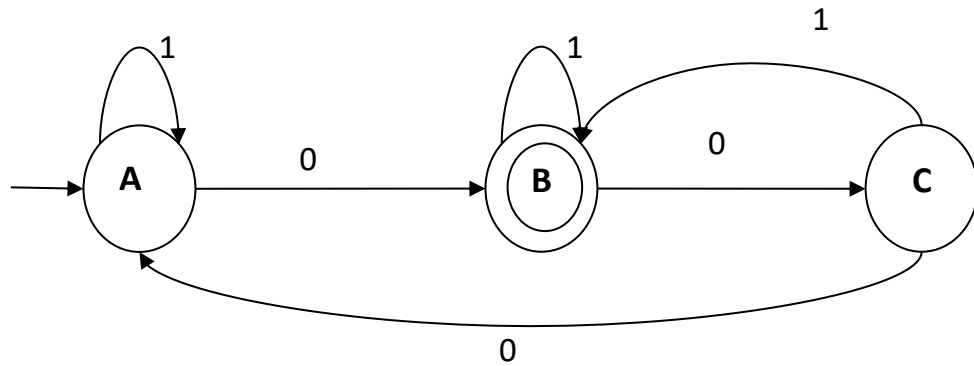


Assignment#4 Key

Assignment # 4.1 (Reg. Eq.)

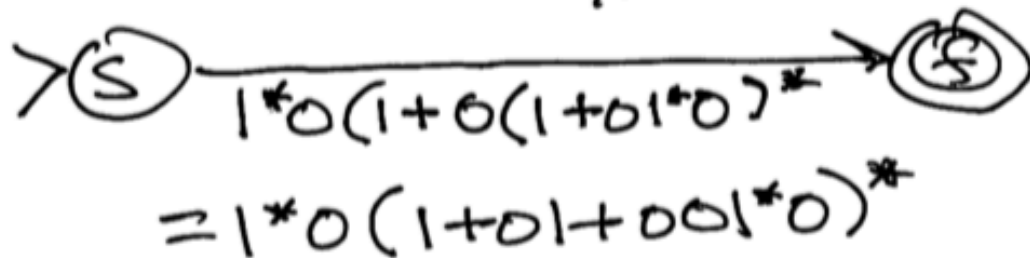
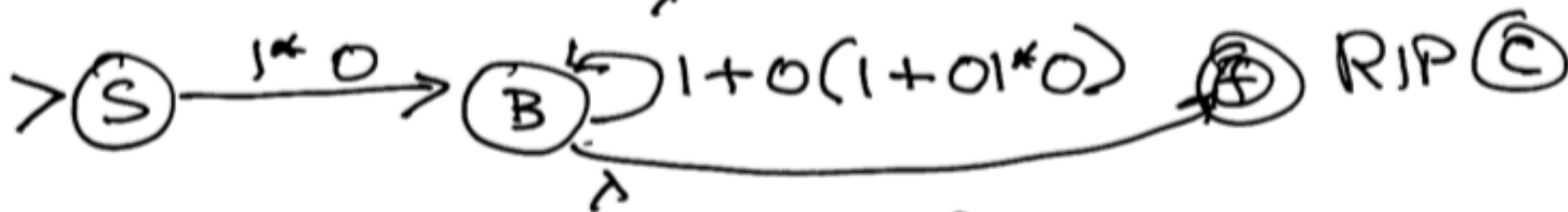
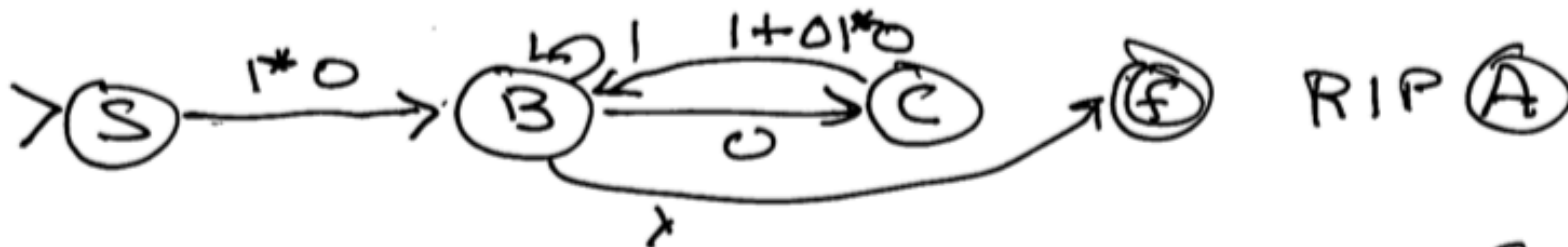


$$C = B0$$

$$A = \lambda + C0 + A1 = \lambda + B00 + A1 = (\lambda + B00)1^*$$

$$B = A0 + C1 + B1 = (\lambda + B00)1^* + B01 + B1 = 1^*0 + B(001^*0 + 1 + 01)$$
$$= 1^*0(001^*0 + 1 + 01)^*$$

Assignment # 4.1 (State Ripping)



Assignment # 4.1 (R_{ij}^k)

$$\begin{array}{l}
 R_{11}^0 = \lambda \\
 R_{21}^0 = \phi \\
 R_{31}^0 = 0 \\
 \hline
 R_{11}^1 = 1^* \\
 R_{21}^1 = \phi \\
 R_{31}^1 = 01^* \\
 \hline
 R_{11}^2 = 1^* \\
 R_{21}^2 = \phi \\
 R_{31}^2 = 01^* \\
 \hline
 \end{array}$$

$$\begin{array}{l}
 R_{12}^0 = 0 \\
 R_{22}^0 = \lambda + 1 \\
 R_{32}^0 = 1 \\
 \hline
 R_{12}^1 = 1^*0 \\
 R_{22}^1 = \lambda + 1 \\
 R_{32}^1 = 1 + 01^*0 \\
 \hline
 R_{12}^2 = 1^*01^* \\
 R_{22}^2 = 1^* \\
 R_{32}^2 = 1^* + 01^*01^* \\
 \hline
 \end{array}$$

$$\begin{array}{l}
 R_{13}^0 = \phi \\
 R_{23}^0 = 0 \\
 R_{33}^0 = \lambda \\
 \hline
 R_{13}^1 = \phi \\
 R_{23}^1 = 0 \\
 R_{33}^1 = \lambda \\
 \hline
 R_{13}^2 = 1^*01^*0 \\
 R_{23}^2 = 0 + 1^*0 = 1^*0 \\
 R_{33}^2 = \lambda + (1 + 01^*0)1^*0 \\
 \hline
 \end{array}$$

$$\hline
 R_{12}^3 = 1^*01^* + (1^*01^*0)((1 + 01^*0)1^*0)^*(1^* + 01^*01^*)$$

Assignment # 4.2 Key

	a	b	c
>1	2	3	6
2	5	4	4
<u>3</u>	1	4	5
<u>4</u>	6	3	5
5	5	2	4
6	2	4	1

2	2,5 3,4 4,6X				
<u>3</u>	X	X			
<u>4</u>	X	X	1,6		
5	2,5 2,3X 4,6X	2,4X	X	X	
6	3,4	2,5X 1,4X	X	X	2,5X 2,4X 1,4X
	>1	2	<u>3</u>	<u>4</u>	5

New States
 <1,6>, <2>,
 <3,4>, <5>

