Análise Léxica

Especificação do diagrama de transição

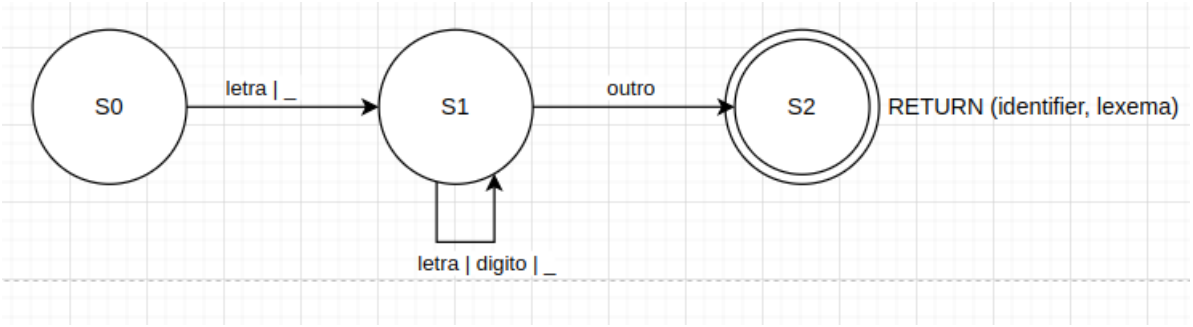


Figura 1: Diagrama de transição do token identificador

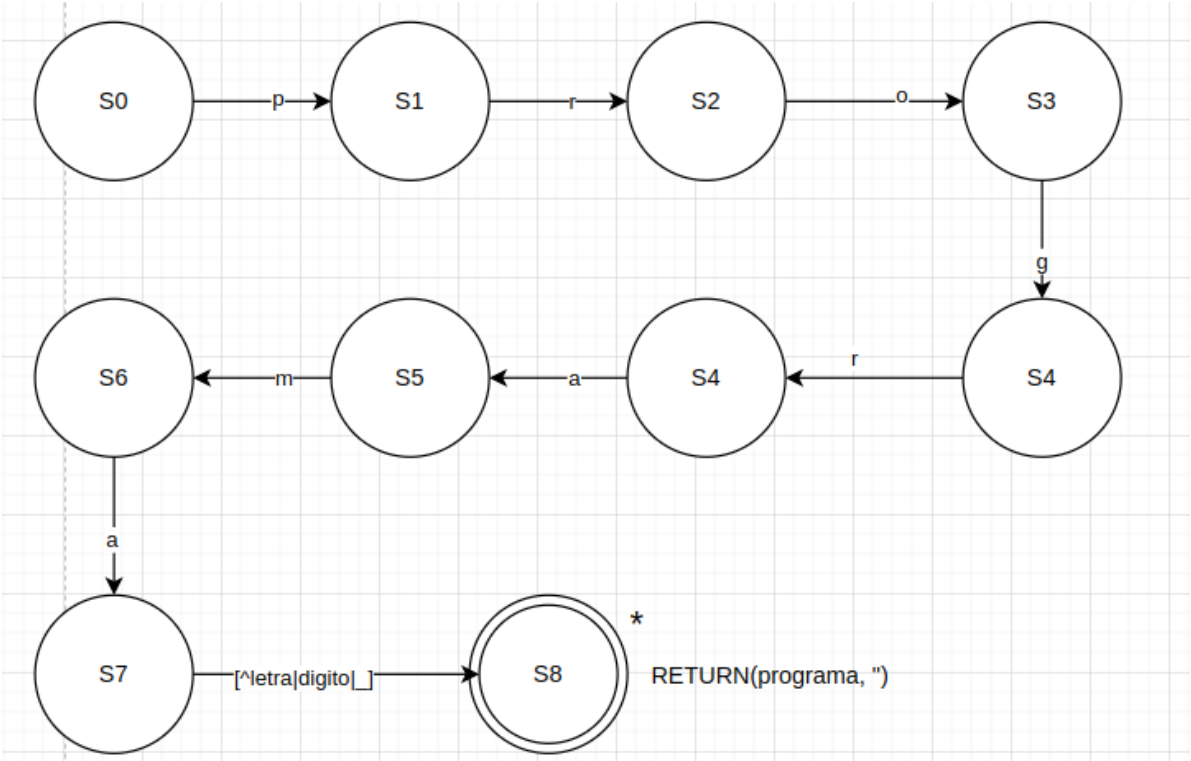


Figura 2: Diagrama de transição do token programa

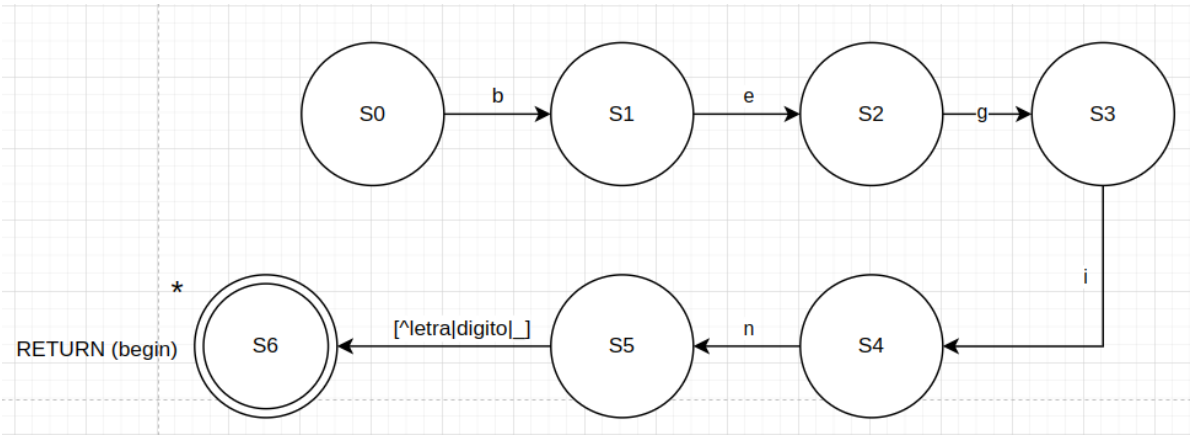


Figura 3: Diagrama de transição do token begin

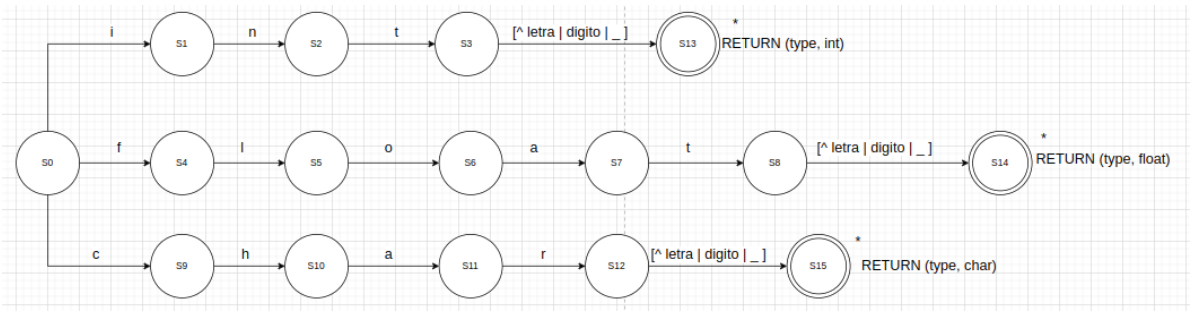


Figura 4: Diagrama de transição do token type

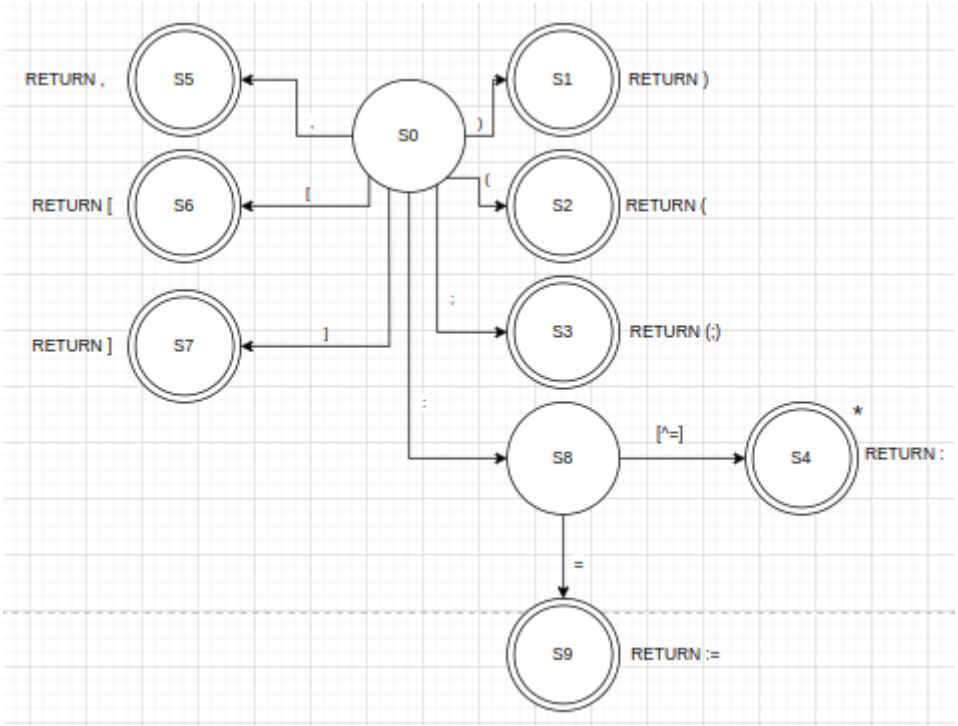


Figura 5: Diagrama de transição de tokens auxiliares

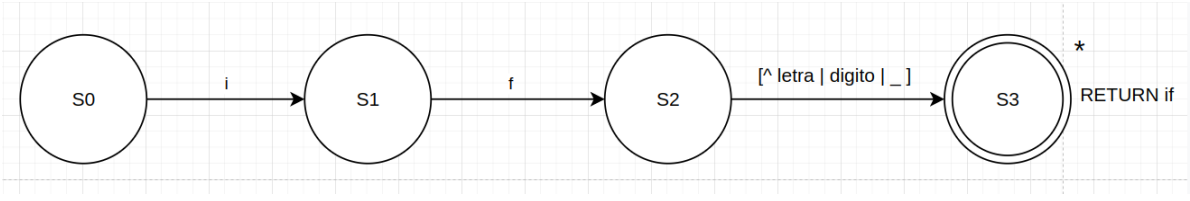


Figura 6: Diagrama de transição do token if

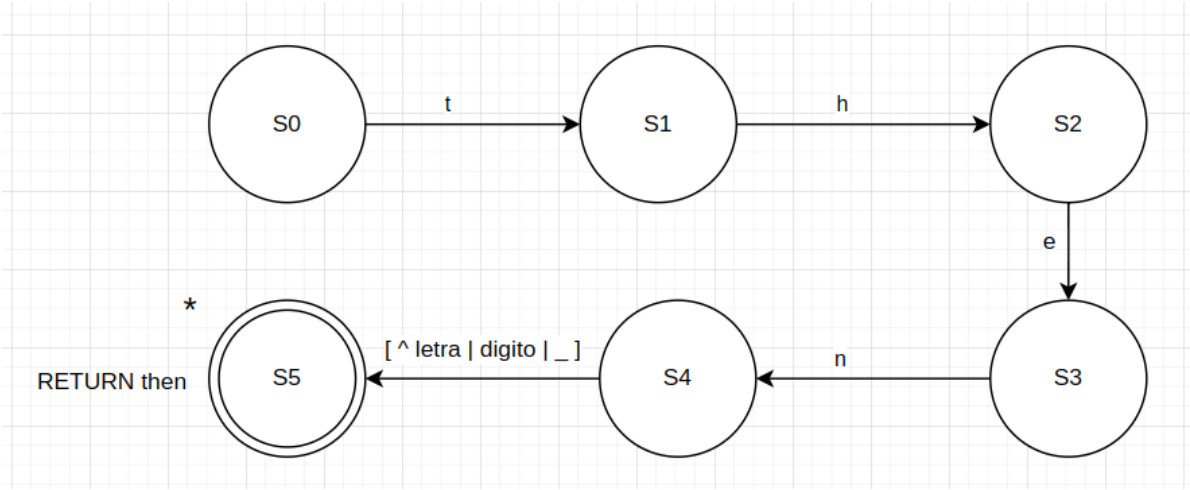


Figura 7: Diagrama de transição do token then

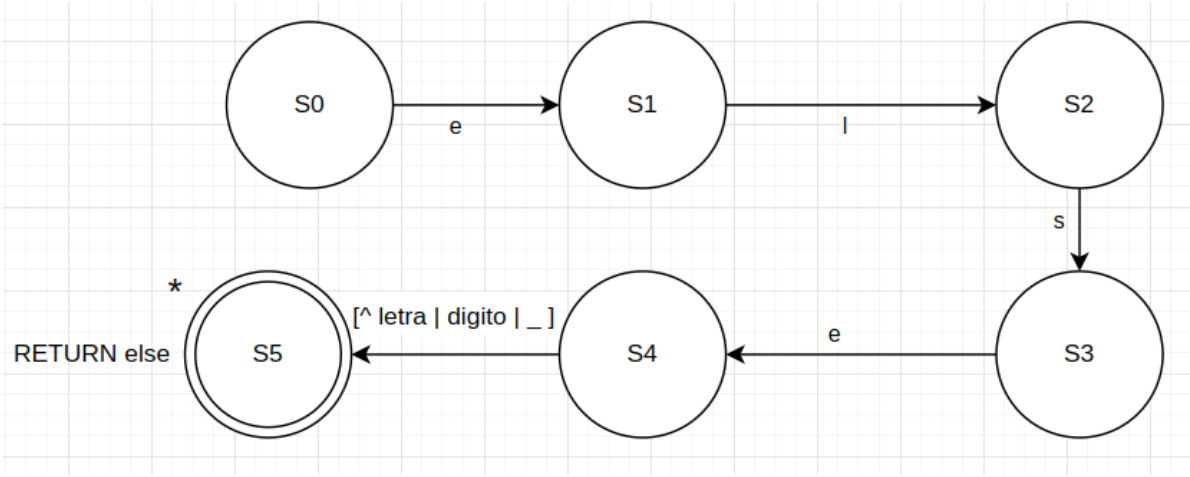


Figura 8: Diagrama de transição do token else

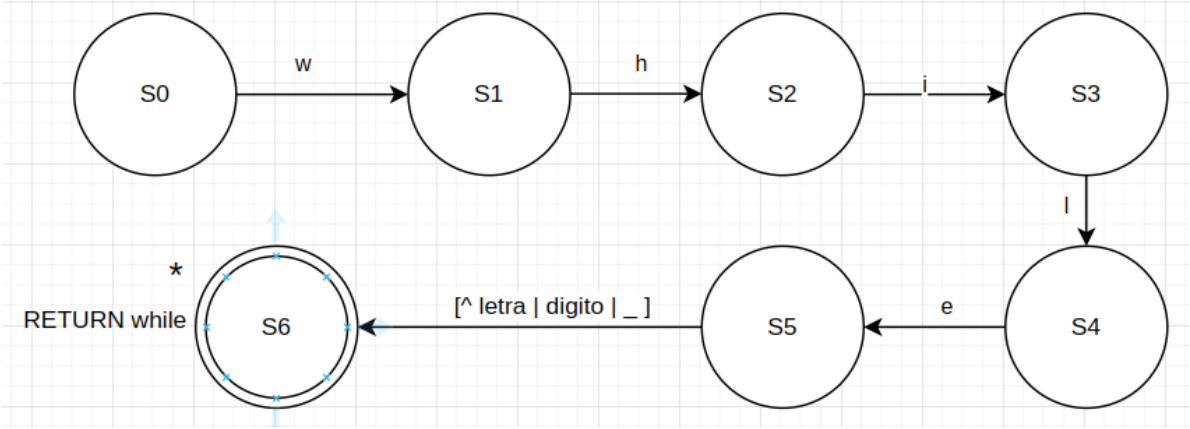


Figura 9: Diagrama de transição do token while

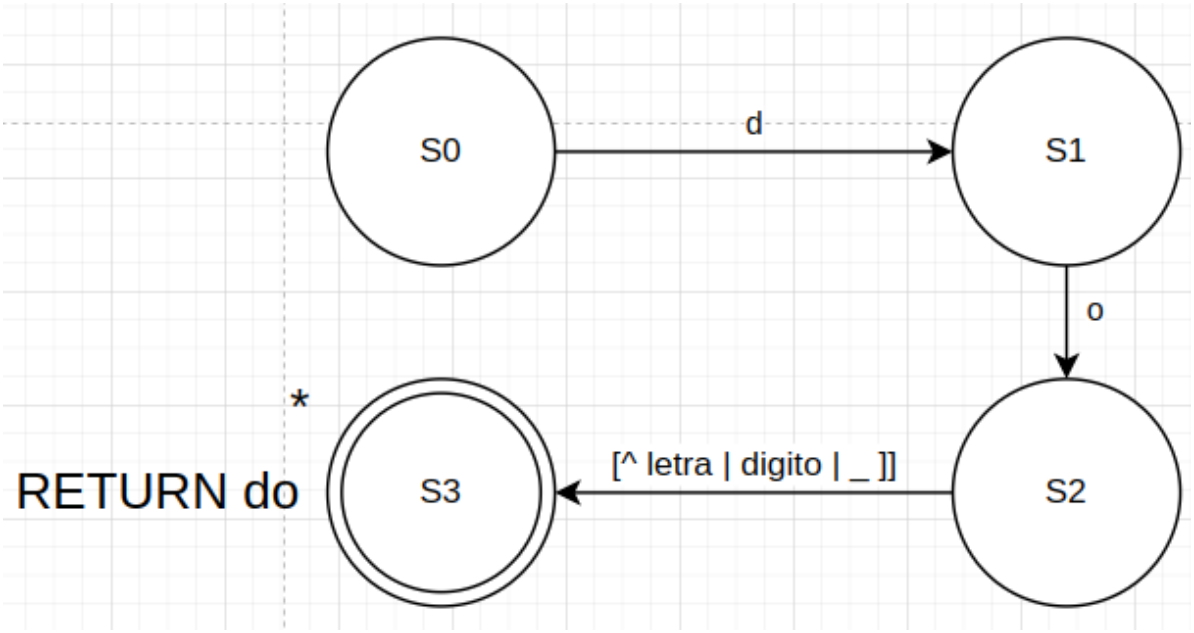


Figura 10: Diagrama de transição do token do

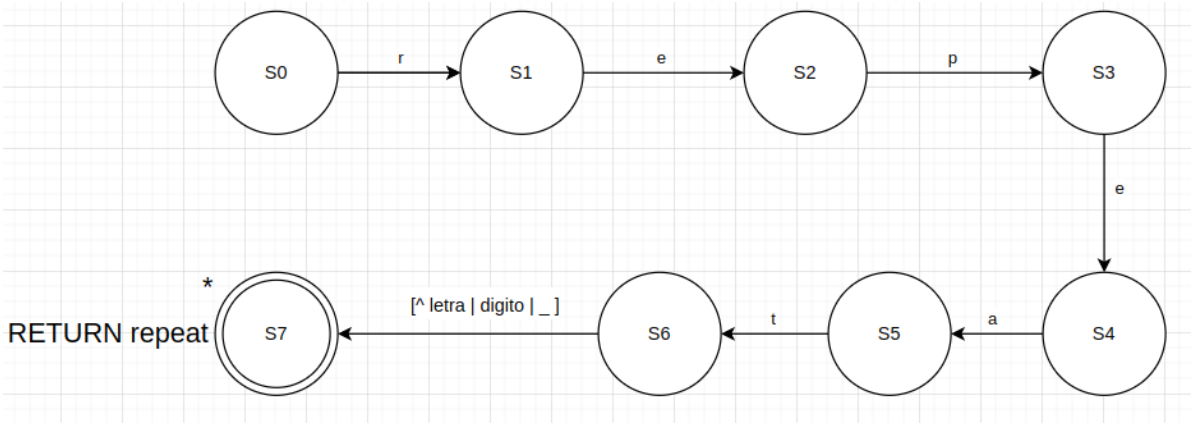


Figura 11: Diagrama de transição do token repeat

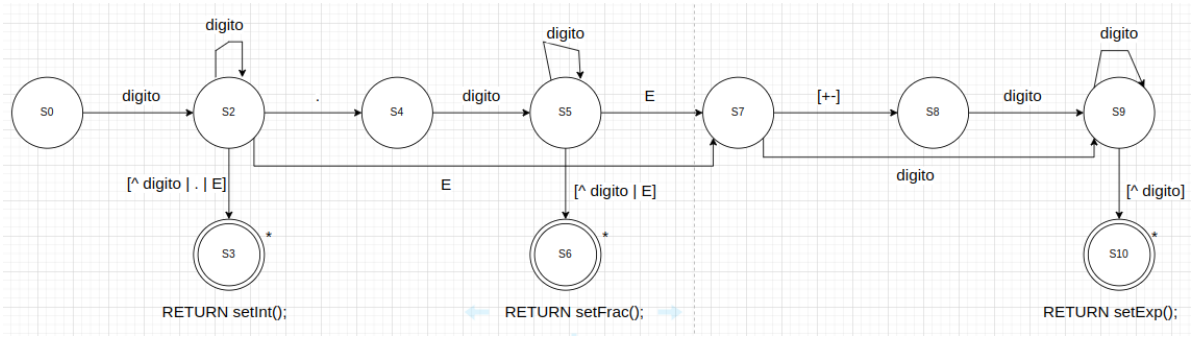


Figura 12: Diagrama de transição do token number

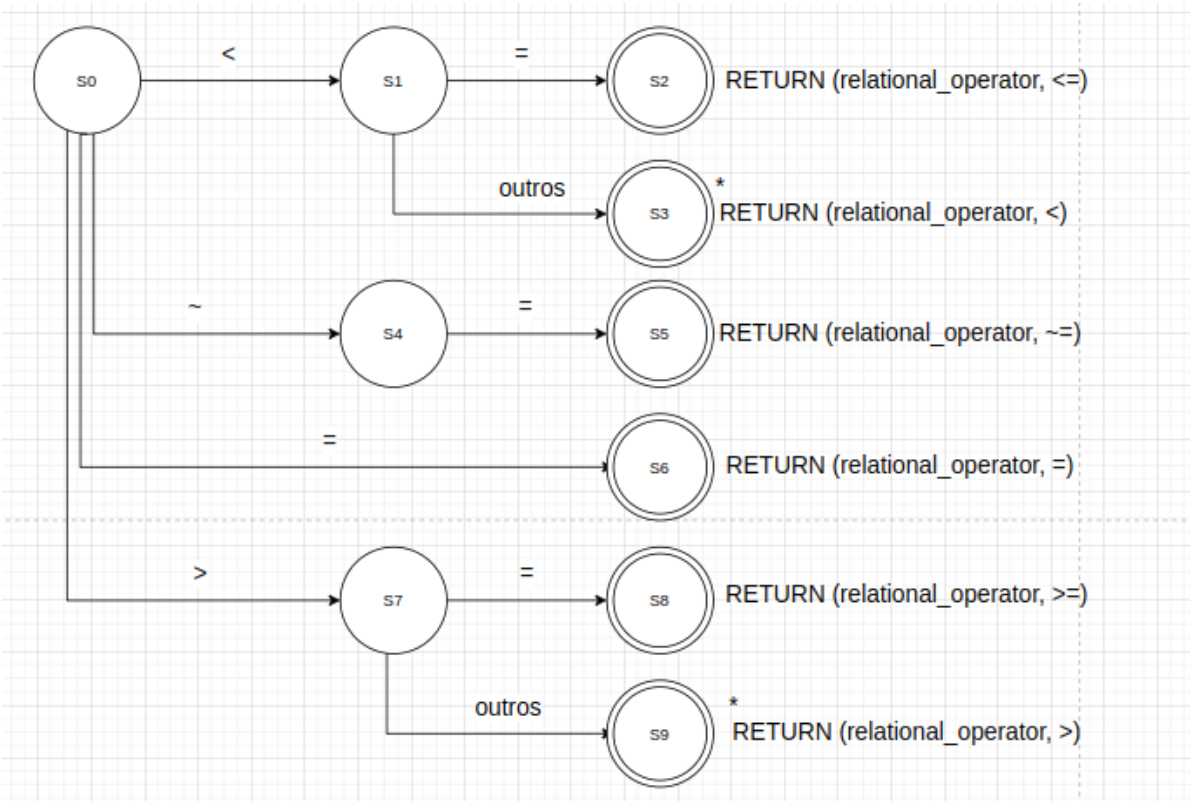


Figura 13: Diagrama de transição do token relational_operator

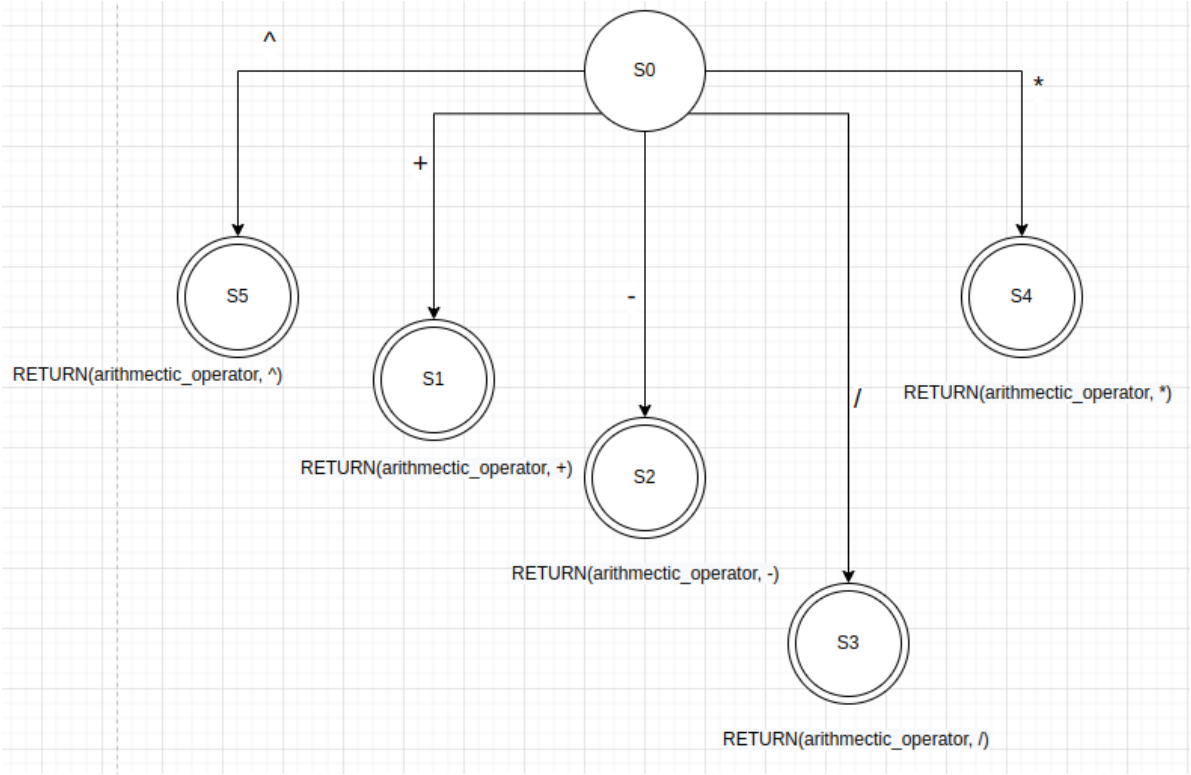


Figura 14: Diagrama de transição do token arithmetic_operator

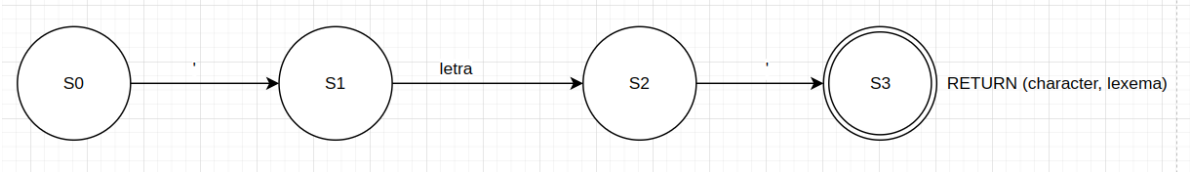


Figura 15: Diagrama de transição do token character

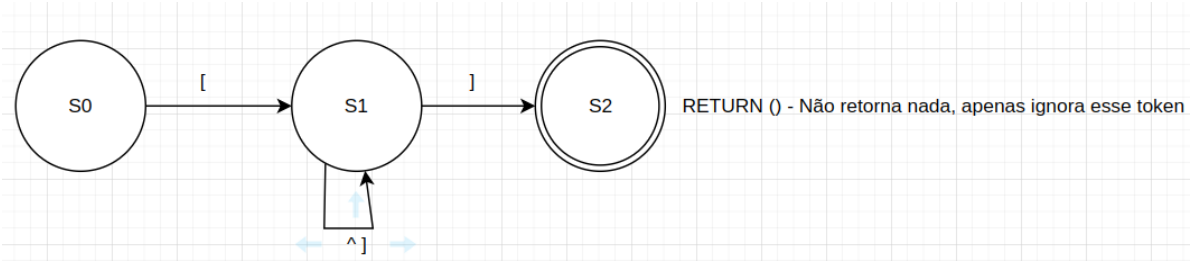


Figura 16: Diagrama de transição do token comments

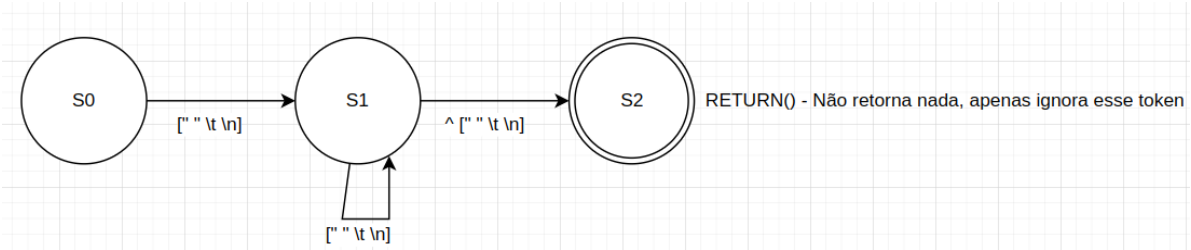


Figura 17: Diagrama de transição do token space

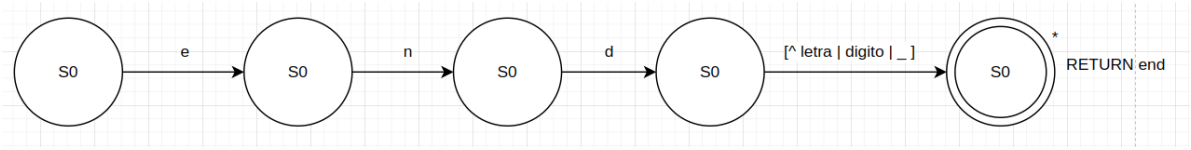


Figura 18: Diagrama de transição do token end

Unificando todos os diagramas de transição em um diagrama de transição não determinístico

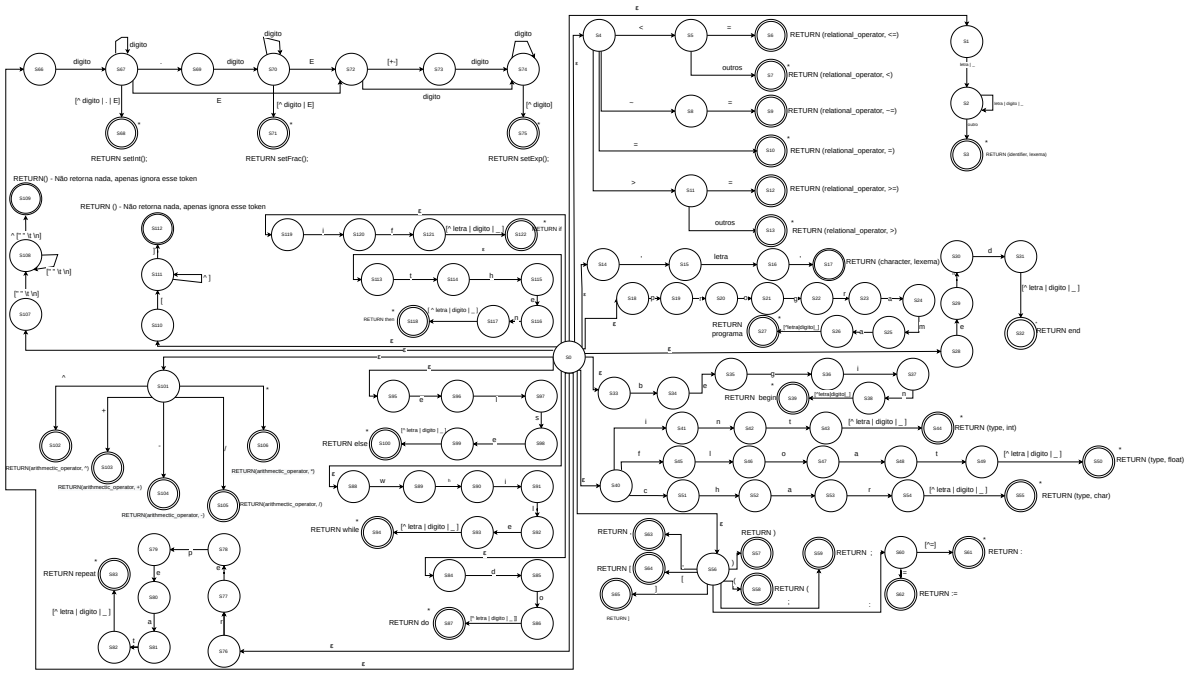


Figura 19: Unificação do diagrama de transição não determinístico

Convertendo o diagrama de transição não determinístico para determinístico

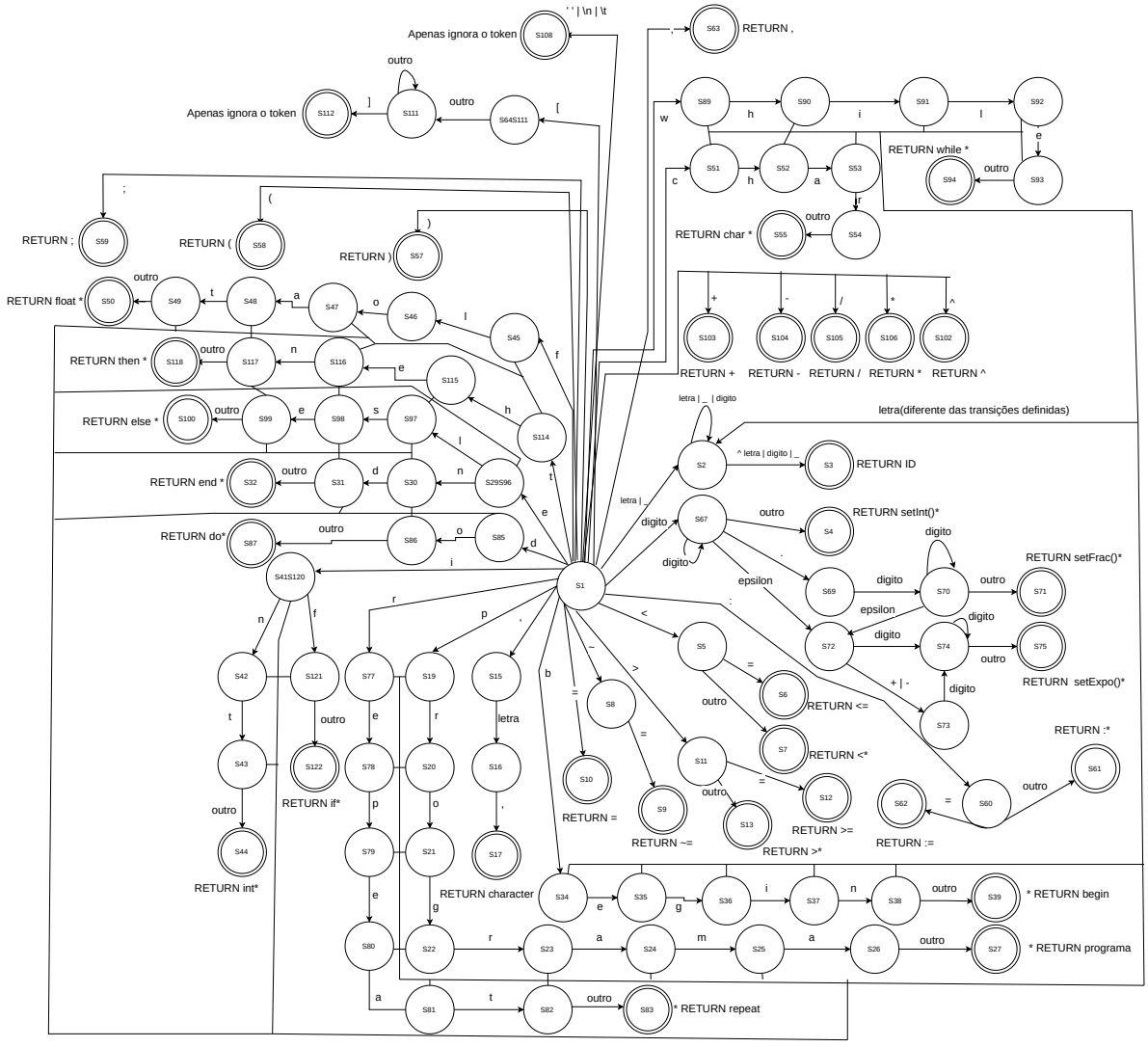


Figura 20: Diagrama de transição convertido em um AFD

Implementação do analisador léxico

Para testar esse analisador léxico usaremos o seguinte código de teste:

```
programa meuprograma
    [ Esse é um simples programa que verifica se x>y e conta]
    begin
    int:x;
    int:y;
    float cont;
    x:=50;
    y:=20;


    if(x>y) then
        cont := cont+50;
    else
        cont:= cont-1;

    end
```

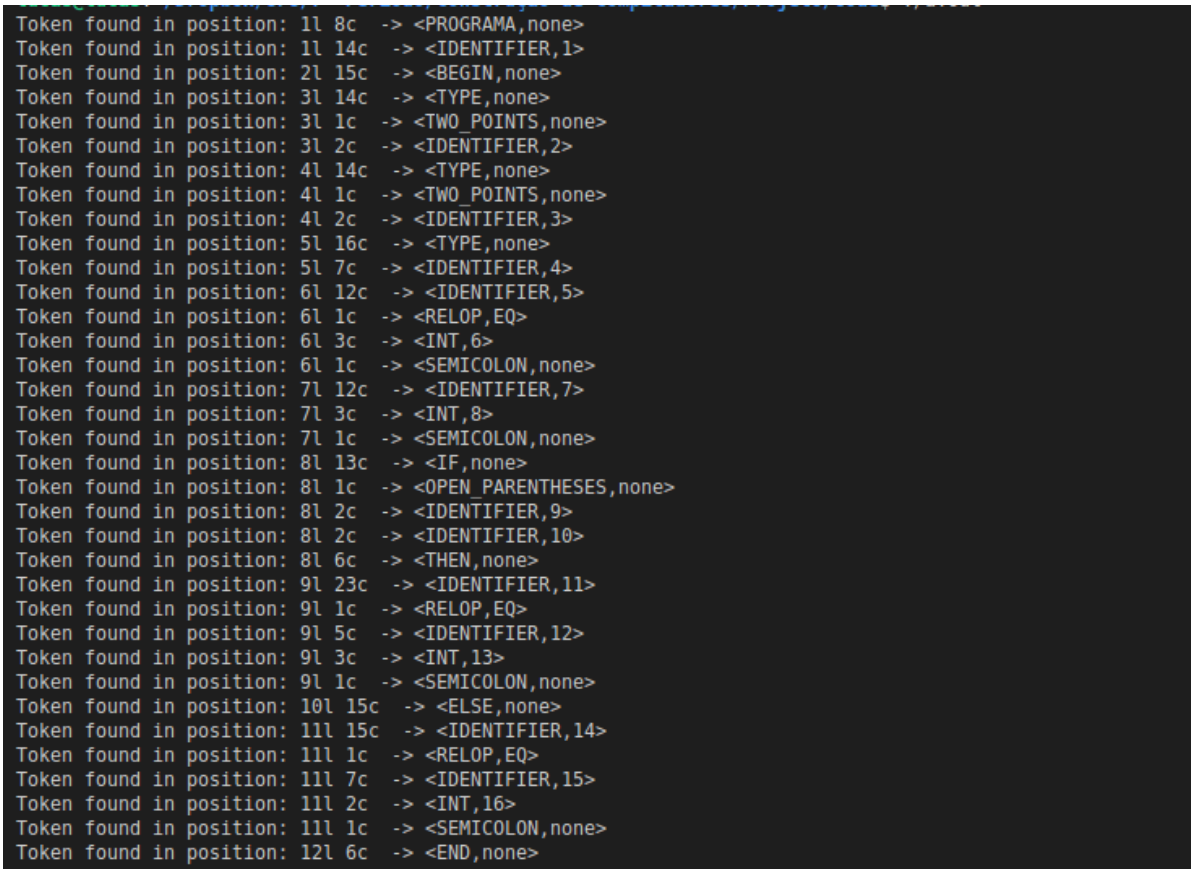
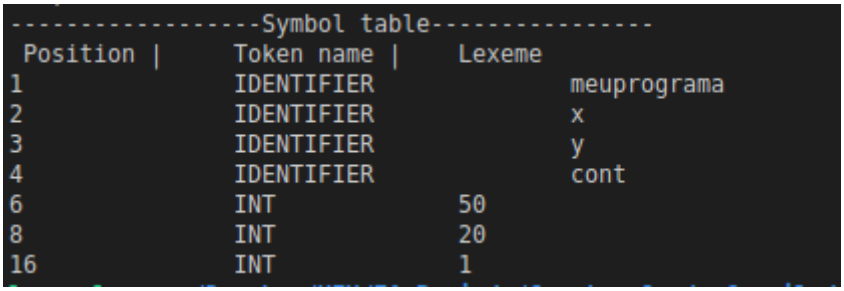


Figura 21: Tokens Recebidos pelo analisador sintático



```
------------------Symbol table----------------
 Position |     Token name |    Lexeme
1                IDENTIFIER              meuprograma
2                IDENTIFIER              x
3                IDENTIFIER              y
4                IDENTIFIER              cont
6                INT             50
8                INT             20
16               INT             1
```

Figura 22: Tabela de símbolos