**Source Code For Longest Increasing Subsequences :**

**package** LongestIncreasingSubsequences;

**public** **class** LIS {

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

**int**[] nums = {1,3,2,9,6,10,5};

*printLIS*(nums);

}

**public** **static** **void** printLIS(**int**[] nums){

String[] paths = **new** String[nums.length];

**int**[] sizes = **new** **int**[nums.length];

**for**(**int** i=0; i<nums.length; i++){

sizes[i] = 1;

paths[i] = nums[i] + " " ;

}

**int** maxLength = 1;

**for**(**int** i=1; i<nums.length; i++){

**for**(**int** j=0; j<nums.length; j++){

**if**(nums[i]>nums[j] && sizes[i] < sizes[j] + 1){;

sizes[i] = sizes[j] + 1;

paths[i] = paths[j] + nums[i] + " ";

**if**(maxLength < sizes[i])

maxLength = sizes[i];

}

}

}

**for**(**int** i=1; i<nums.length; i++){

**if**(sizes[i] == maxLength)

System.***out***.println("Longest Increasing Subsequences : " + paths[i]);

}

}

}