; i < n; i++) {

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

**if** (subArr[j] < subArr[i] && arrlen[j] > arrlen[i])

arrlen[i] = arrlen[j];

}

arrlen[i]++;

}

**int** lis = 0;

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

lis = Math.*max*(lis, arrlen[i]);

**return** lis;

}

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

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

System.***out***.println("Enter the size of an Array:");

**int** n;

n=sin.nextInt();

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

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

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

{

arr[i]=sin.nextInt();

}

System.***out***.println("Length of the Longest Increasing Sub Sequence:"+*longestSubSeq*(arr, n));

}

}