1. FSA is a machine which read input source charcter by character and process it, at the end the input is either accepted or rejected.
In the previous lab, you have implemented scanner, and saved FSA tarnsition table to a data structure (LabTaks2-Q4).
Now you are required to extend the function of Q4 or previous lab, and implement FSA. For your refrence , question 4 is given below.

4. write a program that reads data from file, and save it to list, with following sample data.

0 a 1
0 a 2
1 a 4
2 b 3
3 x 3
4 f 6

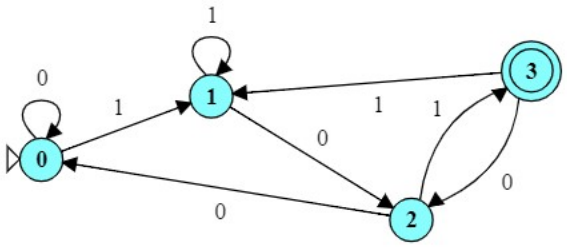
following should be the output
list = ["0 a 1", "0 a 2", "1 a 4", "2 b 3", "3 x 3", "4 f 6"]

Do following tasks

1. **Input a character from user**
2. **Input an integer from user**
3. **create an empty set**
4. **Iterate through list, split each element with "Tab", convert first value of splitted list to integer. If input character (in task 1) and second value of splitted list are equal and integer is equal to first value, then append last element of splitted list to set (defined in step 3).**

At the end print the value of set.
For example suppose we enter "a" in step 1 , and "0" in step 2, ultimate value of set will be {1,2}

Here is the FSA machine to be implemented (all string contain 101). with transition table



0 0 0

0	1	1
1	0	2
1	1	1
2	1	3
2	0	0
3	1	1
3	0	2

Your program should save this file data in to data structure, and then process input character by character, for example input is 1101, you program should output like following.

Current State = 0
Input processsing = 1
Next State = 1

Current state = 1
InputProcessing = 1
Next state = 1

Current state = 1
Input processing = 0
Next state = 2

Current state = 2
Input processing = 1
Next state =3

String Accepted