

### **Problem 1.**

Your program would ask a user for a web site address and a String, your program should now travers that site and up to 100 out bounding links from that site to find that string. If it finds it just print the line and the link of address it found it in.

An outbound link, also called an external link, is a link from your website to a different website

Your program should not visit the same page more than once.

Hint, use a link list to track all the already visited sites and to visited sites.

### **Problem 2.**

Write a Method that takes 2 file names and 2 strings, method will read from the old file and replace all the occurrences of old string with new string and enters it in the new file.

```
replaceStringFromSourceToTarget(String sourceFileName, String targetFileName,  
String oldString, String newString ) throws FileNotFoundException
```

### **Problem 3.**

Write a function that asks the user for a file name(file path) and prints to command line if the file exists or not.

User inputs: string and the URL

Give these 2 inputs to another function called subURLGenerate function where you check whether the string is present. If not, return an array list of URLs.

The subURLGenerate function works like below:

Scan each line on the webpage. Search for the string. If not found, search for the http address in that line. Save this HTTP address to a list. Scan next line...this repeats till traversing the webpage is finished. Return this list to the main program

In main program, read each URL in the array list. Check if it already exists in the Traversed URL list, For the first round, only the URL you entered will be in this list. If the URL doesn't already exist add them to the pending URL list. Once this is completed, check if the traversed list count is 100.

If not, remove the URL from 0<sup>th</sup> index of pending list and add to the traversed list. Pass this URL and search term to the subURLGenerate function. If term is found, print that it was found on this URL address. Else return the arraylist with the subURL lists. This will repeat

google.com -. url1, url2, ....

### Traversed URL List

[www.google.com](http://www.google.com)

url1

### Pending URL List

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