**DFA Diagram for Implementing De-commenting Job by**

**C-Preprocessor**

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Legend:

S1 : State 1 : INSIDE\_A\_CODE (Starting point)

* The state represents an executable code.

S2: State 2 : TO\_START\_A\_COMMENT

* The state waits for \* to change to the next state (state 3)

S3 : State 3 : INISDE\_A\_COMMENT

* Everything inside is commented out (removed from the output) by the de-commenter program.

S4 : State 4 : TO\_END\_A\_COMMENT

* Waits for / to end the comment.

S5: State 5 : IN\_A\_STRING

* The state indicates that the code is a string literal.

S6: State 6 : ESCAPE\_STRING

* The state indicates that the code is escape string constant

S7: State 7 : IN\_A\_CHAR

* The state indicates that the code is a char literal.

S8 : State 8 : ESCAPE\_CHAR

* The state indicates that the code is escape character constant.