

Output screen shot of test case 1:

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PS C:\Users\YASH\Desktop\DLP cse313> & 'C:\Program Files\Java\jdk-21\bin\java.exe' '-XX:+ShowCodeDetailsInException
cp' 'C:\Users\YASH\AppData\Roaming\Code\User\workspaceStorage\cd61bebce88762841ddba0774ad88195\redhat.java\jdt_ws\D
43ede\bin' 'Main'
Enter number of input symbols:
2
Enter symbol 1:
a
Enter symbol 2:
b
Enter number of states:
4
Enter initial state (1 to 4):
1
Enter number of final states:
1
Enter final state 1 (1 to 4):
2
Define the transition table:
From state 1 with input 'a', go to state (1 to 4):
2
From state 1 with input 'b', go to state (1 to 4):
3
From state 2 with input 'a', go to state (1 to 4):
1
From state 2 with input 'b', go to state (1 to 4):
4
From state 3 with input 'a', go to state (1 to 4):
4
From state 3 with input 'b', go to state (1 to 4):
1
From state 4 with input 'a', go to state (1 to 4):
3
From state 4 with input 'b', go to state (1 to 4):
2
Enter the input string:
abbabab
Valid String
PS C:\Users\YASH\Desktop\DLP cse313>

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Test case 2:

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PS C:\Users\YASH\Desktop\DLP_cse313> & 'C:\Program Files\Java\jdk-21\bin\java.exe' '-XX:+ShowCodeDetailsInException'
cp' 'C:\Users\YASH\AppData\Roaming\Code\User\workspaceStorage\cd61bebce88762841ddba0774ad88195\redhat.java\jdt_ws\
43ede\bin' 'Main'
Enter number of input symbols:
2
Enter symbol 1:
0
Enter symbol 2:
1
Enter number of states:
4
Enter initial state (1 to 4):
1
Enter number of final states:
1
Enter final state 1 (1 to 4):
3
Define the transition table:
From state 1 with input '0', go to state (1 to 4):
1
From state 1 with input '1', go to state (1 to 4):
2
From state 2 with input '0', go to state (1 to 4):
4
From state 2 with input '1', go to state (1 to 4):
3
From state 3 with input '0', go to state (1 to 4):
1
From state 3 with input '1', go to state (1 to 4):
3
From state 4 with input '0', go to state (1 to 4):
4

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From state 2 with input '0', go to state (1 to 4):
4
From state 2 with input '1', go to state (1 to 4):
3
From state 3 with input '0', go to state (1 to 4):
1
From state 3 with input '1', go to state (1 to 4):
3
From state 4 with input '0', go to state (1 to 4):
4
From state 4 with input '1', go to state (1 to 4):
4
Enter the input string:
0110111
Valid String
PS C:\Users\YASH\Desktop\DLP_cse313>

```

Test case 3 :

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PS C:\Users\YASH\Desktop\DLP cse313> & 'C:\Program Files\Java\jdk-21\bin\java.exe' '-XX:+ShowCodeDetailsInExceptionMessages' '-cp' 'C:\Users\YASH\AppData\Roaming\Code\User\workspaceStorage\cd61bebce88762841ddba0774ad88195\redhatDLP cse313_7b443ede\bin' 'Main'
Enter number of input symbols:
3
Enter symbol 1:
a
Enter symbol 2:
b
Enter symbol 3:
c
Enter number of states:
7
Enter initial state (1 to 7):
1
Enter number of final states:
3
Enter final state 1 (1 to 7):
5
Enter final state 2 (1 to 7):
6
Enter final state 3 (1 to 7):
7
Define the transition table:
From state 1 with input 'a', go to state (1 to 7):
2

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From state 1 with input 'a', go to state (1 to 7):
2
From state 1 with input 'b', go to state (1 to 7):
3
From state 1 with input 'c', go to state (1 to 7):
4
From state 2 with input 'a', go to state (1 to 7):
5
From state 2 with input 'b', go to state (1 to 7):
2
From state 2 with input 'c', go to state (1 to 7):
2
From state 3 with input 'a', go to state (1 to 7):
3
From state 3 with input 'b', go to state (1 to 7):
6
From state 3 with input 'c', go to state (1 to 7):
3
From state 4 with input 'a', go to state (1 to 7):
4
From state 4 with input 'b', go to state (1 to 7):
4
From state 4 with input 'c', go to state (1 to 7):
7
From state 5 with input 'a', go to state (1 to 7):
5

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7
From state 5 with input 'a', go to state (1 to 7):
5
From state 5 with input 'b', go to state (1 to 7):
2
From state 5 with input 'c', go to state (1 to 7):
2
From state 6 with input 'a', go to state (1 to 7):
3
From state 6 with input 'b', go to state (1 to 7):
6
From state 6 with input 'c', go to state (1 to 7):
3
From state 7 with input 'a', go to state (1 to 7):
4
From state 7 with input 'b', go to state (1 to 7):
4
From state 7 with input 'c', go to state (1 to 7):
7
Enter the input string:
bacabcbabb
Valid String
PS C:\Users\YASH\Desktop\DLP_cse313>

```

Test case 4:

(here I have defined matrix itself in source file Main2.java)

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PS C:\Users\YASH\Desktop\DLP_cse313> & 'C:\Program Files\Java\jdk-21\bin\java.exe' '-XX:+ShowCodeDetailsInExceptionMessages' '-cp' 'C:\Users\YASH\
ing\Code\User\workspaceStorage\cd61bebce88762841ddba8774ad88195\redhat.java\jdt_ws\DLP_cse313_7b443ede\bin' 'Main2'
Enter the input string:
afvgb1
Valid String
PS C:\Users\YASH\Desktop\DLP_cse313>

```