L-Università ta' Malta
Faculty of Information & Communication Technology

Assignment Part 2 Report

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Contents

1 Question 1

1.1 How the problem was tackled

1.1.1 Lexer

For this part, "char" was added to the keyword_type function within transitions.cpp. This was done so that "char" is identified as a keyword. Apart from that, the square brackets where added to the transition tablle and classifier table. The states that the square brackets led to where added to the token_type() function and to the list of accepting states. The updated part of the FSA is included as a figure.

As for the square brackets, these were simply added to the tables. The updated part of the FSA is included as a listing.

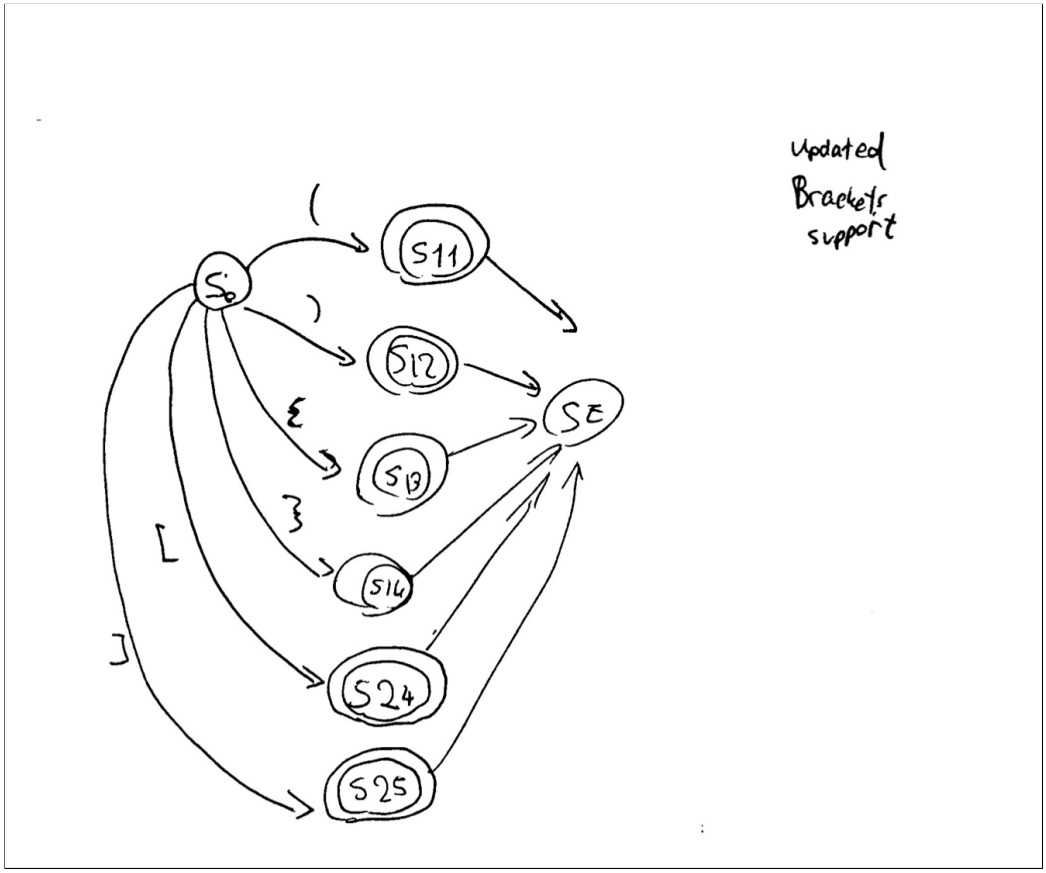

Figure 1: FSA (part concerned with updated brackets)

1.1.2 Parser

From the parser side, char was added to the TYPE enum. This would enable the semantic anayser to declare chars when a char value is given after it. The array parsing line is included as a listing.

Listing 1: Array parsing

```
case identifier:
    if (next\_token.type == scb) {
        //return parse_array();
    }
```

2 Question 3

For this task, the EBNF was changed into Antlr format. The script within the Antlr/ is run to generate the outputs