09 Feb, 2023

ASCII Table :

A = 65	a = 97
B = 66	b = 98
C = 67	c = 99
:	:
Z = 90	z = 122

https://upload.wikimedia.org/wikipedia/commons/thumb/1/1b/ASCII-Table-wide.svg/2560px-ASCII-Table-wide.svg.png

So each & every word / character of our Java code will be converted into equivalent ASCII code.
Maybe, u find it confusing, but a Java compiler understands it in the best.

How are images stored on computer?

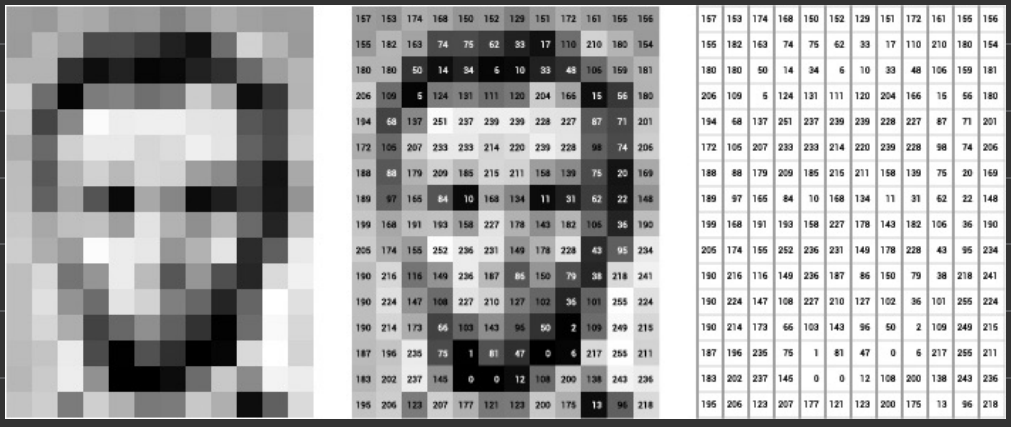
→ Pixel → Color → (R, G, B)

28 x 28

Pixel values, each b/w 0 – 255

0 → Black

255 → White



157	153	174	168	150	152	129	151	172	161	155	156
155	182	163	74	75	62	33	17	110	210	180	154
180	180	50	14	34	6	10	33	48	106	159	181
206	109	5	124	131	111	120	204	166	15	56	180
194	68	137	251	237	239	239	228	227	87	71	201
172	105	207	233	233	214	220	239	228	98	74	206
188	88	179	209	185	215	211	158	139	75	20	169
189	97	165	84	10	168	134	11	31	62	22	148
199	168	191	193	158	227	178	143	182	106	36	190
205	174	155	252	236	231	149	178	228	43	95	234
190	216	116	149	236	187	86	150	79	38	218	241
190	224	147	108	227	210	127	102	36	101	255	224
190	214	173	66	103	143	96	50	2	109	249	215
187	196	235	75	1	81	47	0	6	217	255	211
183	202	237	145	0	0	12	108	200	138	243	236
195	206	123	207	177	121	123	200	175	13	96	218

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206	109	5	124	131	111	120	204	166	15	56	180
194	68	137	251	237	239	239	228	227	87	71	201
172	105	207	233	233	214	220	239	228	98	74	206
188	88	179	209	185	215	211	158	139	75	20	169
189	97	165	84	10	168	134	11	31	62	22	148
199	168	191	193	158	227	178	143	182	106	36	190
205	174	155	252	236	231	149	178	228	43	95	234
190	216	116	149	236	187	86	150	79	38	218	241
190	224	147	108	227	210	127	102	36	101	255	224
190	214	173	66	103	143	96	50	2	109	249	215
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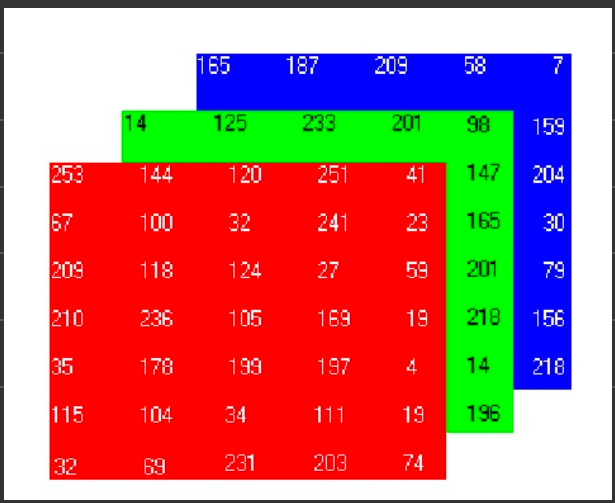


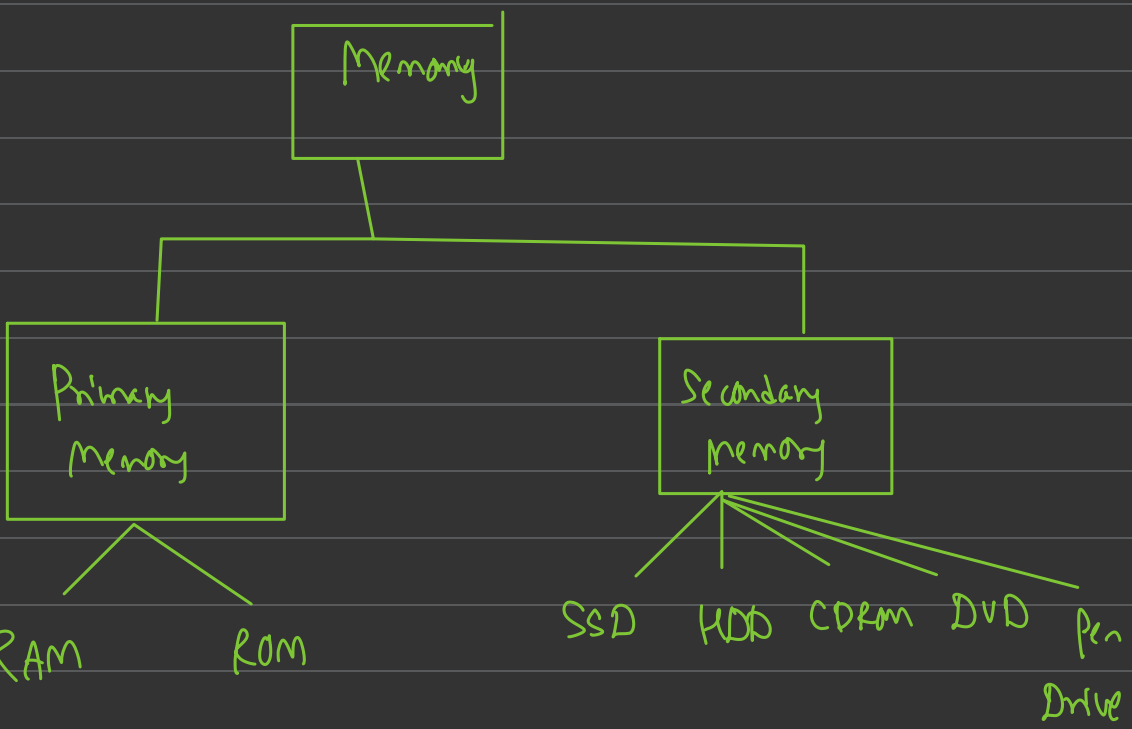
Computer Storage: Input → Process → Output

Store info?

Opt 1: Humans → Brain (Primary Memory)

But if info is huge, then who do we store it?

Opt 2: Paper / File / Document (Secondary Mem)



- Why do humans compute addn, subtraction?

→ Brain

- What is brain of the computer?

→ CPU

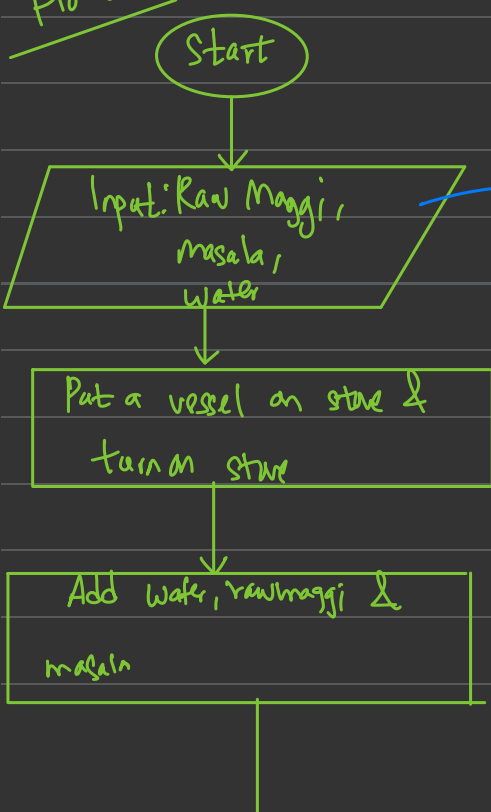
Inside CPU → ALU (arithmetic operations (like addn, subt, mult, etc.)

↓

all of these operations happen in Binary.

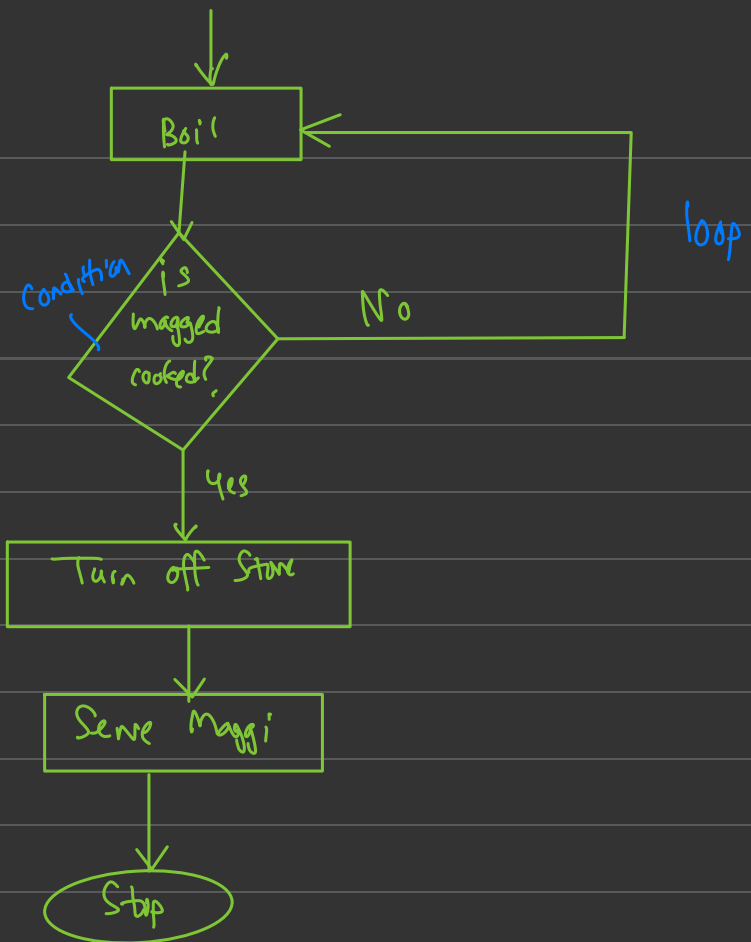
eg: How can I make Maggi?

Flowchart:



Algorithm:

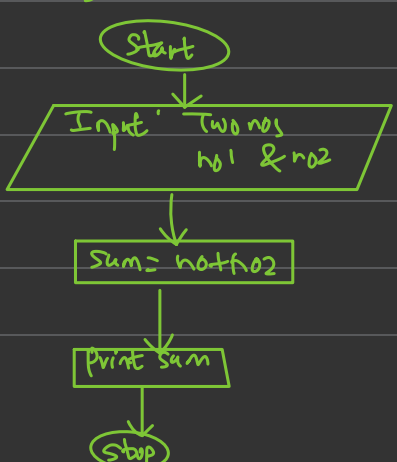
1. Start
2. Take raw maggi, masala & water
3. Turn on stove
4. Put a vessel on stove
5. Add water, & masala to vessel
6. While maggi is uncooked, do BOIL
7. Turn off Stove
8. Serve
9. Stop



eg: Write a pseudocode to add two numbers.

Soln:

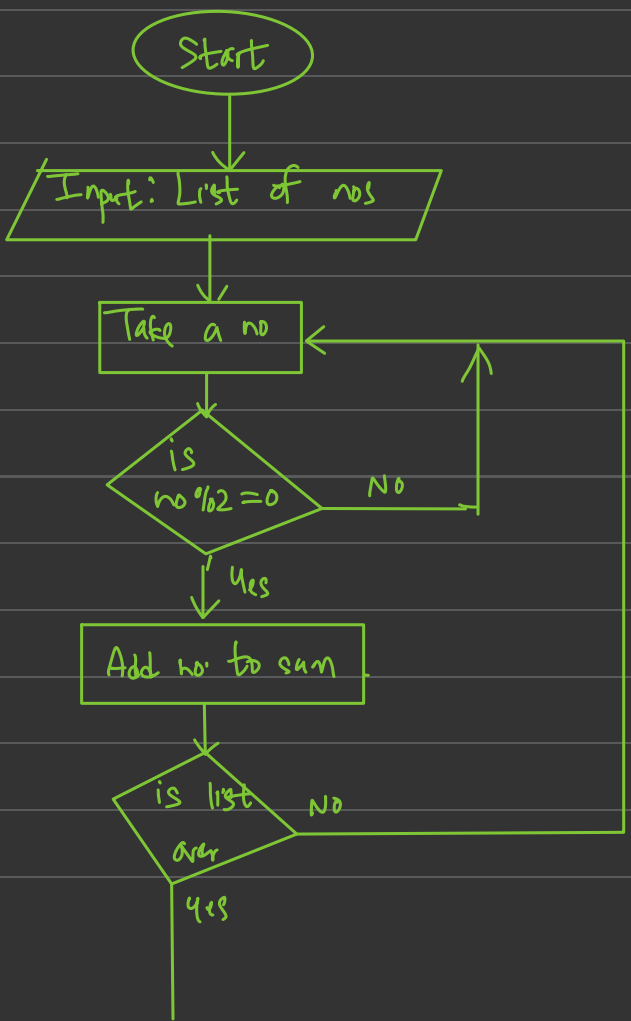
1. Start
2. Input 2 numbers
3. Calculate sum = no1 + no2
4. Print sum
5. Stop

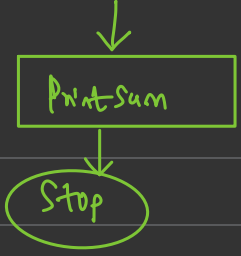


eg: Calculate sum of even numbers in a list.

[2, 12, 13, 3, 7, 6]

↳ 2+12+6 = 20





Homework:

1. Design a flowchart to bring icecream to your home. (Open ended problem, feel free to consider your possibilities - till they comfortably fit on paper).

2. Flowchart to add even nos & prints as 'sum' & multiply odd nos & print as 'mul'.

Assume you get the i/p in a list.

eg: [2, 4, 1, 7, 6, 30]

even = 2, 4, 6, 30 → 2+4+6+30 = 42

odd = 1, 7 → 1x7 = 7

Print sum = 42 mul = 7

X