**Source Code:**

**package** project;

/\* A Naive Java Program for LIS Implementation \*/

**class** LIS {

**staticint***max\_ref*; // stores the LIS

**staticint** \_lis(**int**arr[], **int**n)

{

**if** (n == 1)

**return** 1;

**int**res, max\_ending\_here = 1;

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

res = *\_lis*(arr, i);

**if** (arr[i - 1] <arr[n - 1]

&&res + 1 >max\_ending\_here)

max\_ending\_here = res + 1;

}

**if** (*max\_ref*<max\_ending\_here)

*max\_ref* = max\_ending\_here;

**return**max\_ending\_here;

}

**staticint**lis(**int**arr[], **int**n)

{

*max\_ref* = 1;

*\_lis*(arr, n);

**return***max\_ref*;

}

**publicstaticvoid**main(String args[])

{

**int**arr[] = { 10, 22, 9, 33, 21, 50, 41, 60 };

**int**n = arr.length;

System.***out***.println("Length of lis is " + *lis*(arr, n)

+ "\n");

}

}