**Algorithm of Longest Increasing Sequence**

1. Create an empty hash.
2. Insert all array elements to hash.
3. Do following for every element arr[i]
4. Check if this element is the starting point of a subsequence. To check this, simply look for arr [i] – 1 in the hash, if not found, then this is the first element a subsequence.
5. If this element is the first element, then count the number of elements in the consecutive starting with this element. Iterate from arr [i] + 1 till the last element that can be found.
6. If the count is more than the previous longest subsequence found, then update this.