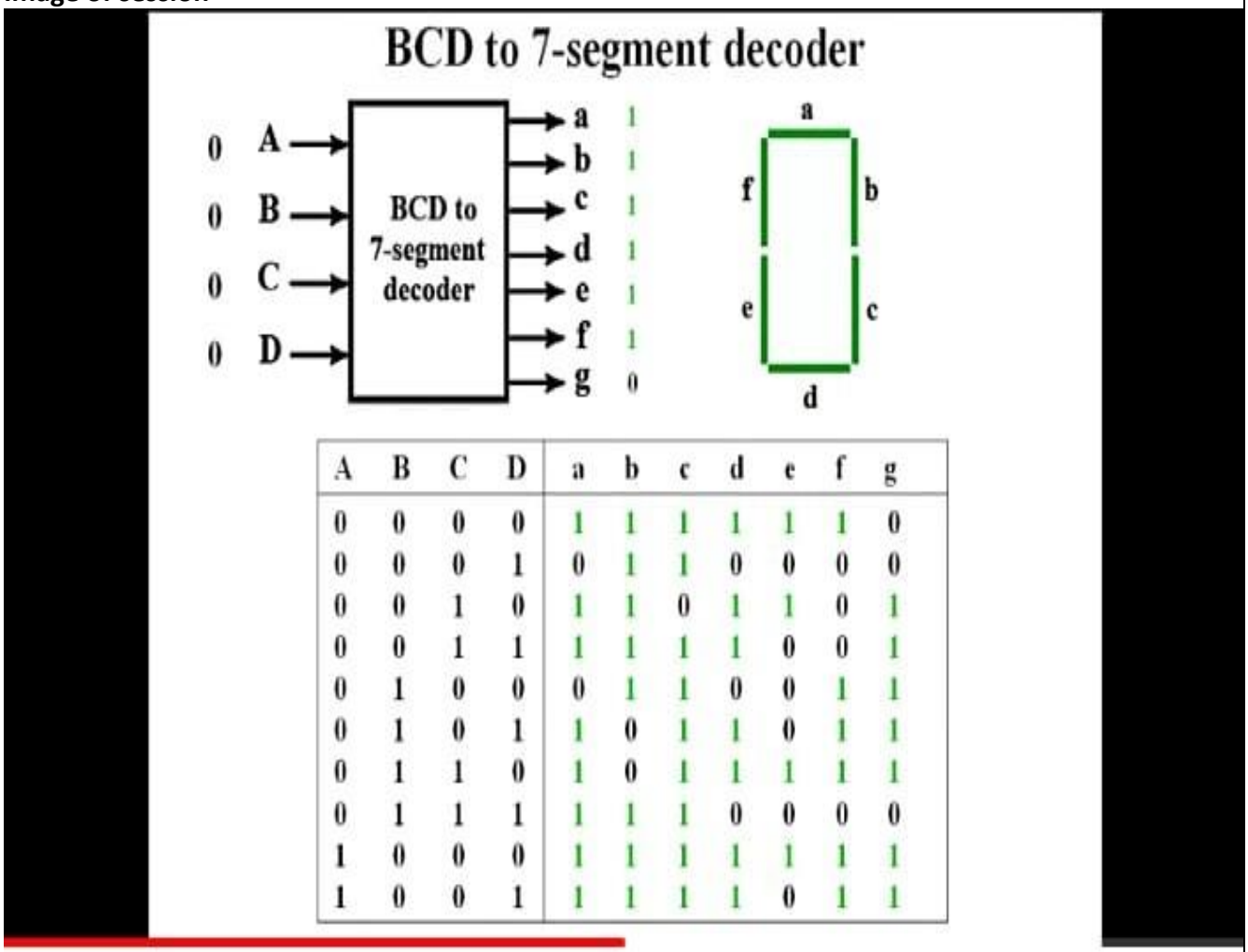
DAILY ASSESSMENT FORMAT

Date:	**28 may 2020**	**Name:**	**nishanth**
Course:		**USN:**	**4al17ec063**
Topic:	**1.Boolean equations for digital circuits. Combinational circuits: Conversion of MUX and Decoders to logic gates 2.design of 7 segment decoder with common anode display**	**Semester & Section:**	**6th & b**
Github Repository:	**nishanthvr**		

FORENOON SESSION DETAILS

Image of session



A	B	C	D	a	b	c	d	e	f	g
0	0	0	0	1	1	1	1	1	1	0
0	0	0	1	0	1	1	0	0	0	0
0	0	1	0	1	1	0	1	1	0	1
0	0	1	1	1	1	1	1	0	0	1
0	1	0	0	0	1	1	0	0	1	1
0	1	0	1	1	0	1	1	0	1	1
0	1	1	0	1	0	1	1	1	1	1
0	1	1	1	1	1	1	0	0	0	0
1	0	0	0	1	1	1	1	1	1	1
1	0	0	1	1	1	1	1	0	1	1

BCD to 7 segment decoder

day 1 — Nishant V.R (1MH17EC063)

Boolean Equation for digital circuits combinational circuits

logic gates
0 or 1

Binary operators – OR (+) and AND (.)
unary operator – NOT

$A+A=A$ $\quad A\cdot A=A$

$1+1=1$ $\quad x+0=0$

$x+0=x$ $\quad x+1=x$

$x+1=1$ $\quad x\cdot x=x$

$x+x=x$ $\quad x\cdot\bar{x}=0$

$x+\bar{x}=1$

law of Boolean Algebra

1. Commutative law

$x+y=y+x$ $\quad xy=yx$

$A+B=B+A$ $\quad AB=BA$

2. Associative law

$x+(y+z)=(x+y)+z$

$A+(B+C)=(A+B)+C$

3) distributive law

$x(y+z)=xy+xz$

$A(B+C)=AB+BC$

$x+yz=(x+y)(y+z)$

$=xx+xz+xy+yz$

$=x(1+z+y)+yz=x+yz$

Theorems of Boolean Algebra

(7) Absorption theorem

$x + xy = x$ $\quad A + AB = A$

$x(x+y)$

$x \cdot 1 = x$

(8) $x + \bar{x}y = xy$

$(x+\bar{x})(x+y)$

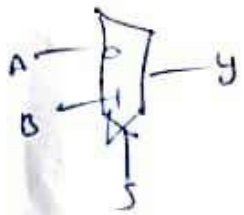
$x + y$

$A + \bar{A}B = A + B$

MUX to logic gate

NAND, NOR - Universal gate

MUX and decoder are called 'Universal gate'



$2^n - 1$ $\quad n$ - selection line

2^n - inputs

S	O/P
0	A
1	B

$Y = A\bar{S} + BS$

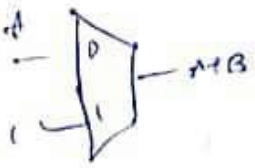
Inverter design

$Y = A\bar{S} + BS$

$Y = 1.\bar{A} + 0.A$

$Y = \bar{A}$

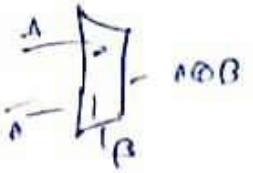
OR gate



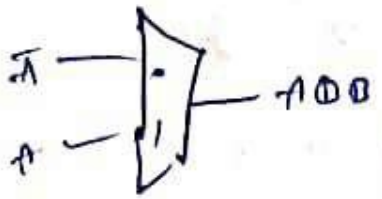
AND gate

$Y = 0.\bar{B} + A.B$

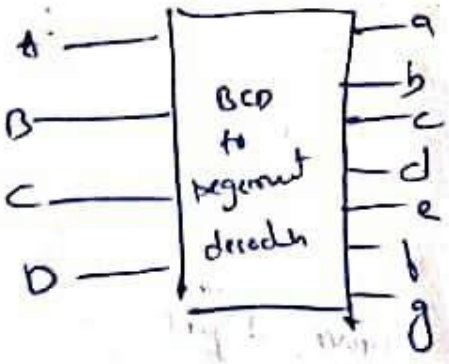
$Y = AB$

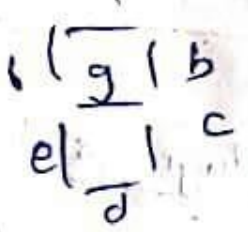


Ex-NOR gate



BCD to 7 Segment decoder

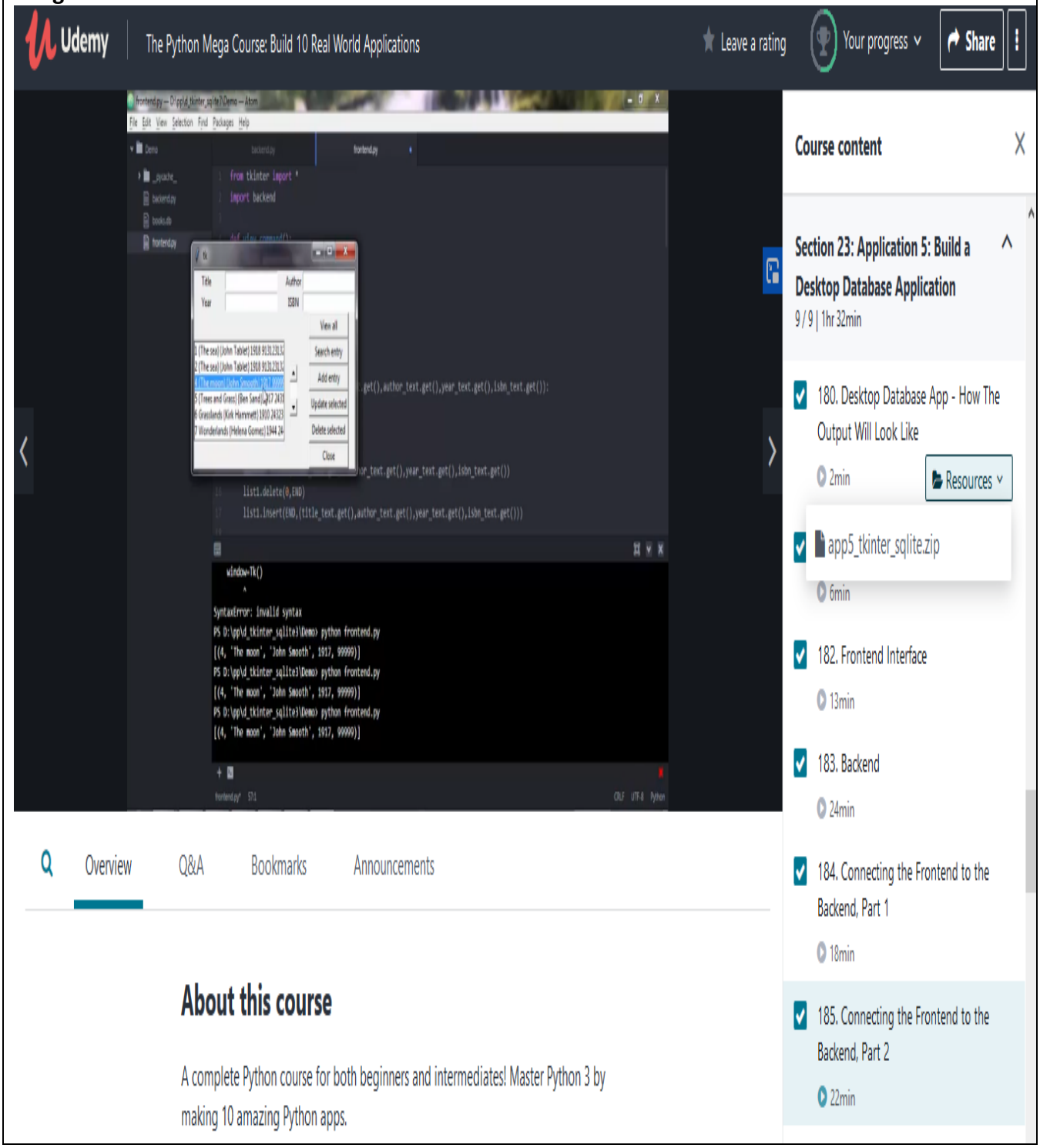




Date:	**28 may 2020**	**Name:**	**nishanth**
Course:	**python**	**USN:**	**4al 17ec063**
Topic:	**Application 5: Build a Desktop Database Application**	**Semester & Section:**	**6th & b**

AFTERNOON SESSION DETAILS

Image of session



Report – Report can be typed or hand written for up to two pages.

the program has a bug. When the listbox is empty and the user clicks the listbox, an *IndexError* is generated in the terminal:

```
1. def get_selected_row(event):
2.     try:
3.         global selected_tuple
4.         index=list1.curselection()[0]
5.         selected_tuple=list1.get(index)
6.         e1.delete(0,END)
7.         e1.insert(END,selected_tuple[1])
8.         e2.delete(0,END)
9.         e2.insert(END,selected_tuple[2])
10.          e3.delete(0,END)
11.          e3.insert(END,selected_tuple[3])
12.          e4.delete(0,END)
13.          e4.insert(END,selected_tuple[4])
14.      except IndexError:
15.          pass
```