

$x = 3$ 
$$y = 5$$

X and y are variables. Integer Variable

3 & 5 are values

```
studentName = "Arjun"
```

className="7th Grade"

studentName and className are called "String variables"

Some of form of data is always stored in a variable.

## Binary Data

[illegible]

variable in the Computer Memory

## 100 Windows

X = "Airetl Connection" => Good

Y = "BSNL". => Moderate

Friend is asking : X or Y : Internet Sure

X = DOWN Y = DOWN

UP : TRUE DOWN : FALSE

X is Down AND Y is DOWN : No INTERNET  
X is UP or Y is UP : There is Internet  
X is DOWN or Y is UP : There is Internet  
X is UP or Y is Down : There is Internet

X is FALSE AND Y is FALSE : No INTERNET X is TRUE or Y is TRUE: There is Internet X is FALSE or Y is TRUE: There is Internet X is TRUE or Y is FALSE : There is Internet

Going to the Router Light Blinking : TRUE Light Not Blinking : FALSE

X : TRUE Y : FALSE

IS INTERNET There ?

ANSWER : There is Internet

Computers using CHIPS

## AND Gates

2 Cups of MILK

Cup 1 : 200ml of Milk Cup 2 : 300ml of Milk

Put these Milks to a Big Jar : Cup 1 + Cup 2 Giving the Big Jar to your Mom :

Spoiled : FALSE Good : True

CUP 1 : X Cup 2 : Y

- The milk seems to be spoiled in the Big jar =>
  - Either Cup1 Milk as Spoiled and Cup 2 was Good : X is FALSE AND Y IS TRUE => X=FALSE and Y=TRUE : Spoiled => FALSE
  - Either Cup1 Milk and Cup2 Milk both are Spoiled : X is FALSE AND Y IS FALSE=> X=FALSE and Y=FALSE: Spoiled => FALSE
  - Either Cup 1 Milk was Good but Cup2 was Spoiled : X is TRUE AND Y IS FALSE => X=FALSE and Y=TRUE : Spoiled => FALSE
- The milk seems to be good in the Big jar
  - Both Cup1 and Cup2 Milk are Good : X is TRUE AND Y IS TRUE=> X=TRUE and Y=TRUE : Good=> TRUE

X is FALSE and Y is FALSE. : FALSE X is TRUE and Y is TRUE : TRUE X is FALSE and Y is TRUE : FALSE X is TRUE and Y is FALSE: FALSE

OR Gates

### FORMULA

$X = \text{FALSE}$  OR  $Y = \text{FALSE}$  : No INTERNET :  $\text{FALSE}$   
 $X = \text{TRUE}$  OR  $Y = \text{TRUE}$ : There is Internet  
 $X = \text{FALSE}$  OR  $Y = \text{TRUE}$ : There is Internet  
 $X = \text{TRUE}$  OR  $Y = \text{FALSE}$  : There is Internet

AND Gates

### FORMULA

$X = \text{FALSE}$  AND  $Y = \text{FALSE}$  :  $\text{FALSE}$   
 $X = \text{TRUE}$  AND  $Y = \text{TRUE}$ :  $\text{TRUE}$   
 $X = \text{FALSE}$  AND  $Y = \text{TRUE}$ :  $\text{FALSE}$   
 $X = \text{TRUE}$  AND  $Y = \text{FALSE}$  :  $\text{FALSE}$

**NOT GATES** : CHIP

### ANTONYMS

BAD : GOOD

TRUE : FALSE

**NOR GATE** for Dance Classs ( NOT + OR)

$X = \text{FALSE}$  OR  $Y = \text{FALSE}$  : Dance Class= NOT (  $\text{FALSE}$ ) :  $\text{TRUE}$   
 $X = \text{TRUE}$  OR  $Y = \text{TRUE}$ : : Dance Class= NOT (  $\text{TRUE}$ ) :  $\text{FALSE}$   
 $X = \text{FALSE}$  OR  $Y = \text{TRUE}$ : : Dance Class= NOT (  $\text{TRUE}$ ) :  $\text{FALSE}$   
 $X = \text{TRUE}$  OR  $Y = \text{FALSE}$  : : Dance Class= NOT (  $\text{TRUE}$ ) :  $\text{FALSE}$

**NAND GATE** ( NOT + AND)

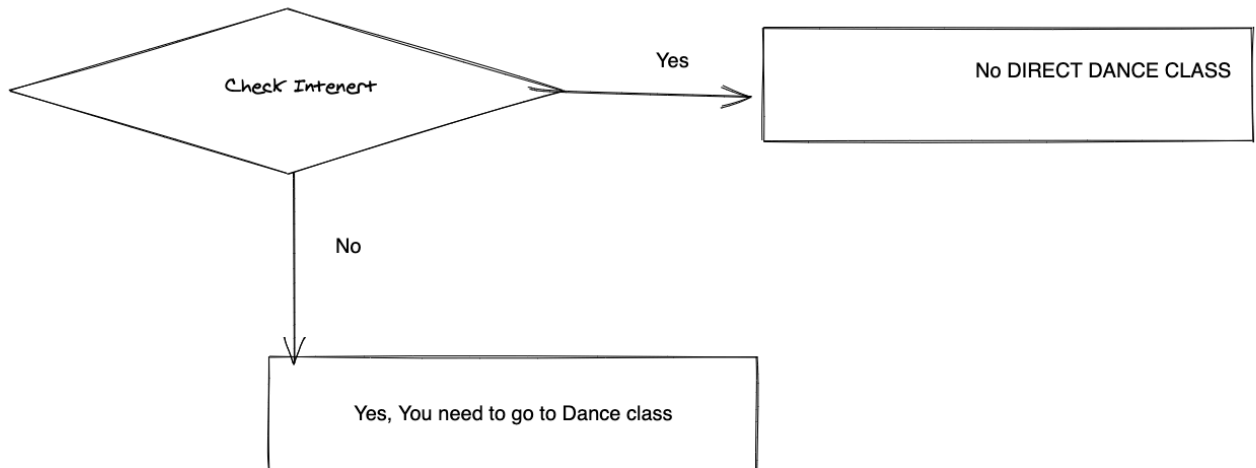
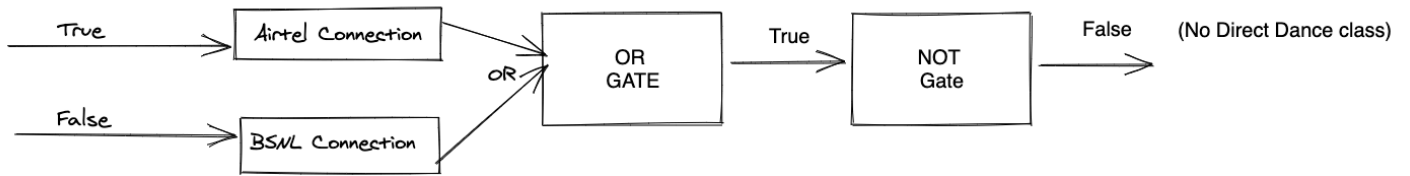
**Can i use the MILK for making Paneer ?**

$X = \text{FALSE}$  AND  $Y = \text{FALSE}$  :  $\text{FALSE}$  : NOT (  $\text{FALSE}$  ) :  $\text{TRUE}$  : MILK can be used for making Paneer  
 $X = \text{TRUE}$  AND  $Y = \text{TRUE}$ :  $\text{TRUE}$  : NOT (  $\text{TRUE}$ ) :  $\text{FALSE}$ : MILK cannot be used for making Paneer  
 $X = \text{FALSE}$  AND  $Y = \text{TRUE}$ :  $\text{FALSE}$  : NOT (  $\text{FALSE}$ ) :  $\text{TRUE}$  : MILK can be used for making Paneer  
 $X = \text{TRUE}$  AND  $Y = \text{FALSE}$  :  $\text{FALSE}$  : NOT (  $\text{FALSE}$  ) :  $\text{TRUE}$  : MILK can be used for making Paneer

Should i need to go to internet class

INTERNET is Available : True

OUTPUT

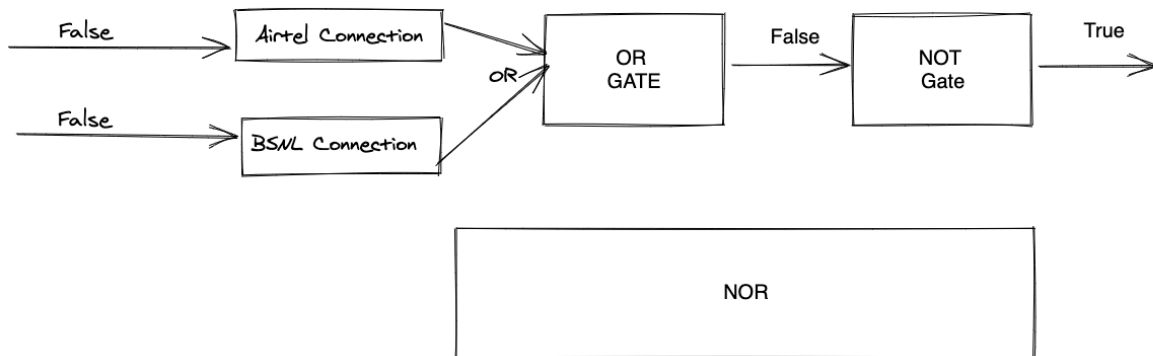


Should i need to go to internet class

INTERNET is Available : True

OUTPUT

(Yes, You need to Go Internet Class)



I am speaking here with the Mic ON :

- AUDIO Vibration is captured by the small mic
- Sends to my Laptop as Analog Signals ( VOLTAGE Based/ Current Waves)
- Audio Chip : It will take the Signal of Current Waves
- Converts it to 0 and 1 (Binary),  
001 => Ayush
- Skype Server - United States of America
- Skype Server will Send to Ayush Computer
- Skype : Watch for any Signals
- Receive the Signals, then will Convert the Binary Signals to a Analog Form and send Sends the WAVES to your speaker (Headphone)

< 2 seconds

Analog works based on Current Signals/Waves Digital Works within the PC/SmartPhone

Speakers : Analog Devices

## BOOLEAN Logics : LOGIC Gates