ULTIMATE WEB-DEV COURSE

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DATE 26-09-24
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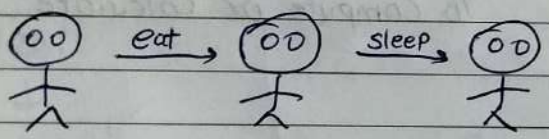
* Lecture - 1 - Introduction

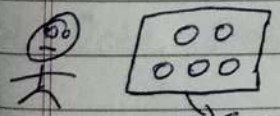
1) Respect the course and complete it.
2) Maintain consistency.
3) Make a fixed schedule.
4) Make notes.
5) Deploy code on GitHub.
6) Maintain accountability.
7) Your Resume should motivate you.
8) After live class, try to solve questions yourself.

Internet → connection → Computer.



Solve

Dog, Cow, Buffalo → Domestic



Tally Mark

↓ stones were compared to Goats.

- 1000 Goat → Now what ?

↓

Number System → Base 60 → 60 unique digits

* Base 10 → 10 unique digits.

↓

[0, 1, 2, 3, 4, 5, 6, 7, 8, 9]

- Developed from India.

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How Counting was done ?

[0, 1, 2, 3, 4, 5, 6, 7, 8, 9]
3 4 5 6 7 1 2

7
+6
13

↳ For 1 round of number.

1800 century — Trade → Register. → Was difficult to calculate.

↓

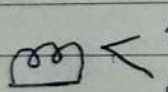
Computer was developed

↓

To Compute or Calculate.

- Big Computers.
- Physical Computer.
- Human operated computer
- Accuracy increased but was very slow.

1950 Transistor was developed.



- Binary number system was developed.

Base 2 [0, 1]

0 + 0 = 0
0 + 1 = 1
1 + 0 = 1
1 + 1 = 10 (1 round complete.) (2)
10 + 1 = 11 (3)
11 + 1 = 100 (4)
100 + 1 = 101 (5)

* Decimal to Binary

1) 27

2	27	
2	13	1
2	6	1
2	3	0
2	1	1
	0	0+1=1

→ 11011

2) 57

2	57	
2	28	1
2	14	0
2	7	0
2	3	1
2	1	1
	0	1

→ 111001

* Binary to decimal

1) 11011

$1\times2^4 + 1\times2^3 + 0\times2^2 + 1\times2^1 + 1\times2^0$

$16 + 8 + 2 + 1 = 27$

* Octa-Decimal

Base-8 → [0, 1, 2, 3, 4, 5, 6, 7]

1)

8	37	
8	4	5
	0	4

→ $(45)_8$

$4\times8^1 + 5\times8^0$

$32 + 5 = 37$

* Hexa-decimal

Base 16 → [0, 1, 2, 3, 4, 5, 6, 7, 8, 9, A, B, C, D, E, F]

6 unique characters

1) 38

16	38	6
16	2	2
	0	

↑ $(26)_{16}$

$(26) \rightarrow 2\times16^1 + 6\times16^0$

$32 + 6 = 38$

* Transistor
  - With help of transistors & number systems, computers were optimized.
  - Binary number system made it easy to store numbers.

0000 0000
1101
Easily store.

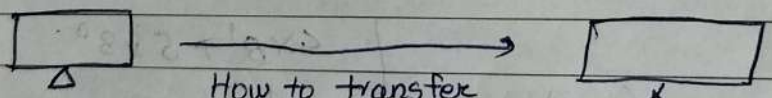
13 store ?
1101

31 store ?
11111

11111

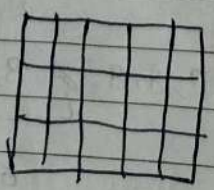
That bulbs were kept on rest off !

- RAM size increased !
- Transistors increased rapidly.

1950 → 

- Tape or sheet was used.
  - rows & columns

14
1110



If 1 then hole, If 0 then no hole

Interaction were

Sheet was taken to hu

Punching Task