**Project Writeup**

**Project Name:** **LIS (Longest Increasing Subsequence)**

**GITHUB LINK:-**

**Project Description:-**

The Longest Increasing Subsequence (LIS) problem is to find the length of the

longest subsequence of a given sequence such that all elements of the

subsequence are sorted in increasing order.

To make use of recursive calls, this function must return two things:

1) Length of LIS ending with element arr[n-1]. We use max\_ending\_here for this

Purpose.

2) Overall maximum as the LIS may end with an element before arr[n-1] max\_ref is used

this purpose.

The value of LIS of full array of size n is stored in max\_ref which is our result.