

## Lab 05 - DFA to RE

### Instructions:

- In the previous lab, we converted regular expressions into DFAs. In this lab, we will reverse the process by converting DFAs back into regular expressions.
- Your objective is to generate a regular expression that represents the regular language recognized by each DFA. For each problem, provide the formal GNFA definitions used to derive the regular expression; however, you are only required to include the sets  $Q$  and the transition functions  $\delta$  in these definitions. Use  $\Sigma$ ,  $\varepsilon$ , and  $\cup$ , respectively.
- Your submissions must be submitted to the GitHub repository in the Lab05 directory.
- Cheating of any kind is prohibited and will not be tolerated.
- Violating or failing to follow any of the rules above will result in an automatic zero (0) for the lab.

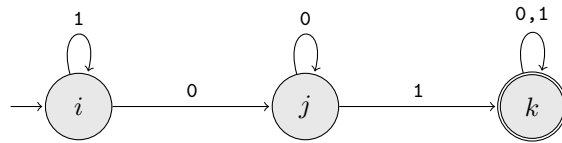
### Grading

Task	Maximum Points	Points Earned
1	1.50	
2	1.50	
3	2.00	
<b>Total</b>	5.00	

Note: solutions will be provided for tasks colored blue only.

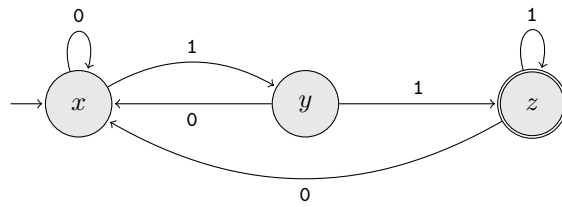
### Task 1

- Convert DFA L:



### Task 2

- Convert DFA M:



### Task 3

- Convert DFA N:

