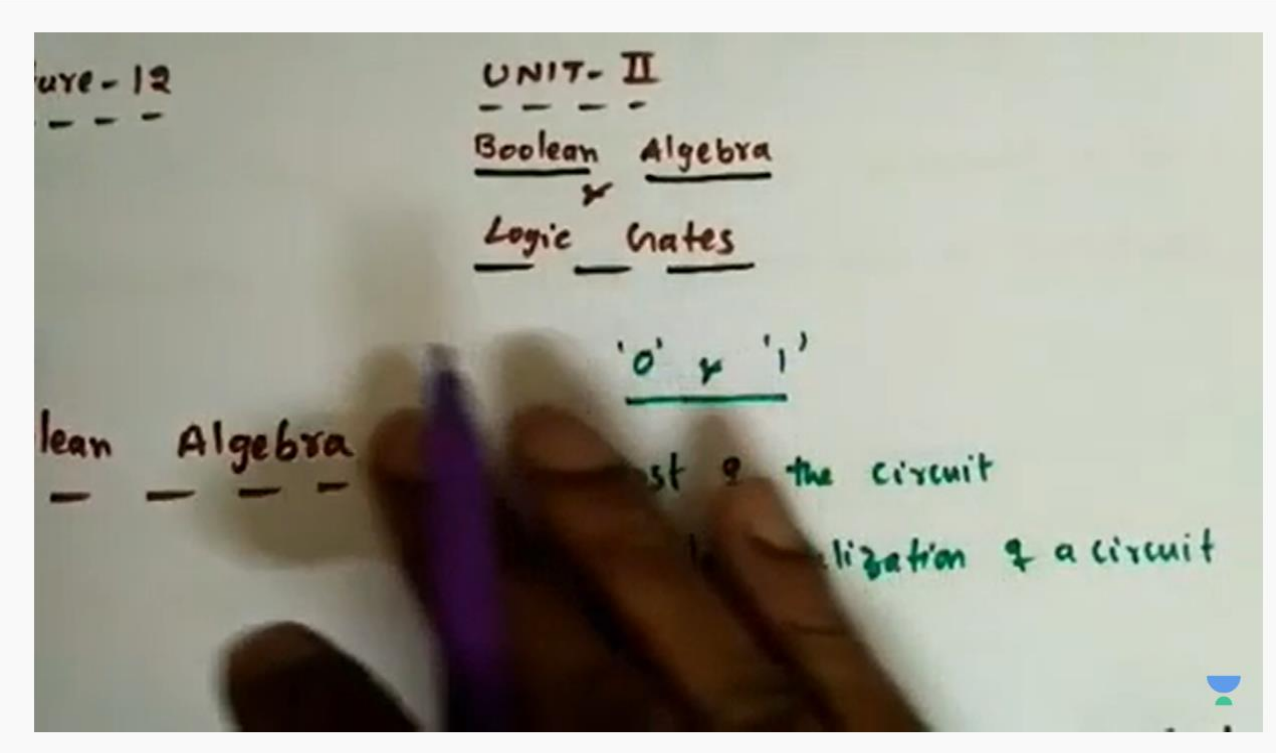
DAILY ASSESSMENT FORMAT

Date:	**28 MAY 2020**	**Name:**	**PAVITHRAN S**
Course:	**LOGIC DESIGN**	**USN:**	**4AL17EC068**
Topic:	**Boolean equations for digital circuits. Combinational circuits: Conversion of MUX and Decoders to logic gates**	**Semester & Section:**	**6TH B**
Github Repository:	**Pavithran**		

FORENOON SESSION DETAILS

Image of session



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

Boolean Algebra is used to analyze and simplify the digital (logic) circuits. It uses only the binary numbers i.e. 0 and 1. It is also called as Binary Algebra or logical Algebra. Boolean algebra was invented by George Boole in 1854.

Rule in Boolean Algebra

Following are the important rules used in Boolean algebra.

- Variable used can have only two values. Binary 1 for HIGH and Binary 0 for LOW.
- Complement of a variable is represented by an overbar (-). Thus, complement of variable B is represented as $\overline{B}$. Thus if B = 0 then $\overline{B}$ = 1 and B = 1 then $\overline{B}$ = 0.
- OR of the variables is represented by a plus (+) sign between them. For example OR of A, B, C is represented as A + B + C.
- Logical AND of the two or more variable is represented by writing a dot between them such as A.B.C. Sometime the dot may be omitted like ABC.

Boolean Laws

There are six types of Boolean Laws.

Commutative law

Any binary operation which satisfies the following expression is referred to as commutative operation.

(i) A.B = B. A (ii) A + B = B + A

Commutative law states that changing the sequence of the variables does not have any effect on the output of a logic circuit.

Associative law

This law states that the order in which the logic operations are performed is irrelevant as their effect is the same.

(i) (A.B).C = A.(B.C) (ii) (A + B) + C = A + (B + C)

Distributive law

Distributive law states the following condition.

A.(B + C) = A.B + A.C

AND law

These laws use the AND operation. Therefore they are called as AND laws.

(i) A.0 = 0 (ii) A.1 = A

(iii) A.A = A (iv) $A.\overline{A} = 0$

OR law

These laws use the OR operation. Therefore they are called as OR laws.

(i) $A + 0 = A$ (ii) $A + 1 = 1$

(iii) $A + A = A$ (iv) $A + \overline{A} = 1$

INVERSION law

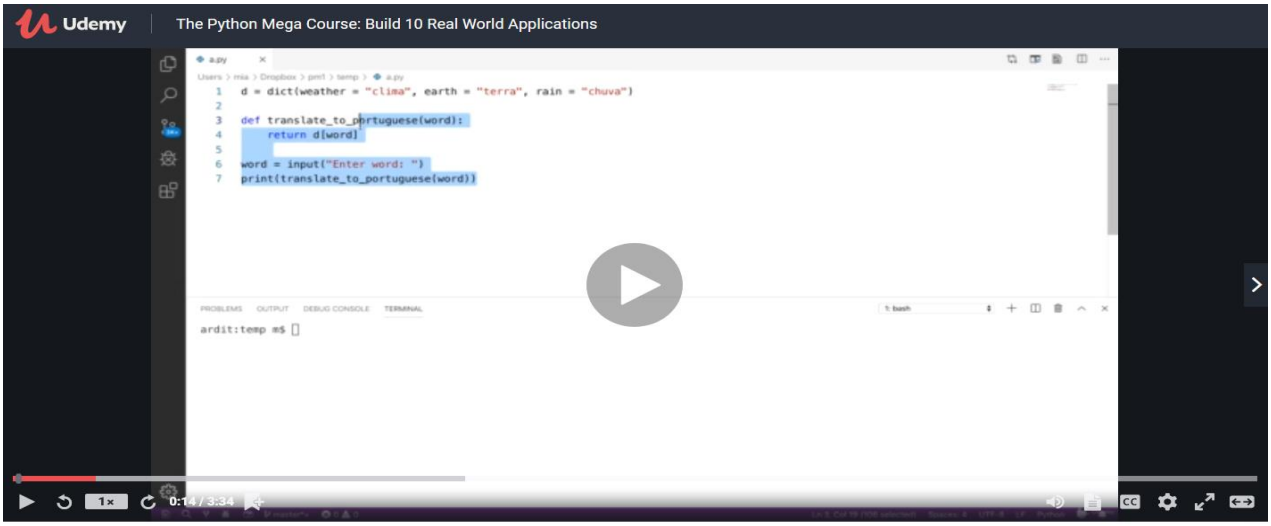
This law uses the NOT operation. The inversion law states that double inversion of a variable results in the original variable itself.

$\overline{\overline{A}} = A$

Date:	**28 MAY 2020**	**Name:**	**PAVITHRAN S**
Course:	**PYTHON**	**USN:**	**4AL17EC068**
Topic:	**IO BASIC FILES, COMPARISION OPERATORS**	**Semester & Section:**	**6th B**
Github Repository:	**Pavithran**		

AFTERNOON SESSION DETAILS

Image of session



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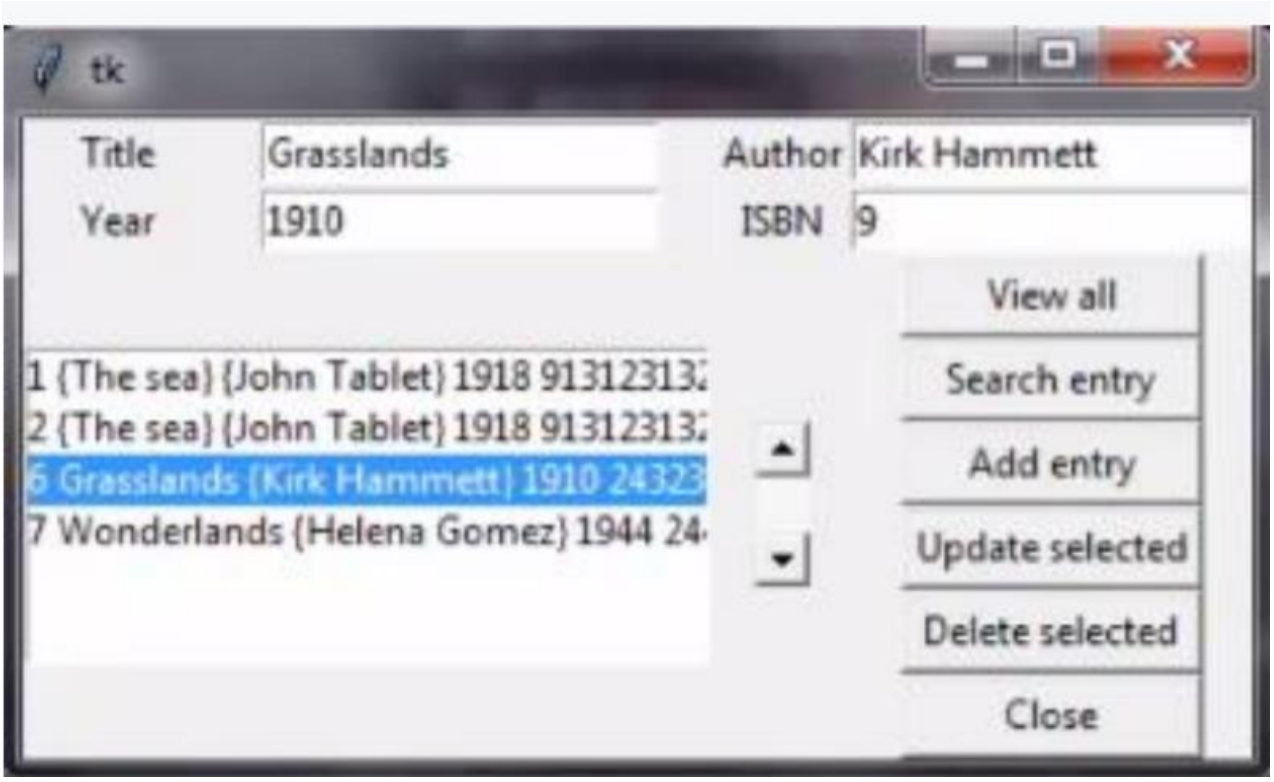
Build a Desktop Database Application: CREATE DATABASE

- A Database is defined as a structured set of data. So, in SQL the very first step to store the data in a well structured manner is to create a database. The CREATE DATABASE statement is used to create a new database in SQL.



The above picture is the window created using python.

- This Application was about creating Virtual book store by creating the window as shown above in the picture
- The program was divided into two parts Called frontend.py and backend.py and it creates a database in which all the books are stored in database.