

National Institute of Technology Calicut
Department of Computer Science and Engineering
CS6103D Software Systems Lab - Monsoon 2021
Final Evaluation-Part 2

Perl questions

Duration: 30 min

1. Given a string, calculate the sum of similarities of the string S with each of its suffixes using perl program. For two strings A and B, similarity of the strings is defined to be the length of the longest prefix common to both strings. (The similarity of strings 'abc' and 'abd' is 2, while the similarity of strings 'aaa' and 'aaab' is 3.)

For example, if the string is ababaa then the suffixes of the string are 'ababaa', 'babaa', 'abaa', 'baa', 'aa' and 'a'. The similarities of these strings with the string 'ababaa' are 6,0,3,0,1, & 1 respectively. Thus, the answer should be $6 + 0 + 3 + 0 + 1 + 1 = 11$

Condition: Each string contains only lower case characters

(1 mark)

Sample Input & Output

Input: ababaa

Output: 11

Input: aa

Output: 3

Shell questions

1. Based on the examination results available in the format mentioned in the sample input, develop a shell script to print the following result statistics: **(1.5 mark)**

- (a) Find the toppers in each course and print course name along with topper name and mark.
- (b) Find the overall topper of the class.

The program should meet the following constraints:

- The input file should be taken as a command line argument.
Example: `./code.sh input.txt`
- Program should handle wrong arguments and output message 'wrong number of arguments'.
- Program should also check whether the input file exist or not. If not exists "File not accessible" message should be printed.

Sample Input & Output files are separately given