Longest Increasing Subsequence:-

Consider the below elements

$$5 \quad 8 \quad 7 \quad 1 \quad 9$$

here the length the of the longest subsequence
is 3 [5, 8, 9]
here each individual element is a subsequence
which is having length 1

```
lis = [1] * len(nums)
for i in range (1, len(nums)):
    for j in range (0, i):
        if nums[i] > nums[j] and
                lis[i] <= lis[j]:
            lis[i] = 1 + lis[j]

return max(lis)
```