

Techtorial Academy

Batch-6

Reminders

- No NEGATIVITY
- ONLY English
- Clean after yourself
- At class time do not play games
- Two mentoring a month is required
- Ask questions from the slack channel
- Do not COMPLAIN
- Do not bring the kids to the school

How to get the most out of the school?

JULY 27, 2020

- 90 percent of attendance
- Finish assignments on time
- Do mentoring
- Answer questions
- Record yourself for interview questions
- Come early, leave late

Class TIMES

6:00 - 7:00pm

10 min break

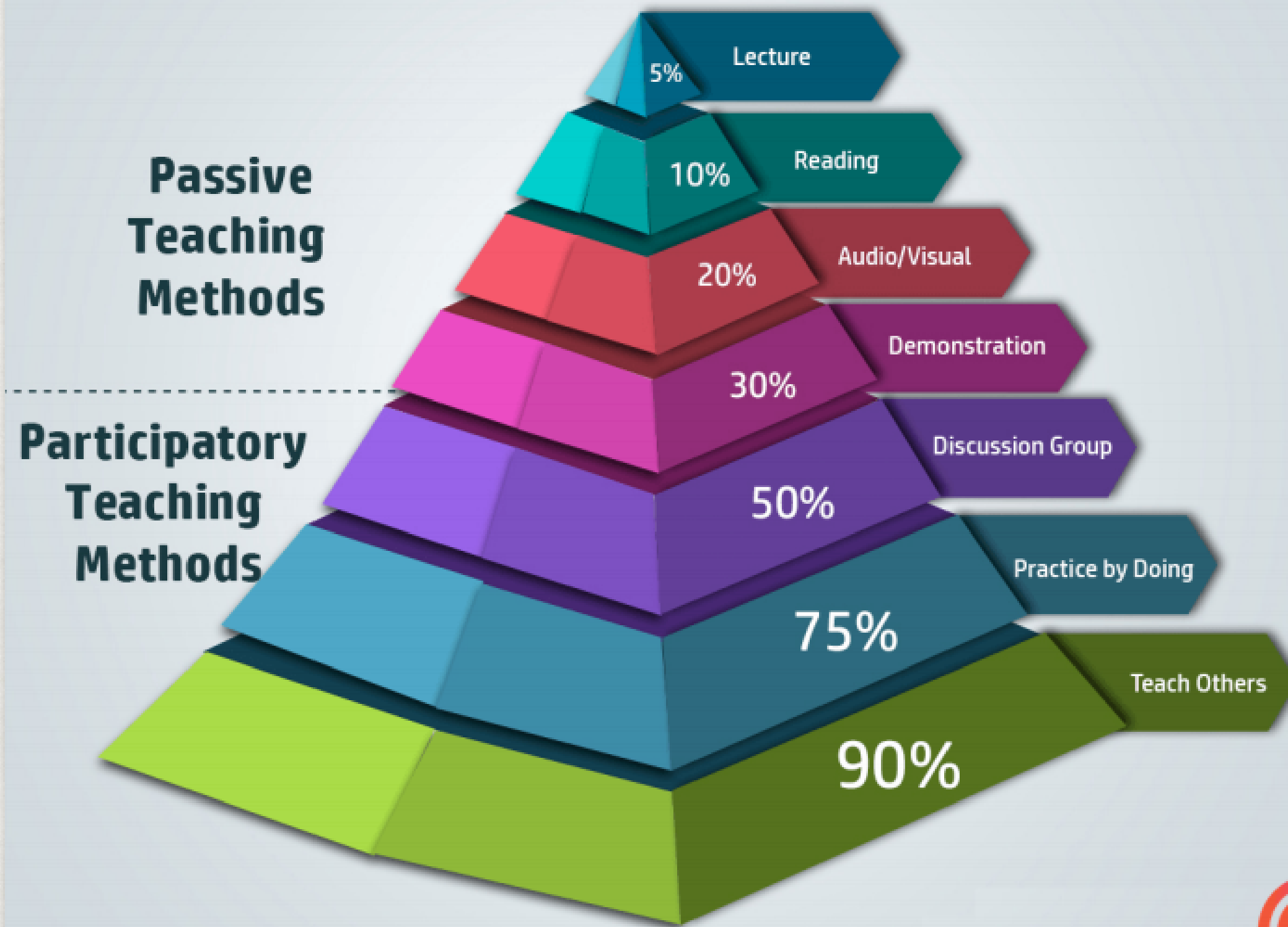
7.10 - 8 pm

10 min break

8.10 - 9.00 pm

THE LEARNING PYRAMID

KNOWLEDGE RETENTION RATES



Adapted from National Training Laboratories, Maine



Today's Topics



- What is SDET?
- What we will learn within 6 months?
- Computer?
- Programming Languages?
- How computer works? (Binary System)
- What is Algorithm in computer science?
- What is pseudoCode?
- Scratch

What is SDET?

TOOLS

- *Java Programming Language*
- *Selenium WebDriver*
- *Selenium Grid*
- *Cucumber*
- *TestNG*
- *JUNIT*
- *SQL*
- *Rest Assured Library for API Testing*
- *Appium*

COMPUTER

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*COMPUTER IS AN ELECTRONIC DEVICE
THAT MANIPULATES INFORMATION OR
DATA*

*COMPUTER ACCEPTS THE DATA AND
MANIPULATES THE DATA AND IT
PROVIDES THE RESULT ACCORDING TO
THE MANIPULATION*

COMPUTER COMPONENTS?

- *RAM*
- *CPU*
- *Hard Disk*
- *Input Devices*
- *OutPut Devices*

Operating System

- *Operating system is the primary software that manages all the hardware and other software on a computer.*

How Computer Works?

- *Decimal Numbers*
- *Binary Digits*

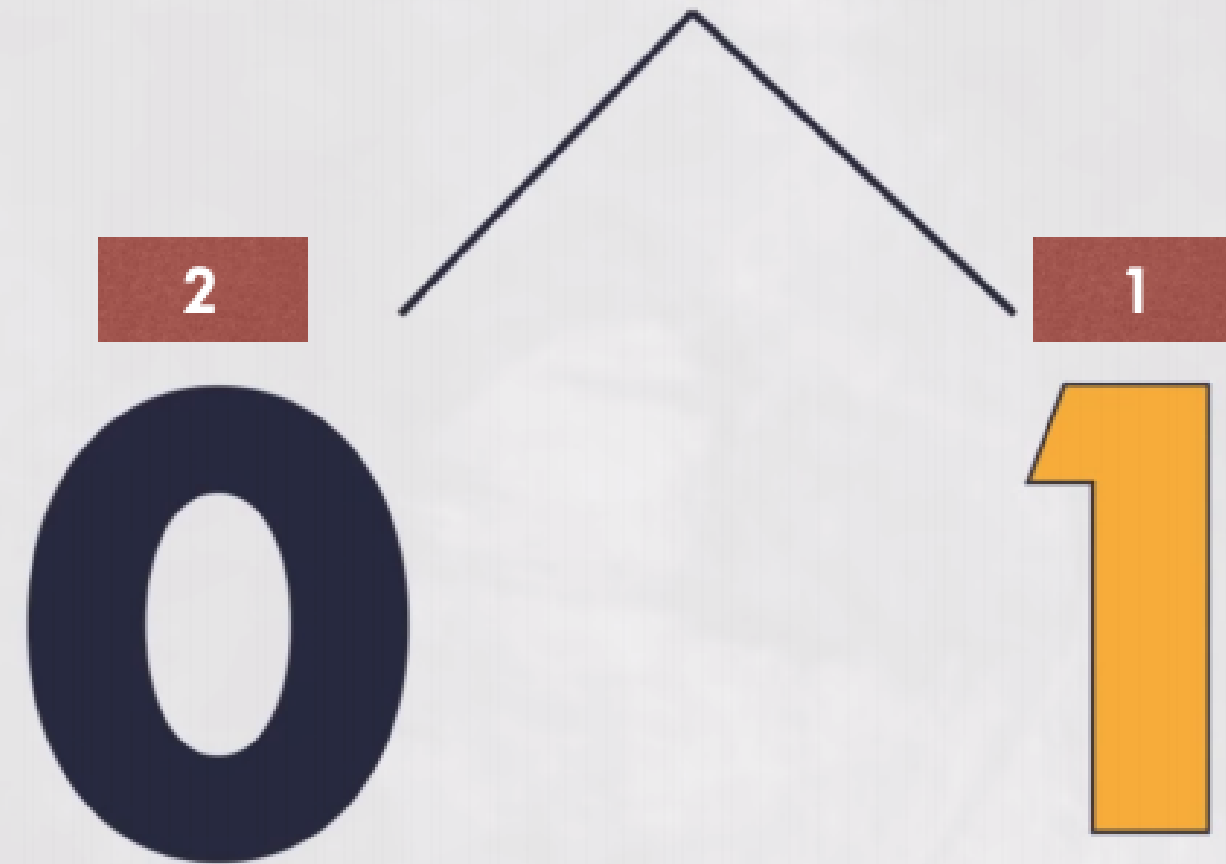
How Computer Works?

- *Decimal Numbers* ----> 0 1 2 3 4 5 6 7 8 9
- *Binary Digits* ----> 0 1

Notes

- *Computer converts inputs to the 0's and 1's to be able to understand.*
- *One 0 or 1 is equals one bit.*
- *8 bit is equals one byte. 00110100 = byte*

Bit



How to Convert Decimal to Binary?



How to Convert Letter to Binary?

letter ---> Decimal ---> Binary

ASCII TABLE

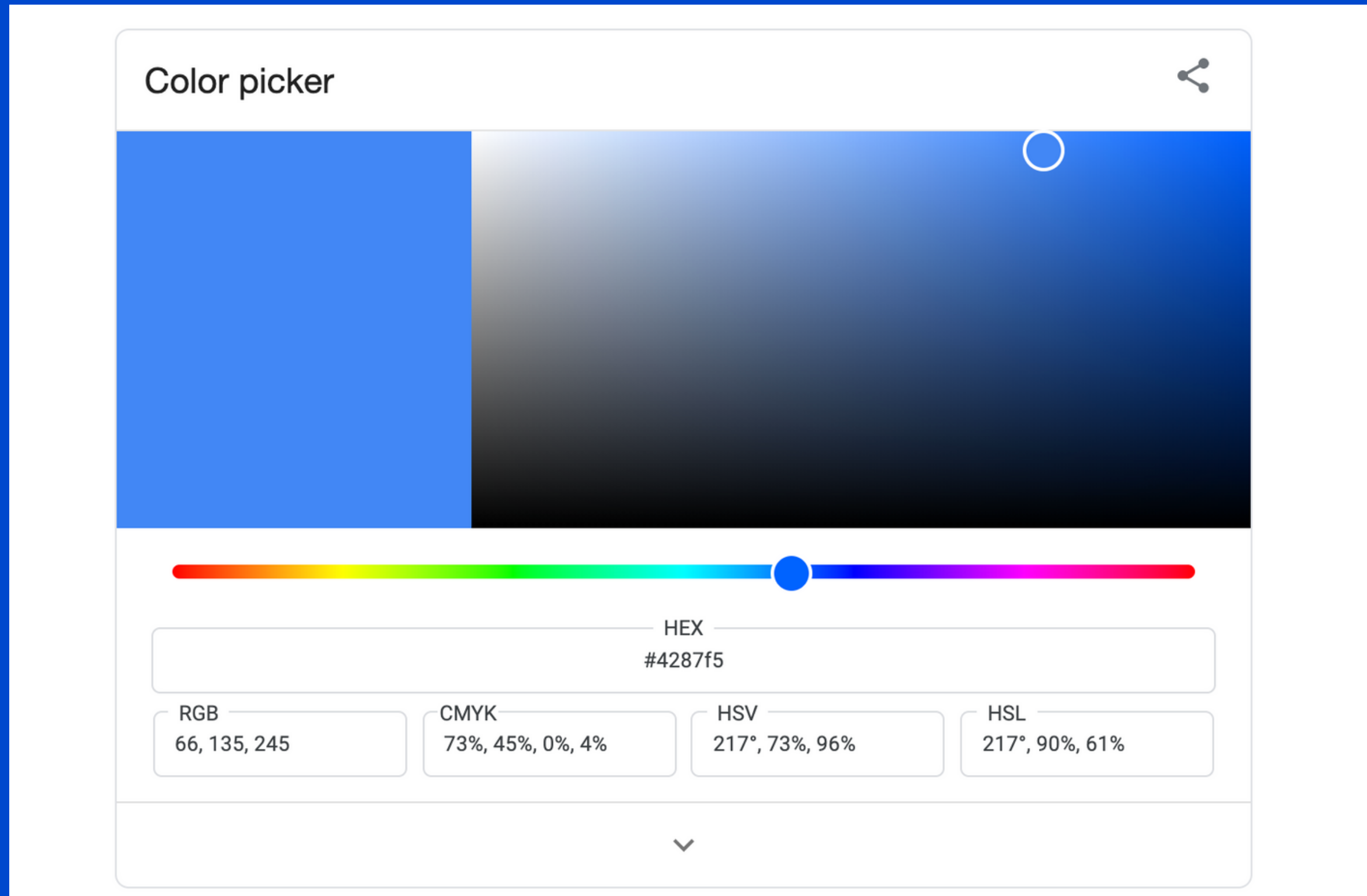
(American Standard Code for
Information Interexchange)

Dec	Hex	Oct	Chr	Dec	Hex	Oct	HTML	Chr	Dec	Hex	Oct	HTML	Chr	Dec	Hex	Oct	HTML	Chr
0	0	000	NULL	32	20	040	 	Space	64	40	100	@	@	96	60	140	`	`
1	1	001	Start of Header	33	21	041	!	!	65	41	101	A	A	97	61	141	a	a
2	2	002	Start of Text	34	22	042	"	"	66	42	102	B	B	98	62	142	b	b
3	3	003	End of Text	35	23	043	#	#	67	43	103	C	C	99	63	143	c	c
4	4	004	End of Transmission	36	24	044	$	\$	68	44	104	D	D	100	64	144	d	d
5	5	005	Enquiry	37	25	045	%	%	69	45	105	E	E	101	65	145	e	e
6	6	006	Acknowledgment	38	26	046	&	&	70	46	106	F	F	102	66	146	f	f
7	7	007	Bell	39	27	047	'	'	71	47	107	G	G	103	67	147	g	g
8	8	010	Backspace	40	28	050	((72	48	110	H	H	104	68	150	h	h
9	9	011	Horizontal Tab	41	29	051))	73	49	111	I	I	105	69	151	i	i
10	A	012	Line feed	42	2A	052	*	*	74	4A	112	J	J	106	6A	152	j	j
11	B	013	Vertical Tab	43	2B	053	+	+	75	4B	113	K	K	107	6B	153	k	k
12	C	014	Form feed	44	2C	054	,	,	76	4C	114	L	L	108	6C	154	l	l
13	D	015	Carriage return	45	2D	055	-	-	77	4D	115	M	M	109	6D	155	m	m
14	E	016	Shift Out	46	2E	056	.	.	78	4E	116	N	N	110	6E	156	n	n
15	F	017	Shift In	47	2F	057	/	/	79	4F	117	O	O	111	6F	157	o	o
16	10	020	Data Link Escape	48	30	060	0	0	80	50	120	P	P	112	70	160	p	p
17	11	021	Device Control 1	49	31	061	1	1	81	51	121	Q	Q	113	71	161	q	q
18	12	022	Device Control 2	50	32	062	2	2	82	52	122	R	R	114	72	162	r	r
19	13	023	Device Control 3	51	33	063	3	3	83	53	123	S	S	115	73	163	s	s
20	14	024	Device Control 4	52	34	064	4	4	84	54	124	T	T	116	74	164	t	t
21	15	025	Negative Ack.	53	35	065	5	5	85	55	125	U	U	117	75	165	u	u
22	16	026	Synchronous idle	54	36	066	6	6	86	56	126	V	V	118	76	166	v	v
23	17	027	End of Trans. Block	55	37	067	7	7	87	57	127	W	W	119	77	167	w	w
24	18	030	Cancel	56	38	070	8	8	88	58	130	X	X	120	78	170	x	x
25	19	031	End of Medium	57	39	071	9	9	89	59	131	Y	Y	121	79	171	y	y
26	1A	032	Substitute	58	3A	072	:	:	90	5A	132	Z	Z	122	7A	172	z	z
27	1B	033	Escape	59	3B	073	;	;	91	5B	133	[[123	7B	173	{	{
28	1C	034	File Separator	60	3C	074	<	<	92	5C	134	\	\	124	7C	174	|	
29	1D	035	Group Separator	61	3D	075	=	=	93	5D	135]]	125	7D	175	}	}
30	1E	036	Record Separator	62	3E	076	>	>	94	5E	136	^	^	126	7E	176	~	~
31	1F	037	Unit Separator	63	3F	077	?	?	95	5F	137	_	_	127	7F	177		Del

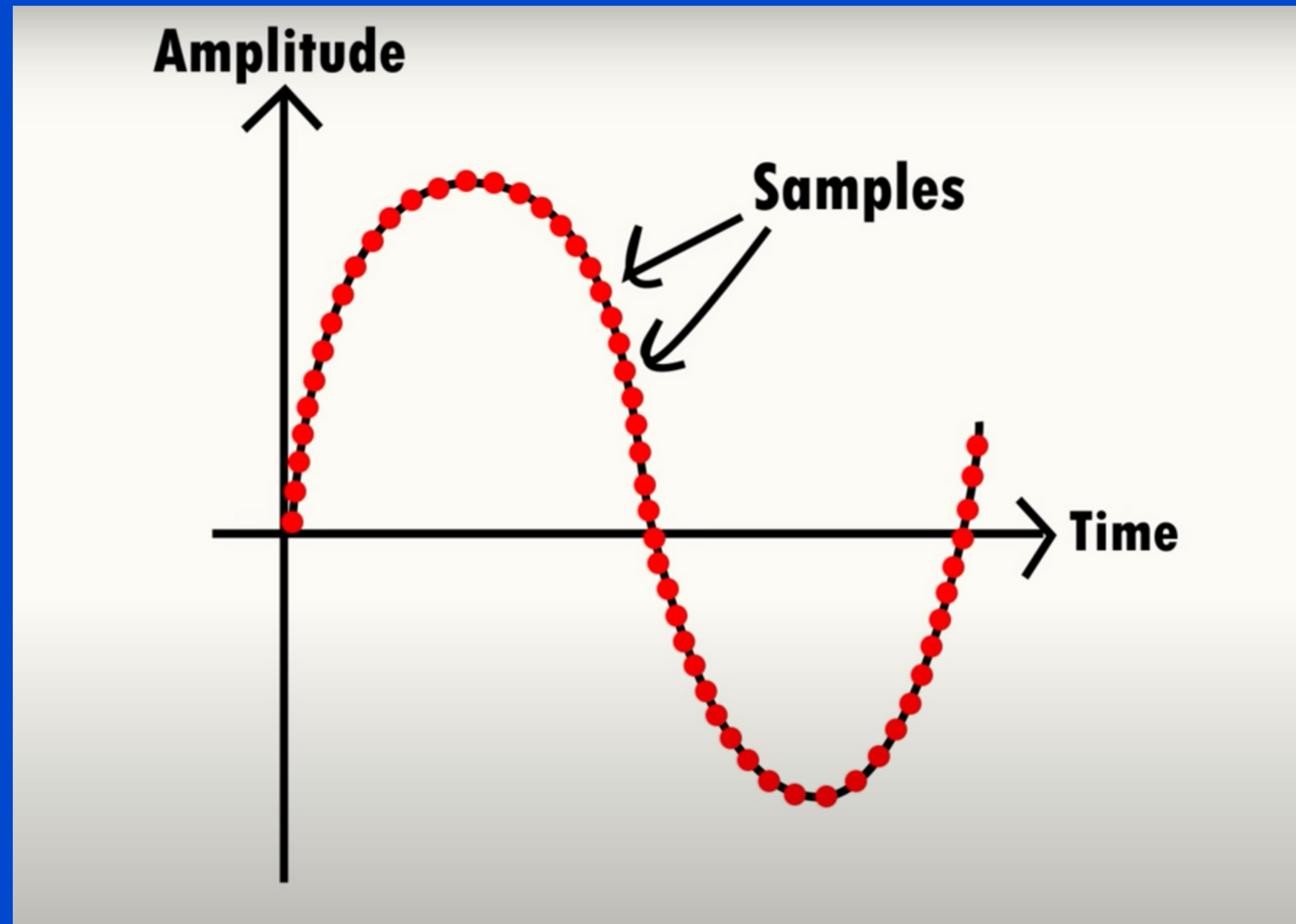
Text, Image and Sound

- *Text, Image and Sound first will be converted to the decimal number then binary where computer can understand.*
- *Computer understand only electronic signals. 5 volt represent the Binary 1 and 0 volt represent the binary 0.*

IMAGE



SOUND



Programming Languages

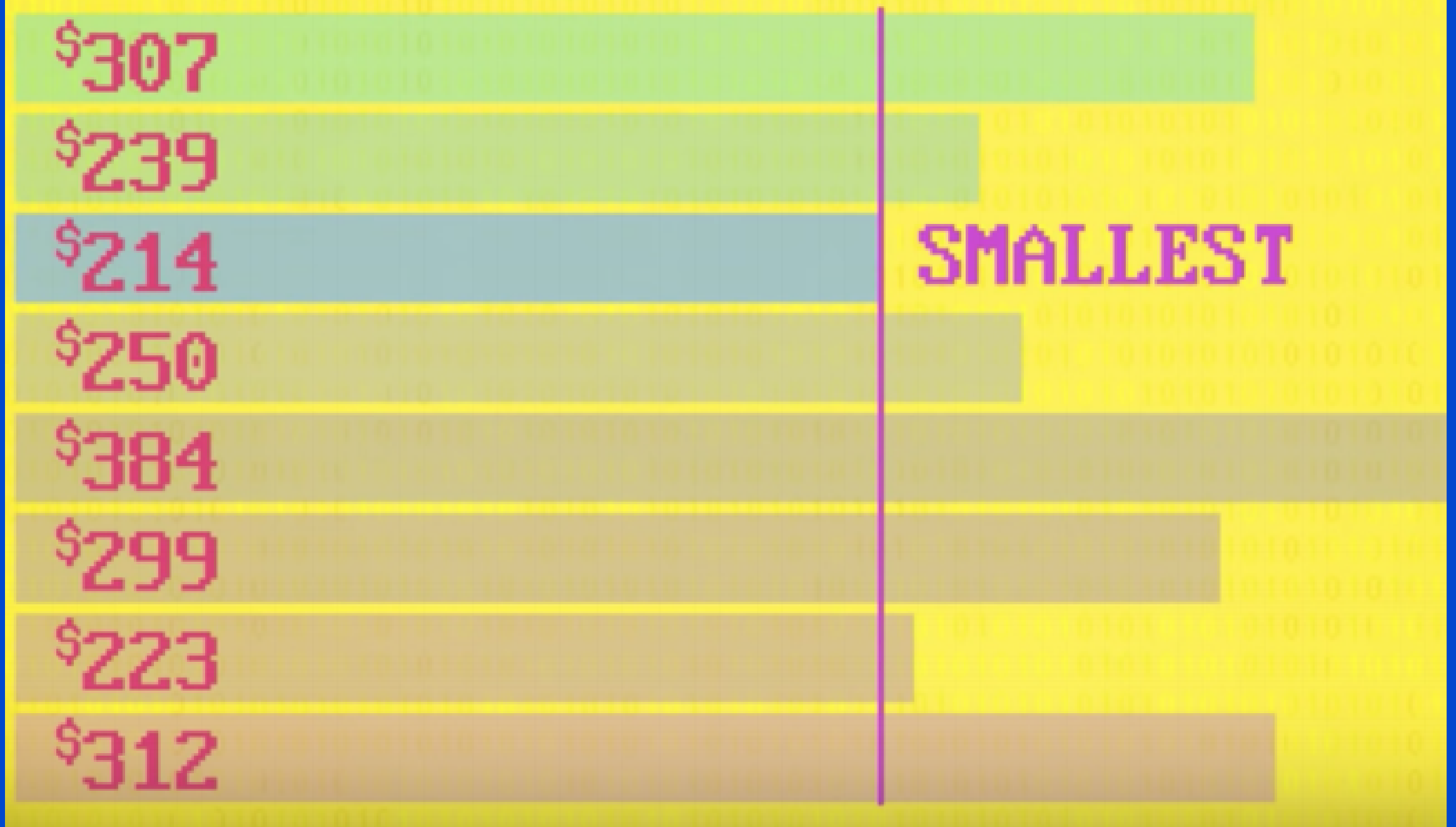
They tell the computer what to do. According to the terms and directions computer creates some output for example mobile application and web applications.

ALGORITHMS

- IN COMPUTER SCIENCE AN ALGORITHM IS SET OF INSTRUCTIONS, TYPICALLY TO SOLVE A CLASS OF PROBLEMS.
- IT IS SET OF STEPS
- IT SHOULD BE IN PARTICULAR ORDER
- IT HELPS TO SOLVE THE PROBLEM

BUBBLE SORTING WITH ALGORITHM

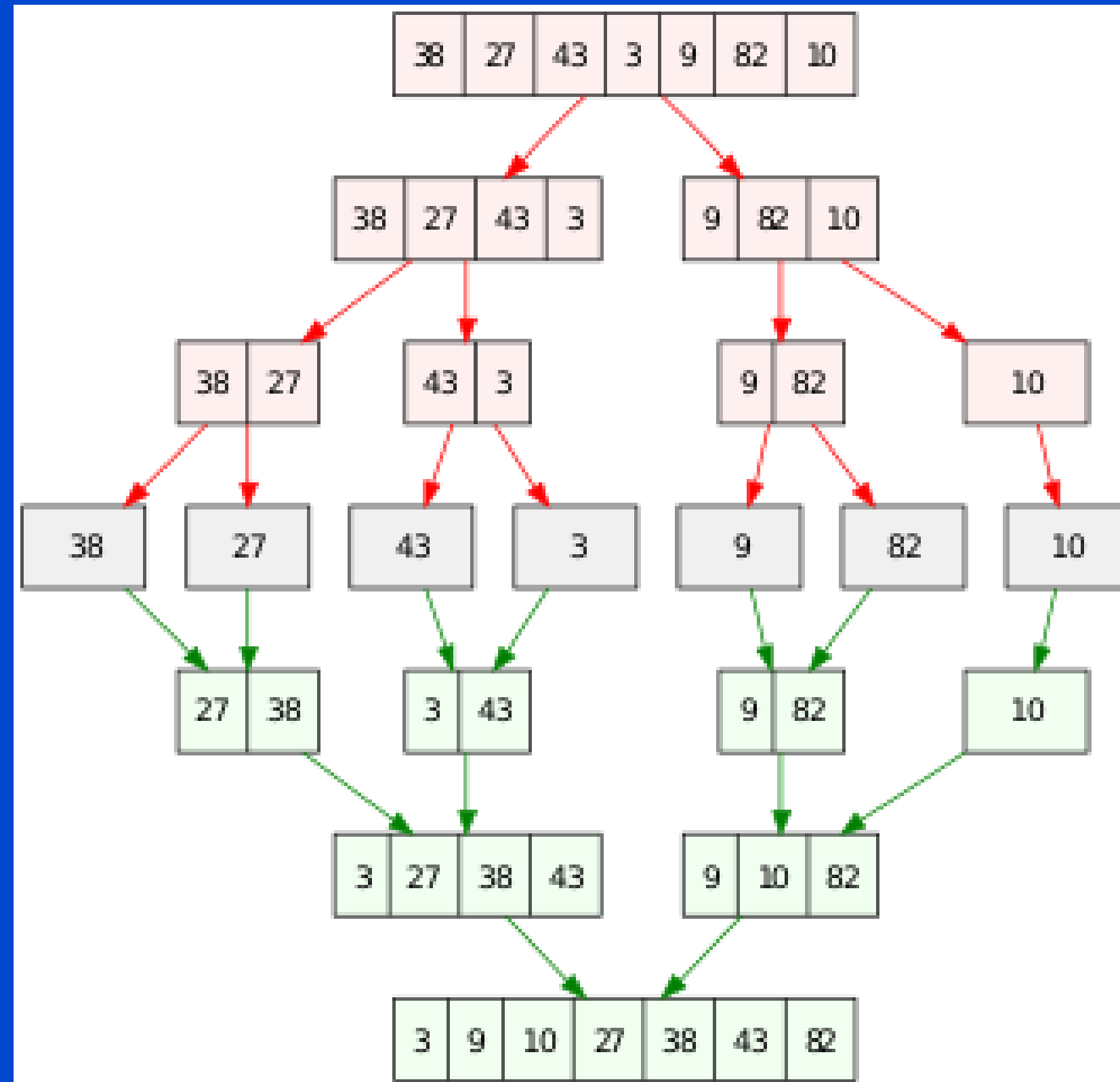
FLIGHTS TO INDIANAPOLIS



MERGE SORTING WITH ALGORITHM

- IT IS VERY SIMILIAR TO THE BUBBLE SORTING BUT WHEN IT COMES TO THE LARGE AMOUNT OF DATA IT IS VERY FASTER THAN BUBBLE SORTING.

MERGE SORTING WITH ALGORITHM



MERGE SORTING WITH ALGORITHM

2

4

1

5

9

3

JAVA Programming Language

JDK - JRE - JVM

JDK

development tools

JRE

libraries

+

+

JVM

FILE TYPES AND FILE EXTENSIONS