COMP 1123
Assignment 4

Yaşar University

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Assignment

1. Implement the queue ADT and implement breadth-first traversal (BFT)
    algorithm in graphs as a queue application. The details are given in
    the latest version of Labwork 11.

2. Implement depth-first traversal (DFT) algorithm in graphs a stack ap-
    plication as given below.

```
dft(g, s) //g is a graph, s is start vertex
    t <- create a stack
    dmap <- create a map of values for the vertices in g where the
                value associated with each vertex is false
    push s onto q
    mark s as discovered in dmap
    while t is not empty do
        v <- pop from t
        print "v is visited."
        for all edges of the form (v,w) in g do
            if w is not discovered in dmap then
                push w onto q
                mark w as discovered in dmap
            endif
        endfor
    endwhile
end
```