

Assignment 3

Due Date: 8th-May-2020 (11:55 pm) (Friday)

Assignment Submission

All sections will submit the assignment on SLATE, if your section has Google Classroom then submit on Google Classroom before the deadline.

Anyone submits plagiarized assignment will get zero marks

This is a group Assignment. Cross Section group strictly not allowed.
Total Member allowed in a group = 3

Submit zip file contains this report and your project.

Zip file must be named as

Rollnumber1_Rollnumber2_Rollnumber3_Section_Assignment3

For example: 18f0123_18f0345_18f567_D_Assignment3

Member: 1 Question 1 Part a,b,c,d,e (Brute Force):

Roll No: _____

Section: _____

Name: _____

Member: 2 Question 1 Part a,b,c,d,e (KMP):

Roll No: _____

Section: _____

Name: _____

Member: 3 Question 2:

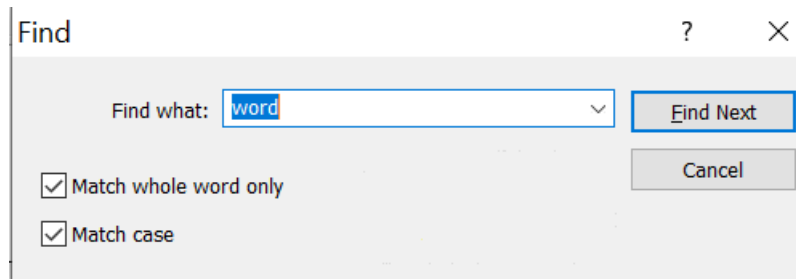
Roll No: _____

Section: _____

Name: _____

Question: 1 (Brute Force and KMP)

Create a word search program. Where user can search a specific word or sequence of words from the given list of files (Attached). It should work as following (GUI Application)



Functionalities

- a) Program must find the position of search word or sequence of words from given files and return name of file, row number and column number.
- b) Match whole word only [**Unchecked**]
 - a. Program should return Pakistan, adampak, abnopakis, and pak against 'pak' searched word because 'pak' is present in all of them. The length of return word and search word may differ.
- c) Match whole word only [**Checked**]
 - a. Program should return only pak against 'pak' searched word. The length of return word and search word should be same.
- d) Match case [**Unchecked**]
 - a. Program should return Bilal, bilal, bllaL against 'bilal'. The upper and lower case should not be checked
- e) Match case [**Checked**]
 - a. Program should only return bilal against bilal and BilaL against BilaL. The upper and lower case should be checked against each character.

Implement this by Brute Force and KMP, then compare the time taken in searching the words.

Time Taken, Brute Force: _____

Time Taken, KMP: _____

Question#2

Write the advantages of Brute force and Rabin-Karp over KMP. Explain in Detail (Minimum two-page report.)