

CS311 - Analysis of Algorithms

Term Project

Milestone # 2: Pseudo code:

// this is the pseudo code for plagiarism checking tool , it will take 2 or more than 2 files and then highlight the matched area

str1[],str2[]

ArrayOfFile[] //it is dynamic array which contains the address of the files selected by user e.g at 0 index file1 address is placed, at 1 file1 address lies and so on.

for t=0 to ArrayOfFile.length

while(!(end of file1))

ArrayOfFile[t]<<str[0]

i=0;

while(str1[i]!=".")

ArrayOfFile[t]<<str1[i];

i++

while(!(end of file2))

ArrayOfFile[t+1]>>str2[0];

j=1

while(str2[j]!=0)

ArrayOfFile[t+1]<<str2[j]

j++

temp=0;

if((LongestCommonSubstring(str1,str2,lengthOfString1,
lengthOfString2)>temp)

temp=LongestCommonSubstring(str1,str2,lengthOfString1,
lengthOfString2)

// ArrayOfFile[t+1] whole text being compared with ArrayOfFile[t] line by line and the line which has the longest common substring with ArrayOfFile[t] line of ArrayOfFile[t+1] it will be stored in resultArray[]

resultArray[]=str2;

```

constant MAX_SIZE=10000

resultArray[MAX_SIZE]           //make it dynamic in our code

memoizedArray[MAX_SIZE][MAX_SIZE]

//Longest Common Substrings

function LongestCommonSubString(string string1[],string string2[], lengthOfString1,
lengthOfString2)

    if(lengthOfString1==0 OR lengthOfString2==0)

        return 0

    //if the data is already in the table then return it instead of recomputing it
    if(memoizedArray[m-1][n-1]!=-1)           //for this place -1 in the whole 2d array

        return memoizedArray[m-1][n-1]

    //case 1: if matches
    if(string1[m-1]==string2[n-1])

        return 1+LongestCommonSubstring(string1,string2, lengthOfString1-1,
lengthOfString2-1)

    //if do not match
    else

        return max(LongestCommonSubstring(string1,string2, lengthOfString1-1,
lengthOfString2),LongestCommonSubsequence(string1,string2, lengthOfString1,
lengthOfString2-1))

```


