1. Please explain what are DFS and BFS, what is the differences between them?

DFS is Depth-first search, an algorithm for searching tree or graph data structures. One starts at the root(selecting some arbitrary node as the root in the case of a graph) and explores as far as possible along each branch before backtracking.

BFS is Breadth-first search, an algorithm for traversing or search tree or graph data structures. It starts at the tree root(or some arbitrary node of a graph) and explores the neighbor node first, before moving to the next level neighbors.

Difference between BFS and DFS:

1. BFS visits nodes level by level in Graph. A node is fully explored before any other can begin. BFS uses Queue data structure to store unexplored nodes.
2. DFS visit nodes until reach a leaf or a node which doesn’t have non-visited nodes. Exploration of a node is suspended as soon as another unexplored is found. DFS uses Stack data structure to store unexplored nodes.