- When the average running time of Merge sort and quick sort is the same asymptotically (i.e., O(nlogn), why is Quick sort considered much faster?

  - QS is inplace. No new array is created. Little additional memory is needed.
  - It has better cache memory use.
  - Has smaller constants in the time complexity formular.

- Implement both merge sort and quick sort algorithms and measure the actual running time.

  YES SIR!

- What are the in-built sorting algorithms used by Java and Python?

  - Python - timsort - merge +insertion
  - Java - int/ double - dual-pivot quick sort
  - Java - Object - timsort