## Assignment - 5

Find the  $n^{th}$  Fibonacci number using

- Brute force
- Top down DP
- Bottom up DP
- Bottom up DP with constant space complexity

Given an array of size n of distinct elements. Find the  $k^{th}$  (user input) smallest number using

- Linear time approach with group size 3
- $\bullet$  Linear time approach with group size 5
- Linear time approach with group size 7

and obtain the number of comparisons in this process. Also count the number of comparisons while sorting a group of 3/5/7 elements.