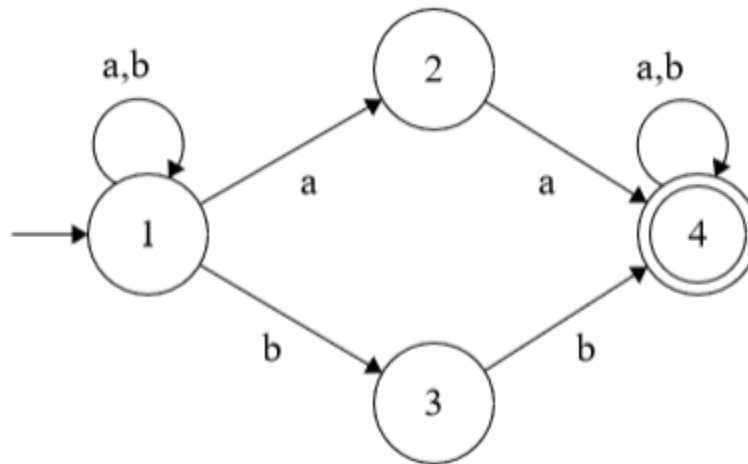


3.



- In first make table with Structure head of columns is the input of this automata, epsilon and rows the number of states and the intersection between them this is show us if state received this input where will go and write this state in intersection and epsilon that show us if state received epsilon where it will go, like this.

| | a | b | E |
|---|-----|-----|---|
| 1 | 1,2 | 1,3 | 1 |
| 2 | 4 | - | 2 |
| 3 | - | 4 | 3 |
| 4 | 4 | 4 | 4 |

- And make then, a new table that will start with only start state and other states

will come from the inputs that mean other states is the intersect of the state and input and will stop if all intersects appears on states like this:

| | a | b |
|-------|-------|-------|
| 1 | 1,2 | 1,3 |
| 1,2 | 1,2,4 | 1,3 |
| 1,3 | 1,2 | 1,3,4 |
| 1,2,4 | 1,2,4 | 1,3,4 |
| 1,3,4 | 1,2,4 | 1,3,4 |

- After, doing that we will take every state and make it a state in circle and look at input and intersect between input and state and put the input by this shape for state to state (that is the intersect) and every state that has same number of end state in our example it will be also end state and in finally that will be their shape.

