



**Data Structures and Algorithms.**

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**Unit 7 – Divide and conquer**

**Problem** - Implement a Python function based on the divide and conquer strategy in order to obtain the maximum element of a Python list.

**Problem** - Given a sorted list and a number, implement a function that returns True if the number is found in the list and False otherwise. The algorithm should be based on the divide and conquer strategy.

**Problem** - Implement the mergesort algorithm in Python.

**Problem** - Implement the quicksort algorithm in Python.