

1. Merger Sort
  - [Counting inversion](#)
  - [Reverse Pair](#)
2. Quick Sort
3. Heap Sort
4. Binary Search
  - [First and Last Occurrence of the target](#)
  - [Koko Eating Banana](#) (Similar Pattern)
  - [Binary Search in 2D Matrix](#)
  - [Binary Search in row and column sorted 2D Matrix](#)
5. DFS
  - Cycle Detection
  - [Number of Provinces](#) (Can solve Using Both DFS and BFS)
  - [Number of Island](#)
  - [Perimeter of Island](#)
  - [Maximum Area of Island](#)
  - [Distinct Number of Island](#)
  - [Count sub Island](#)
  - [Count Island divisible by K](#)
  - [Flood Fill](#)
  - [Pacific Atlantic Waterflow](#)
  - Topology Sort
6. BFS
  - Shortest Path
  - [Rotten Orange](#)
  - [Nearest 0/1](#)
  - [Shortest Path in Binary Matrix](#)
  - [Word ladder](#)
7. Matrix Multiplication
8. Closet Pair