

MUHAMMAD MUAAB SHOAIB

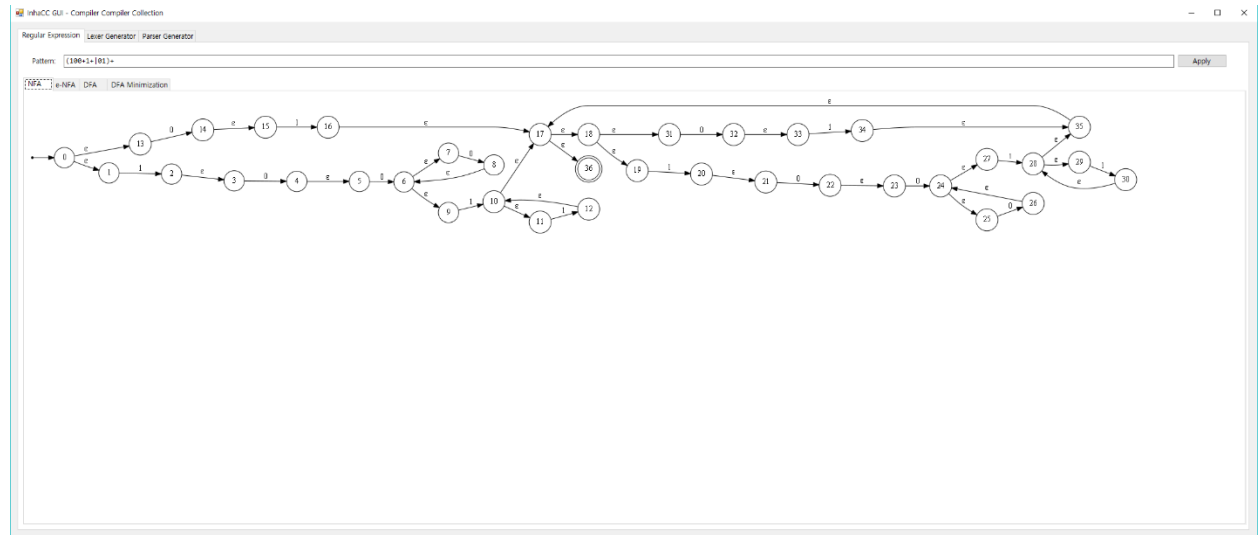
FA20-BCS-074

Q3: WRITE TWO INPUTS ALONG WITH OUTPUT.

1. Building NFA Input:

$(100+1+|01)^+$

OUTPUT:



2. Lexical Analyzer Generator Input:

```
[\\r\\n ] => ""  
; => end  
\\+ => plus  
- => minus  
\\* => multiple  
\\/ => divide  
\\( => op_open  
\\) => op_close  
[_$a-zA-Z][_a-zA-Z0-9]* => id  
[0-9]+(\\. [0-9]+)?[Ee][\\+\\-]?[0-9]+ => num  
[0-9]+(\\. [0-9]+)? => num
```

OUTPUT:

InhaCC GUI - Compiler Compiler Collection

Regular Expression

Lexer Generator

Parser Generator

Lexer Definition:

```
[\\r\\n ] => ""
; => end
\\+ => plus
- => minus
\\* => multiple
\\/ => divide
\\( => op_open
\\) => op_close
[_$a-zA-Z][_ $a-zA-Z0-9]* => id
[0-9]+(\\. [0-9]+)?[Ee](\\+|\\-)?[0-9]+ => num
[0-9]+(\\. [0-9]+)? => num
```

Generate!

```
2-(3+5);
2 + (6 * 3);
(3 + 2)*2 + 5;
2.0E-2+0.5;
5+10
```

Status:

```
end, ;
num, 2
plus, +
op_open, (
num, 6
multiple, *
num, 3
op_close, )
end, ;
op_open, (
num, 3
plus, +
num, 2
op_close, )
multiple, *
num, 2
plus, +
num, 5
end, ;
num, 2.0E-2
plus, +
num, 0.5
end, ;
num, 5
plus, +
num, 10
,
----- End Lexing -----
```

Test!