Char

128 64 32 16 8 4 2 1

Representation Digit

byte

8-bits

Sign

+ -

0   1

Variables

Size   Type   name   Sign

int   unsinged int

2^{31} 2^0 2^{32} 2^0

int = bytes - 8 bits

4 bytes

4 × 8 = 32

Press A

keyboard

65

Processor

PC

Comparision

255 moving

Close

0

evening
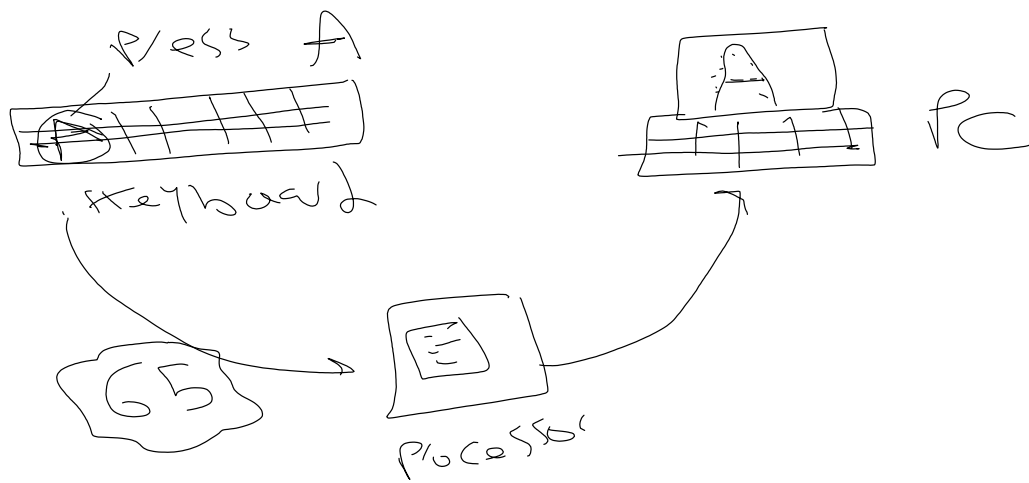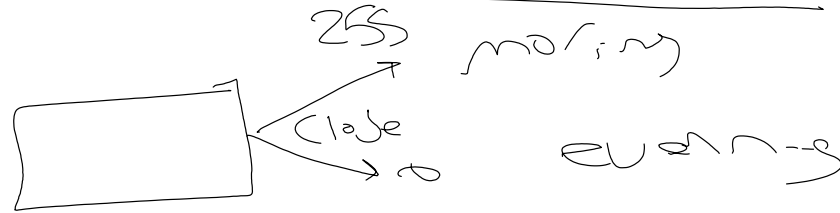
Garbage Value

The memory
Assign
a value
to you.

Declare
a Variable

String

char A → 65

128	64	32	16	8	4	2	1
0	1	0	0	0	0	0	1

byte 1
byte 2
byte 3
byte 4
byte 5

string = Ahmed
1 2 3 4 5

A
h
m
e
d

---

long term → harddrive
2T = 2000 giga

Ram
4,8 G

capitor

0 ←   → 1
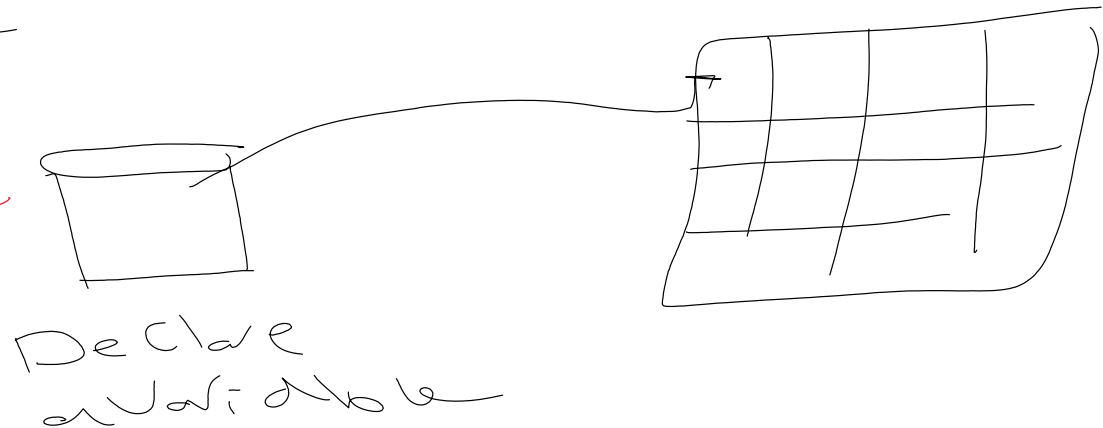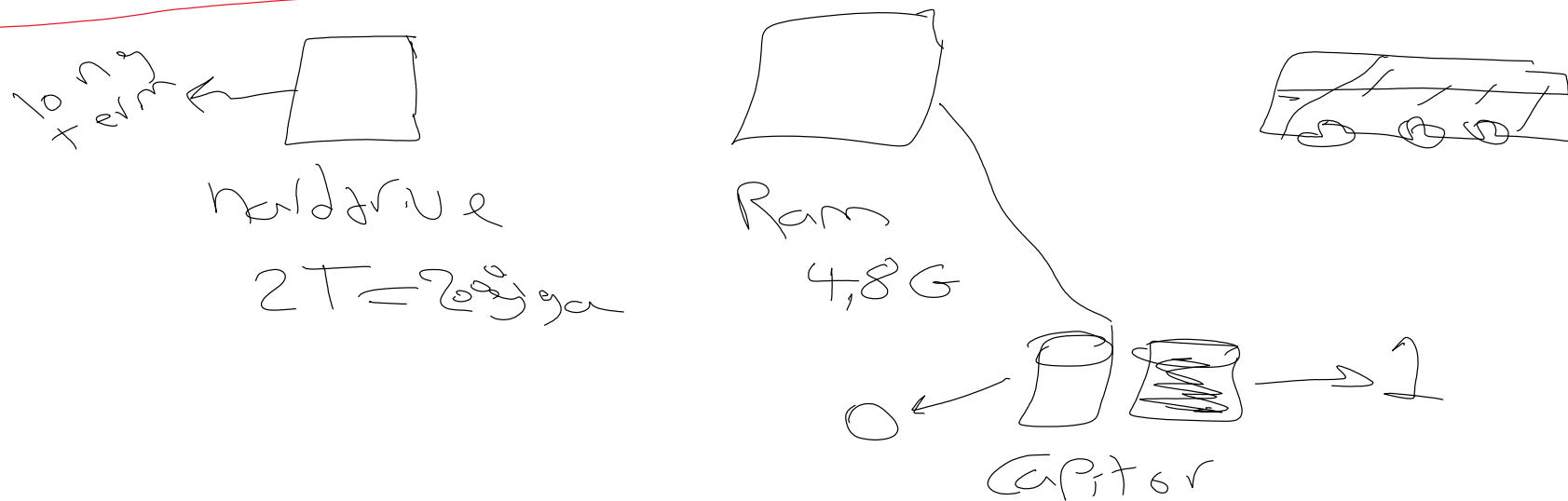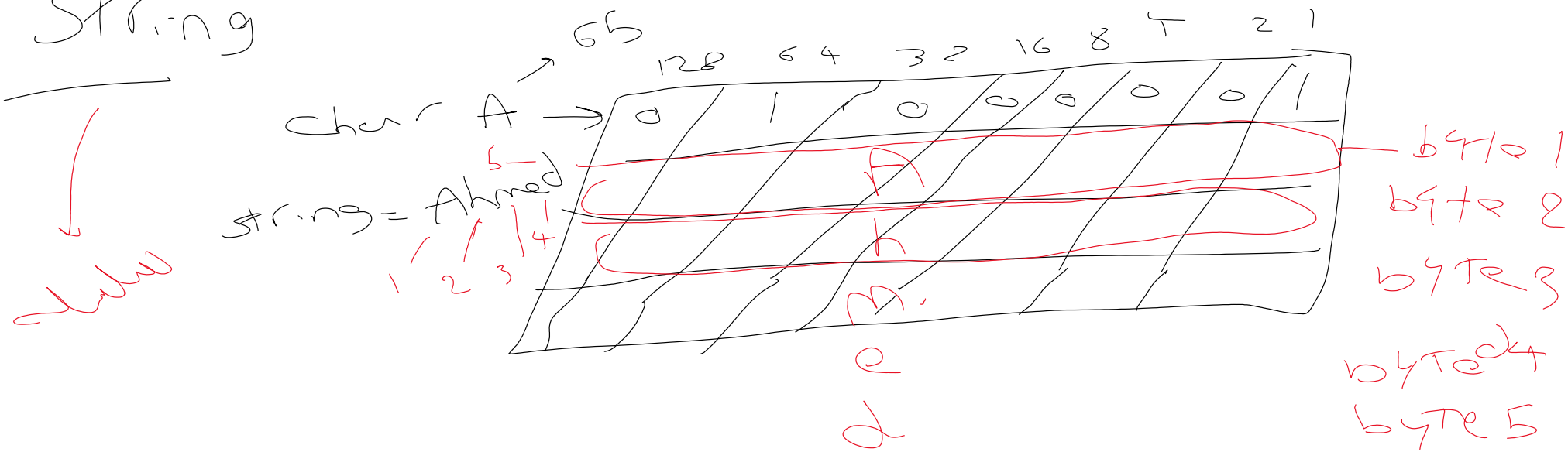
Computer can do two Thing: Speed Time

List

① 2o ARTHIMTIC oPe/ation (Calculations) ✓

② Store data ✓

Mathmatics Procedure

① ( )

② ✕ /

③ + —

```cpp
#include <iostream>
#include<string.h>
using namespace std;

int main()
{
    short employee_one=3000;
    short employee_two=6000;
    short employee_three=9000;

     short sum=employee_one+employee_two+employee_three;
     short avg=sum/3;
    cout<<"The total salary:"<<sum<<endl;
     cout<<"The avg salary:"<<avg<<endl;

}
```

main.cpp ✕

```cpp
1   #include <iostream>
2   #include<string.h>
3   using namespace std;
4
5   int main()
6   {
7       short item=15;
8
9       short item_14perecent=item+item*0.14;
10
11      cout<<item_14perecent;
12
13  }
14
```

```cpp
1    #include <iostream>
2    #include<cctype>
3    using namespace std;
4
5    int main()
6    {
7        char charachter='a';
8        cout<<char(toupper(charachter));
9
10   }
11
```

```cpp
#include <iostream>

using namespace std;

int main()
{
    char charachter='a';
    cout<<char(charachter-32)<<endl;

        char charachter='a';
    cout<<char(charachter-32)<<endl;

}
```

```cpp
/*
This app built for giving you your real age
Mohamed Essam Omar
mhmd96.esssam@gmail.com

*/


#include <iostream>

using namespace std;

int main()
{

  int birthdate;
  //Here I ask the user for input
  cout<<"Enter your birthdate"<<endl;
  cin >>birthdate;
  cout<<"My age is:"<<2022-birthdate<<endl;
}
```

Psedu Code = Algorithm in your lang...

↳ Breakt The Problem to sub Problems

EX =
① Create item variable. ✓
② Ask the user to input item price. ✓   Cashier
③ Calculate the new price. ✓
④ Print new price. ✓