**BFS:**

A Breadth First Search (BFS) traverses nodes at a shallower depth before visiting the children of any node.

**DFS:**

A Depth First Search (DFS) traverses the children nodes at a depth before visiting the next node at any given level

**C**

**I**

**H**

**G**

**E**

**F**

**D**

**B**

**A**

**BFS:**

In the above figure, a BFS would visit the nodes in following order :

A, B, C, D, E, F, G, H , I

A BFS crawler assumes that pages at a shallower depth are more important.

The working of a BFS is like a queue, in which URL s are appended to the queue and visited in a FIFO order, so the children of node B, i.e E and F would appear before G and H in the queue.

**DFS:**

In the above figure, a DFS would visit the nodes in following order :

A, B, E, F, C, G, H ,D, I

A DFS crawler assumes that pages at a deeper level are more important.

The working of a DFS is like a stack, in which URL s are appended to the stack and visited in a LIFO order, so the children of node B, i.e E and F would appear before the next URL C.

A DFS search would be better if the search is a more specific type of search rather than a general one as the pages at deeper levels of a node would have more specific content about the search query

**Comparison between BFS and DFS approach for Q1:**

Using a BFS approach on the seed URL , the number of links matched were 1000

Whereas for DFS approach the number of links that matched were 647

First 5 URL in DFS approach:

http://en.wikipedia.org/wiki/Passive\_solar\_building\_design

http://en.wikipedia.org/wiki/Solar\_energy

http://en.wikipedia.org/wiki/Solar\_Energy\_(journal)

http://en.wikipedia.org/wiki/Solar\_heating

http://en.wikipedia.org/wiki/International\_Solar\_Energy\_Society

First 5 URL in BFS approach:

http://en.wikipedia.org/wiki/Passive\_solar\_building\_design

http://en.wikipedia.org/wiki/Solar\_energy

http://en.wikipedia.org/wiki/Solar\_heating

http://en.wikipedia.org/wiki/Solar\_photovoltaics

http://en.wikipedia.org/wiki/Solar\_thermal

After looking at the first 5 links from both the approaches to crawling, it can been observed that some of the links are similar, the ones which appear at shallower level.

However the links from DFS contain more specific pages related to the word “solar”

The links from BFS search contain mainly a broad number of pages which contain the word “solar” but not content-specific pages. This can be used if the search is to be more generic.