

1. What are the applications of BFS?

-Breadth first search can be used for various applications; for instance, it can be utilized for reference counting for Garbage collected languages, testing if a graph is bipartite, as well as finding locations on a map given a distance.

2. What are the applications of DFS? Explain how DFS is used in building a maze game.

-Depth first search can be utilized to detect cycles in a graph as well as finding optimal paths. For instance, in a maze game, depth first search would explore each path till it has failed; it will then back-track and search for alternative paths. The recursive nature of the DFS allows the stack to pop when it cannot move and locate unseen paths.