**Project Objective:**

As a developer, write a program to find the longest increasing subsequence.

**Background of the problem statement:**

As a developer, write a Java code to find the longest increasing subsequence from a list of random numbers.

**You must use the following:**

* Eclipse/IntelliJ: An IDE to code for the application.
* Java: A programming language.
* Git: To connect and push files from the local system to GitHub.
* GitHub: To store the application code and track its versions.
* Core Java concepts: variables, data types, operators, type casting, control statements, class, objects, access specifiers, and core keywords like final, this, and static.

**Following requirements should be met:**

* The versions of the code should be tracked on GitHub repositories.
* The code should work properly for n numbers, where n<100.

Given an integer array nums, return the length of the longest strictly increasing subsequence.

A subsequence is a sequence that can be derived from an array by deleting some or no elements without changing the order of the remaining elements. For example, [3,6,2,7] is a subsequence of the array [0,3,1,6,2,2,7].

Example 1:

Input: nums = [10,9,2,5,3,7,101,18]

Output: 4

Explanation: The longest increasing subsequence is [2,3,7,101], therefore the length is 4.

Example 2:

Input: nums = [0,1,0,3,2,3]

Output: 4