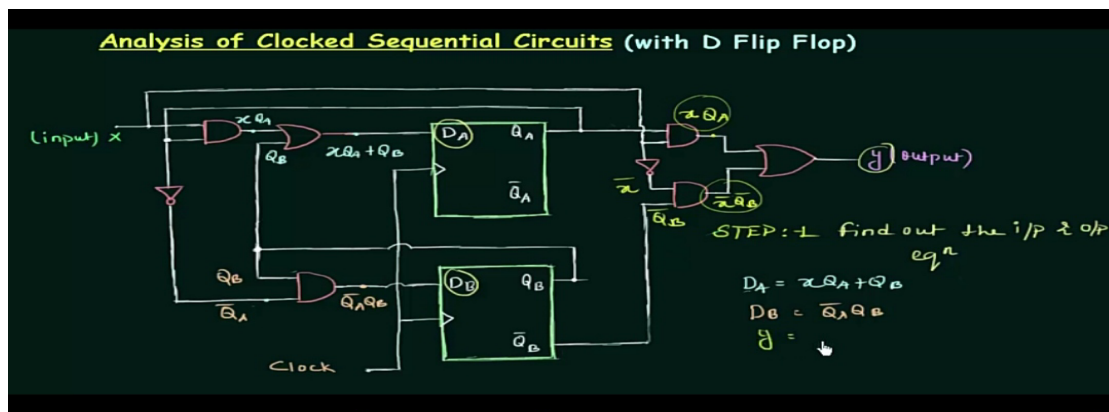


Date:	29-05-2020	Name:	Rajeshwari Gadagi
Course:	Logic design	USN:	4AL17EC076
Topic:	Analysis of clocked sequential circuit	Semester and section:	6 th sem and B sec



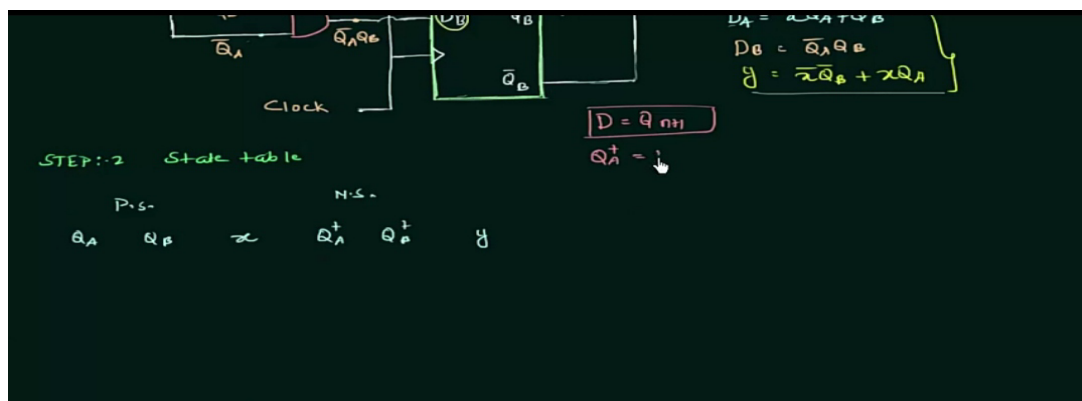
Analysis of Clocked Sequential Circuits (with D Flip Flop)

Q_A	Q_B	x	Q_A^+	Q_B^+	y
0	0	0	0	0	1
0	0	1	0	0	0
0	1	0	1	1	0
0	1	1	1	1	0
1	0	0	0	0	1
1	0	1	1	0	0
1	1	0	1	0	0
1	1	1	1	0	1

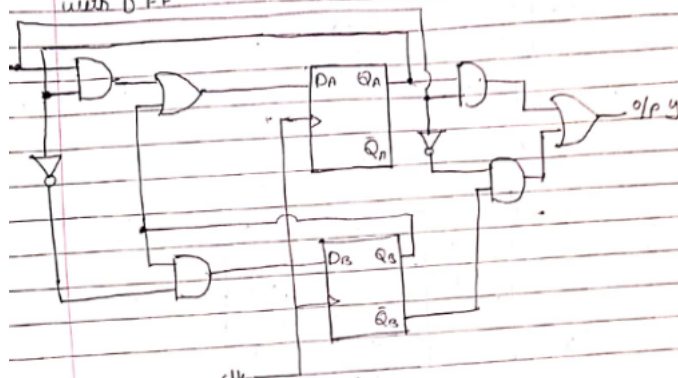
STEP:-3 State diagram

$S_0 = \overline{Q_A}Q_B = 00$
 $S_1 = 01$
 $S_2 = 10$
 $S_3 = 11$

$y = 1 \cdot 1 + 0 \cdot 0 = 1$
 $y = 0 \cdot 1 + 1 \cdot 0 = 0$



Analysis of Clocked Sequential Circuits with D FF



$$D_A = x \bar{Q}_A + Q_B$$

$$D_B = \bar{Q}_A Q_A$$

$$y = \bar{x} \bar{Q}_B + x Q_A$$

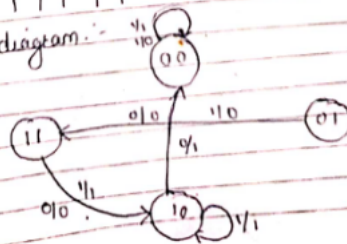
$$Q_A^+ = D_A$$

$$Q_B^+ = D_B$$

State table:

P.S		x	N.S		y
Q_A	Q_B		Q_A^+	Q_B^+	
0	0	0	0	0	1
0	0	1	0	0	0
0	1	0	1	1	0
0	1	1	1	1	0
1	0	0	0	0	1
1	0	1	1	0	1
1	1	0	1	0	0
1	1	1	1	0	1

State diagram:-



Date:	29-05-2020	Name:	Rajeshwari Gadagi
Course:	Python programming	USN:	4AL17EC076
Topic:	Object oriented programming	Semester and section:	6 th sem and B sec

Object Oriented Programming:

- Oop is just the way to organise the code

Backend

```
import sqlite3
class Database:
    def __init__(self):
        conn = sqlite3.connect('books.db')
        cur = conn.cursor()
        cur.execute('CREATE TABLE')
        conn.commit()
        conn.close()
```

Frontend:

```
from tkinter import *
from backend import Database
database = Database()
def get_selected_row(event):
    global selected_tuple
    index = list1.curselection()[0]
    selected_tuple = list1.get(index)
    e1.delete(0, END)
    e1.insert(END, selected_tuple[1])
```

* Inheritance: Is the process of creating a new class from a base class

Example:

```
class Account:
    def __init__(self, filepath):
        self.filepath = filepath
        with open(filepath, 'x') as file:
```

```
self.balance = int(file.read())
```

```
def withdraw(self, amount):
    self.balance = self.balance - amount
```

```
def deposit(self, amount):
    self.balance = self.balance + amount
```

```
def commit(self):
    with open(self.filepath, 'w') as file:
        file.write(str(self.balance))
```

```
class checking(Account) → derived class
    def __init__(self, filepath, fee):
        Account.__init__(self, filepath)
        self.fee = fee
```

```
def transfer(self, amount):
    self.balance = self.balance - amount - self.fee
```

```
checking = checking("account\\balance.txt", 1)
checking.transfer(100)
print(checking.balance)
checking.commit()
```