

Theory of Automata

Assignment-1

Deadline: 26th March 2024 before 13:00

Note:

1. Name your zip file as TOA_Assignment-1_YourName.
 2. Submit your assignment on intranet (fs).
 3. The folder name for submission is TOA-S24-A1
 4. Cheating will be penalized. Plagiarism in any form will not be tolerated.
 5. This is an individual assignment.
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Write a program in C++ or Java that first reads an input file containing information on DFA (state transition table). Your program should then minimize the given DFA using the partitioning method. The state transition table of minimal DFA should be then displayed in an output file. The format of input and output files are as follows:

Input file format: Here i in the second line indicates that A is the initial state whereas * in the last row indicates that E is an accepting state.

States/Input Symbols, 0, 1

i A, B, C

B, B, D

C, B, C

D, B, E

*E, B, C

Output file format:

States/Input Symbols, 0, 1

i AC, B, AC

B, B, D

D, B, E

*E, B, AC