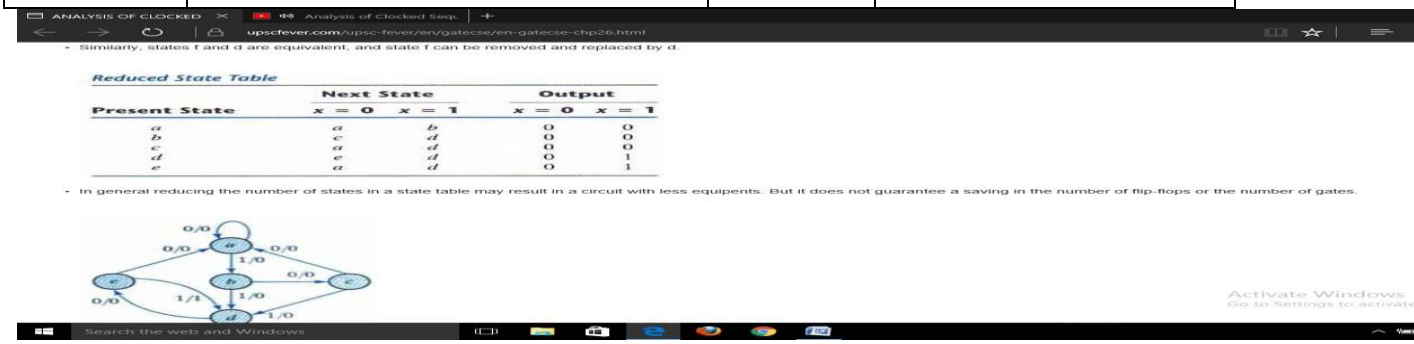
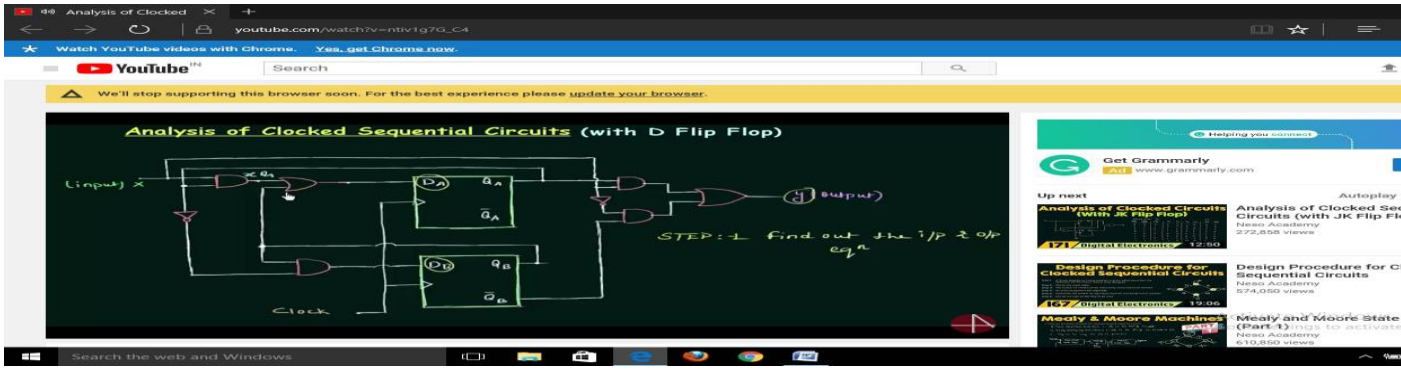
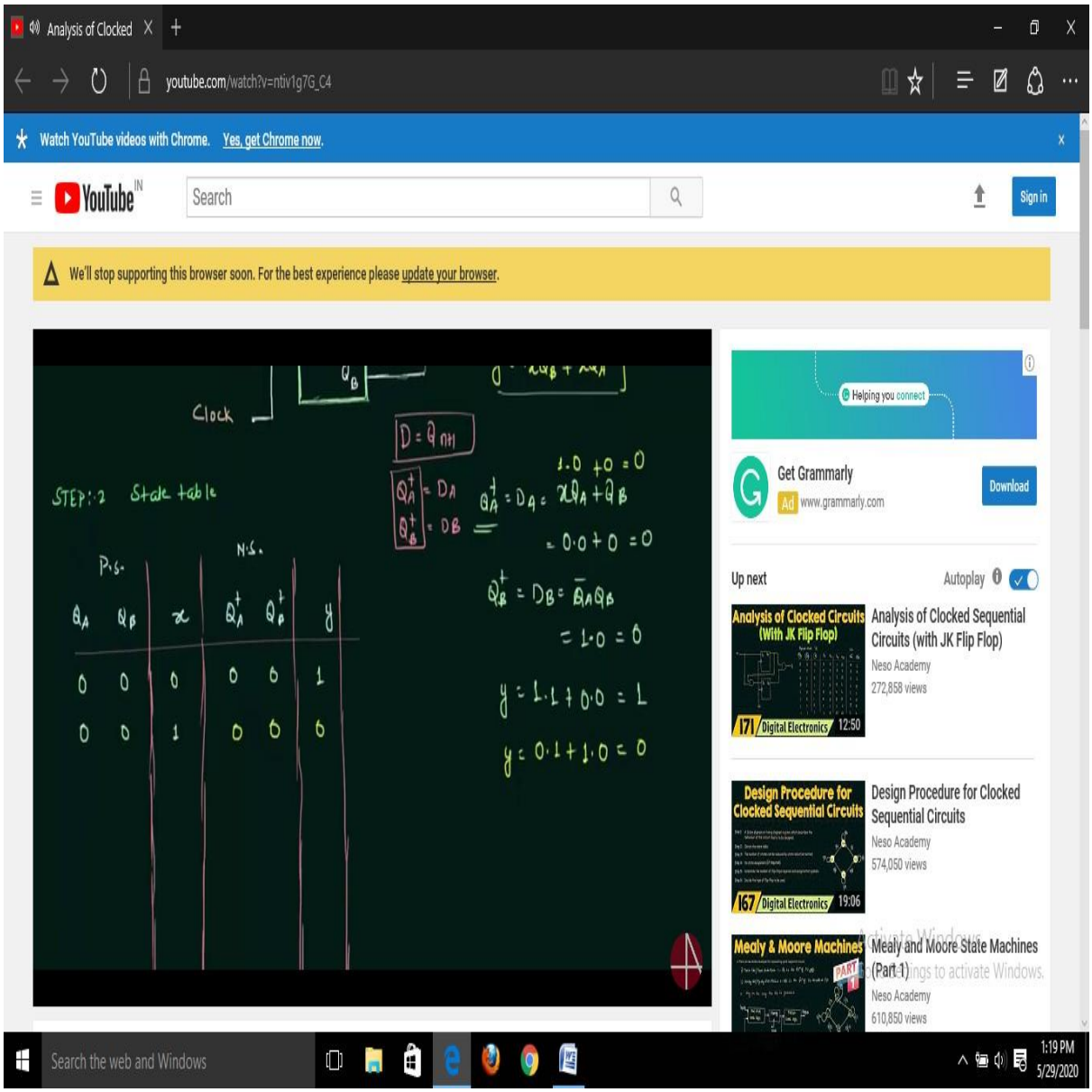
Date:	29-05-2020	Name:	Poorvi j gowad
Course:	Logic design	USN:	4al17ec071
Topic:	Analysis of clocked sequential circuits, Digital clock design	Semester and section	6thsem'B'section
Github repository:	Poorvi-2000		







Digital clock

From Wikipedia, the free encyclopedia

This article is about the appliance. For timing reference for digital audio, see Word clock.

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A **digital clock** is a type of clock that displays the time digitally (i.e. in numerals or other symbols), as opposed to an analogue clock, where the time is indicated by the positions of rotating hands.

Digital clocks are often associated with electronic drives, but the "digital" description refers only to the display, not to the drive mechanism. (Both analogue and digital clocks can be driven either mechanically or electronically, but "clockwork" mechanisms with digital displays are rare).

Basic digital alarm clock without a radio. The mark in the top-left of the display indicates that the time is 4:00pm, not 4:00am.

29/05/2020

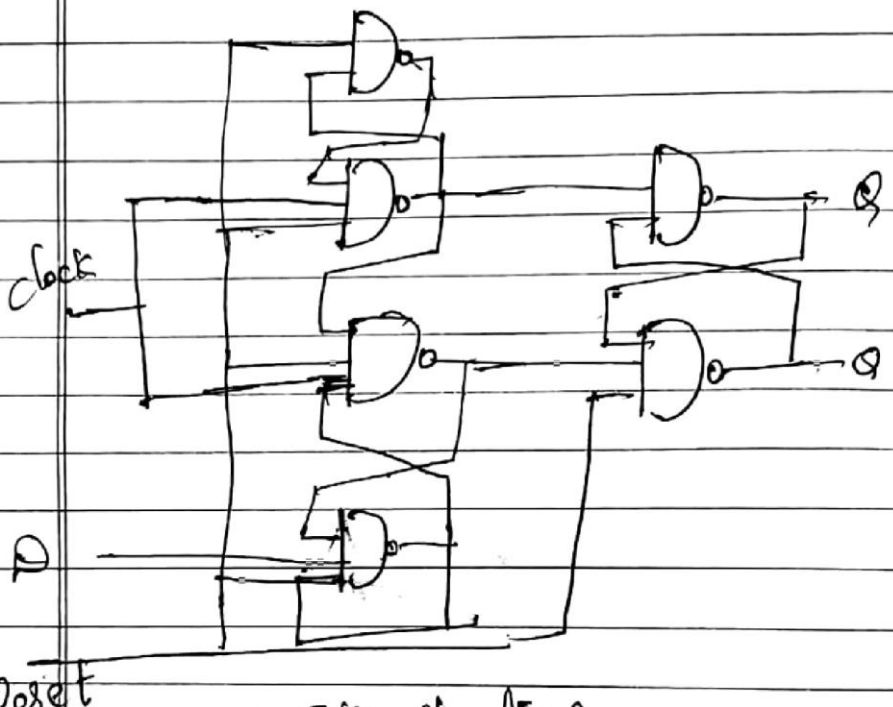
Logic Design

Day-2

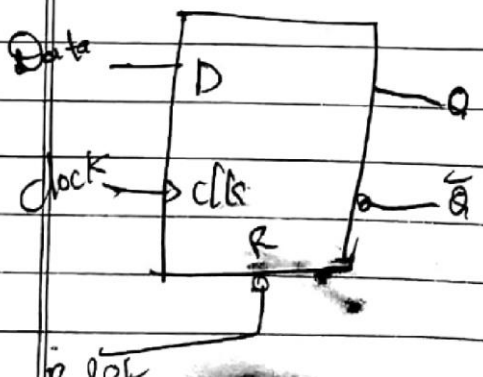
Analysis of clocked Sequential Circuits and Digital clocks design

Analysis of clocked sequential circuits

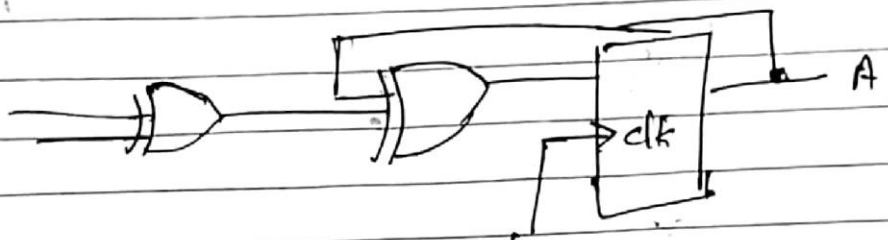
*positive edge triggered D Flip flop

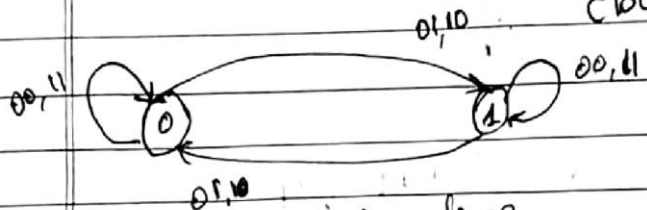


: Circuit diagram



Analysis of DFlip flop





State diagram

present state	Inputs		Next state
A	X	y	A
0	0	0	0
0	0	1	0
0	1	0	1
0	1	1	1
1	0	0	0
1	0	1	1
1	1	0	0
1	1	1	1

Analysis with JK flip-flops

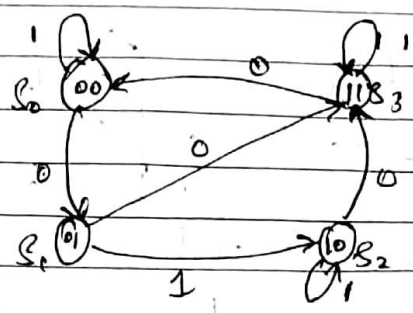
$J_A = B$; $K_A = Bx'$

$J_B = x'$; $K_B = A'x + Ax' = A \oplus x$

$A(t+1) = JA' + K'A$

$B(t+1) = JB' + K'B$

$= B(t+1) = x'B + (A \oplus x)'B = B'x' + ABx + A'Bx'$



Analysis with T flip-flops

$= Q(t+1) = T \oplus Q = T'Q + TQ'$

$= T_A = Bx$

$= T_B = x$

$= y = AB$

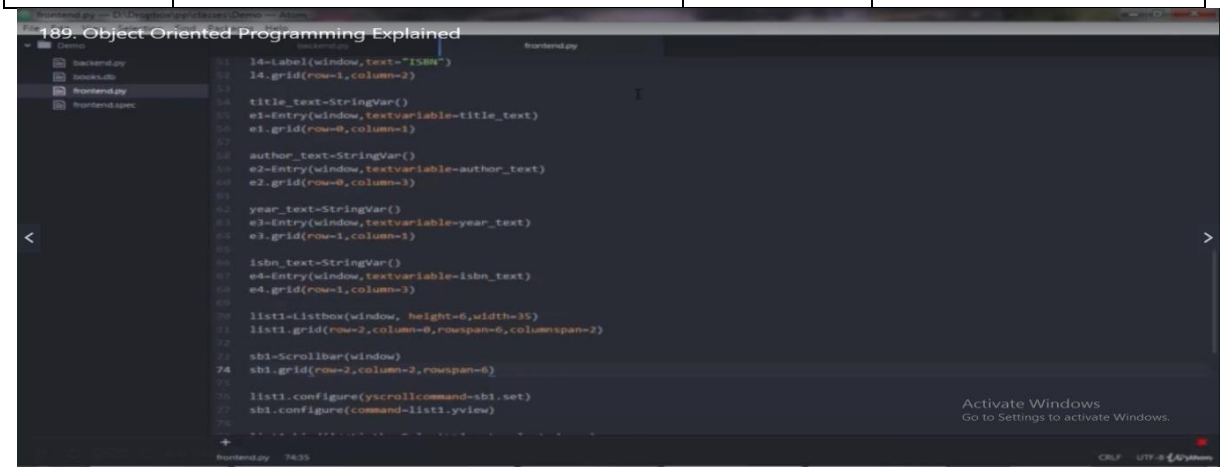
$= A(t+1) = (Bx)'A + (Bx)A' = AB' + Ax' + A'Bx$

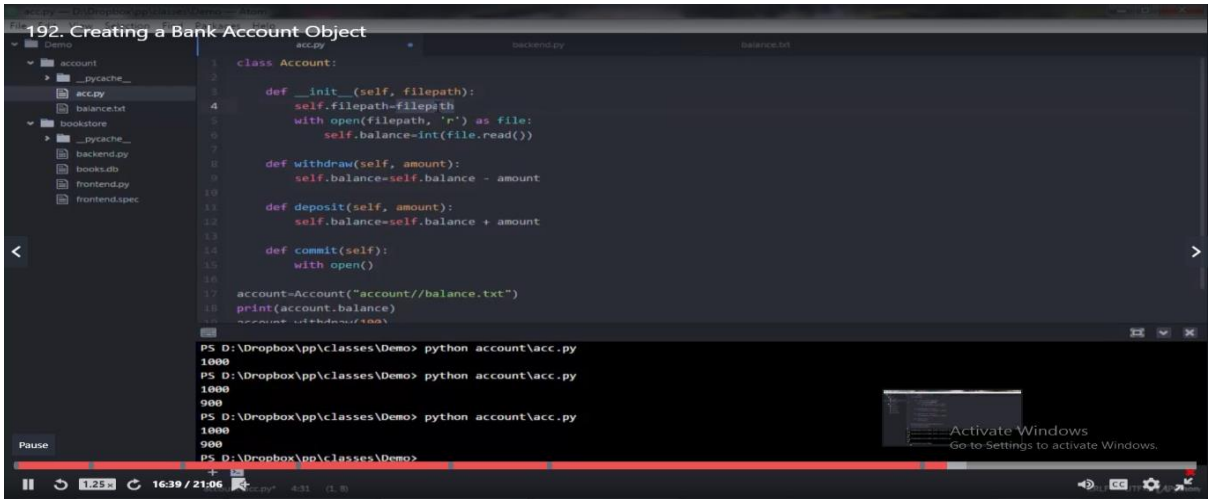
$= B(t+1) = x \oplus B$

Digital clock design

A digital clock is a type of clock that displays the time digitally, as opposed to an analogue clock, where the time is indicated by the positions of rotating hands

Date:	29-05-2020	Name:	Poorvi j gowda
Course:	Python programming	USN:	4al17ec071
Topic:	Objectoriented programming	Semester and section:	6th sem b sec





```
        self.title_text=StringVar()
        self.e1=Entry(window,textvariable=self.title_text)
        self.e1.grid(row=0,column=1)

        self.author_text=StringVar()
        self.e2=Entry(window,textvariable=self.author_text)
        self.e2.grid(row=0,column=3)

        self.year_text=StringVar()
        self.e3=Entry(window,textvariable=self.year_text)
        self.e3.grid(row=1,column=1)

        self.isbn_text=StringVar()
        self.e4=Entry(window,textvariable=self.isbn_text)
        self.e4.grid(row=1,column=3)

        self.list1=Listbox(window, height=6,width=35)
        self.list1.grid(row=2,column=0,rowspan=6,columnspan=2)

        sb1=Scrollbar(window)
        sb1.grid(row=2,column=2,rowspan=6)

        self.list1.configure(yscrollcommand=sb1.set)
        sb1.configure(command=self.list1.yview)

        self.list1.bind('<<ListboxSelect>>',self.get_selected_row)

        b1=Button(window,text="View all", width=12,command=self.viev
        b1.grid(row=2,column=3)

        b2=Button(window,text="Search entry", width=12,command=self.
        b2.grid(row=3,column=3)

        b3=Button(window,text="Add entry", width=12,command=self.ad
        b3.grid(row=4,column=3)

        b4=Button(window,text="Update selected", width=12,command=s
        b4.grid(row=5,column=3)

        b5=Button(window,text="Delete selected", width=12,command=s
        b5.grid(row=6,column=3)
```