Data Structures and Algorithms Lab
10. Substring Search

Subject Code: 19ECSP201 **Lab No:** 10 **Semester:** III

Date: 16 Oct 2019 **Batch:** C

Question: Operating on Substring Search
Objective: Realizing the substring search algorithms and their importance

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This is a team activity. Following is the activity detail:
- The class will be divided into teams of four. Each team must comprise of 2 from C1 batch and two from C2 batch
- On the 16th of October, two students of C1 batch will solve a given **subtask 01** from 9.00 am to 11.59 am
- On the 17th of October, **subtask 02** will be floated as a take-home task. The team will solve this task together.
- On the 18th of October, two students of C2 batch will solve **subtask 03** from 1.30 pm to 4.30 pm
- On 18th October, the team together will solve the **subtask 04** from 4.30 pm to 5.45 pm
- Each subtask will be a continuation and an addon to the previous task

Sub-Task 01:
Implement the following tables used in Boyer-Moore and KMP algorithms:
- Bad Symbol Shift Table (D1)
- Good Suffix Shift Table (D2)
- Prefix Table (D3)

User input is a pattern string consisting of lower case alphabets from a to z.

Test your code for the following inputs:
1. abab
2. abbba
3. ccccc
4. xyzxyx

** Happy Coding **