

Data Structure and Algorithm - 2

Project 04

In this project, you must develop a string matching program in Java that takes a Text T and a Pattern P and checks if pattern P occurs in Text T by building a finite state automaton. The algorithm first produce a transition function from given P. It further detects all occurrences of pattern and print shift positions as suggested in Finite-Automaton-Matcher procedure, Book page 999.

Example Running

```
Enter Text:  one of the earliest systems of writing, was invented by the
sumerians
```

```
Enter Pattern:  the
```

```
The transition matrix as follows:
```

```
...matrix prints here...
```

```
Results:
```

```
2 pattern occurrences were detected,
shift positions: 7, 56
```

Due Date: 21 May, 22:00

Late submissions are not be evaluated