

Assignment 5

CS 302 – Design and Analysis of Algorithm
Spring 2021

Deadline: 5th June 2021 (11:55PM)

Slate Deadline: 6th June 2021 (11:55PM)

(This assignment is for All Sections)

This is a group Assignment.

Cross Section group strictly NOT allowed.

Total Member allowed = Max: 3

Work Division is your responsibility in any case.

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1. A single violation of guideline will lead to Zero mark in your assignment.
 2. Slate address:
<http://slate.nu.edu.pk/portal>
OR
<http://203.124.42.218:8080/portal>
 3. You have been given whole **1 day for only submission** purpose so **NO email submission** will be accepted.
 4. You are encouraged to take help from Internet and books but clearly mention the source.
 5. This is a group Assignment, make groups on your own responsibility. Excuses will not be entertained like a member didn't attempt his/her part.
 6. Cross Section group strictly NOT allowed.
 7. **Total Member allowed = 3, Assignment will be checked as a whole work, not individual work will be marked as full work, so work division is your responsibility.**
 8. Work Division is your responsibility if members are less than 3.
 9. Only one member must Submit all members work in a zip file contains this report and your project.
 10. Zip file must be named as:
Rollnumber1_Rollnumber2_Rollnumber3_Section_Assignment5
For example: 19f0123_19f0345_19f0567_A_Assignment5

Member: 1 Brute Force and Question 2

Roll No: _____

Section: _____

Name: _____

Member: 2 RK Method

Roll No: _____

Section: _____

Name: _____

Member: 3 KMP Method

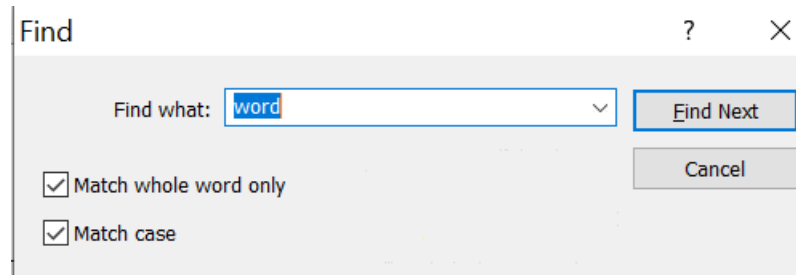
Roll No: _____

Section: _____

Name: _____

Question: 1 Menu base GUI Application is the requirement. [Implement Brute Force, RK and KMP algorithm for String Matching](#). Details are:

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.

Question 2: Write a detail comparison on Brute force, Rk and KMP algorithm of String Matching. Max 2 pages.