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

**Breadth First Search** (BFS) and **Depth First Search** (DFS) are two popular algorithms to search an element in Graph or to find whether a node can be reachable from root node in Graph or not.

BFS starts at the tree root (or some arbitrary node of a graph, sometimes referred to as a 'search key') and explores the neighbor nodes first, before moving to the next level neighbors. A node is fully explored before any other can begin.

DFS 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. Exploration of a node is suspended as soon as another unexplored is found.

BFS visit nodes level by level in Graph, while DFS visit nodes of graph depth wise. DFS visits nodes until reach a leaf or a node which doesn’t have non-visited nodes.

BFS uses Queue data structure to store Un-explored nodes, while DFS uses Stack data structure to store Un-explored nodes.

BFS is slower and require more memory, while DFS is faster and require less memory.