**Compiler Design week 1 assignment**

**Question:**

Implementation of Language recognizer for set of all strings ending with two symbols of same type.

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**Accepted form:**

The acceptable strings in the language are 00,11,000,011,100,111 and so on……

**Q**2

Q2

Q2

Q2

Q4

Q4

Q3

Q3

Q0

Q0

Q1

Q1

**0 1**

**1 0 0**

Q4

Q4

**1**

**1**

DFA

• M= (Q, ∑, δ, Q0, F) where

• Q=Set of all states = {Q0, Q1, Q2, Q3, Q4}

• ∑=Input Alphabet = {0,1}

• Start state is Q0 and

• F=Set of all final States= {Q2 and Q4} And the transitions are defined in the transition diagram

**Input:**

input //input string

**Output:**

Algorithm prints a message

“String accepted”: If the input is acceptable by the language,

“String not accepted” otherwise,

“Invalid token”: If the input string contains symbols other than input alphabet

**Test Cases:**

**Input**

**Expected output**

aa

String accepted

abb

String accepted

aba

String not accepted

bba0

Invalid token

abababaa

String accepted

aaaaa

String accepted

**Outputs:**

Code will be submitted in txt format. Thank You