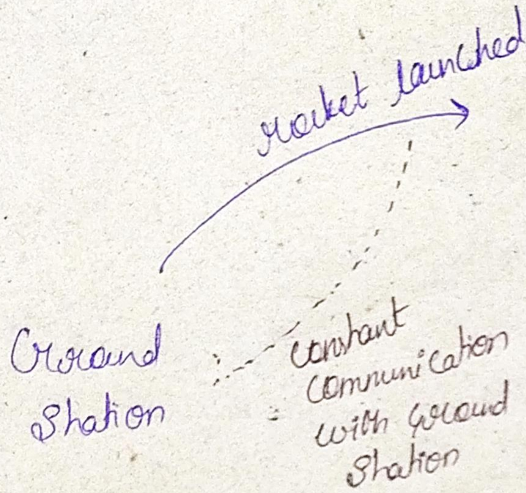
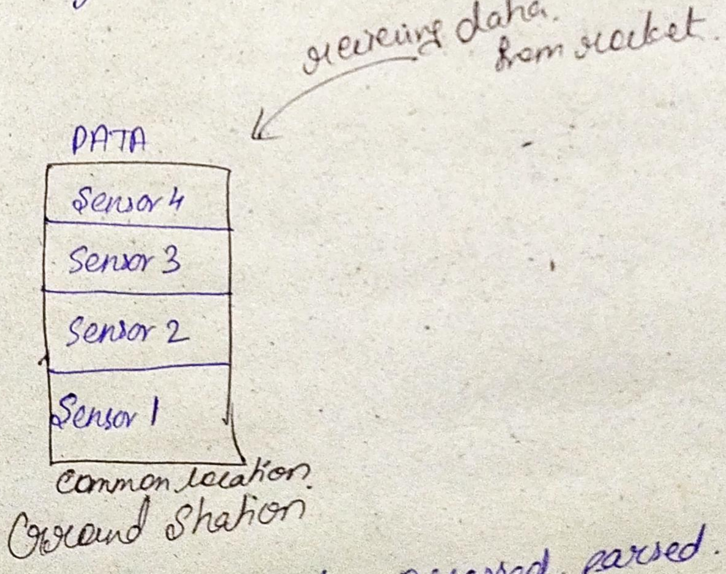
→ Here a rocket is launched from the Ground Station



* The sensor data ~~is recieved~~ of rocket is recieved by Ground station as per second.



This DATA can be accessed, parsed and consumed by two control tasks. and display screen

	Display
Sensor - 1	Temp -
sensor - 2	acc -
sensor - 3	GYRO -
sensor - 4	~~clusters~~ - thrusters

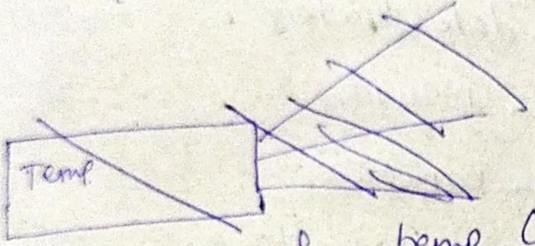
(i) Temp control-system Range should be (30 - 300).
By using rand() function.

(ii) Temp Thrusters range (-100 and +100)
using rand() function.

(iii) Accelerom range (20 - 20) rand()

(iv) Gyro - Rocket (0 - 360) rand()

Creating these ~~functions~~ client functions initially
using rand() function.

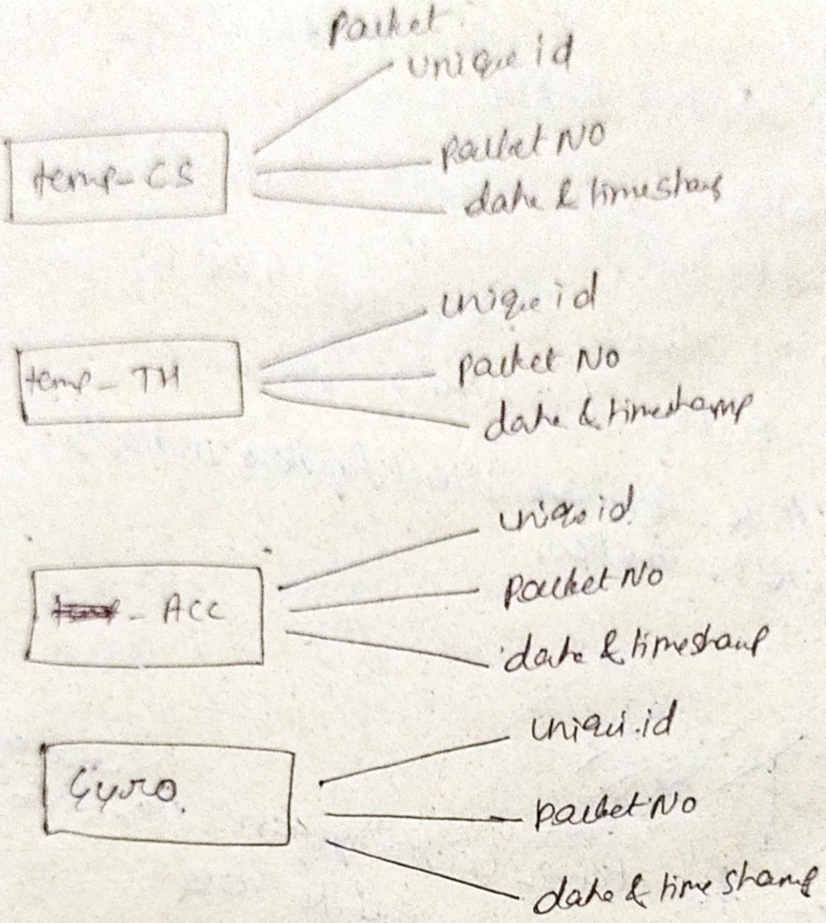


for Example:- for temp_Control system the random data can be generated between 30 to 300 by following code:-

Assuming 1 hr time. → 1 hr = 60 x 60 sec
= 3600 sec

So, there will be generation of 3600 random numbers. between 30 - 300.

```
int Temp_control system() {
        int number
        int lower_limit = 30;
        int upper _limit = 300; for( k=1, k<=3600, k++){
number = (rand() %(upper_limt - lower_limit) +1
                                            + lower
                                              limit;
        }
   printf(%d\n", number);
} return 0;
```



For handling data from client side

↳ Since the data is very large. we should array or linked list.

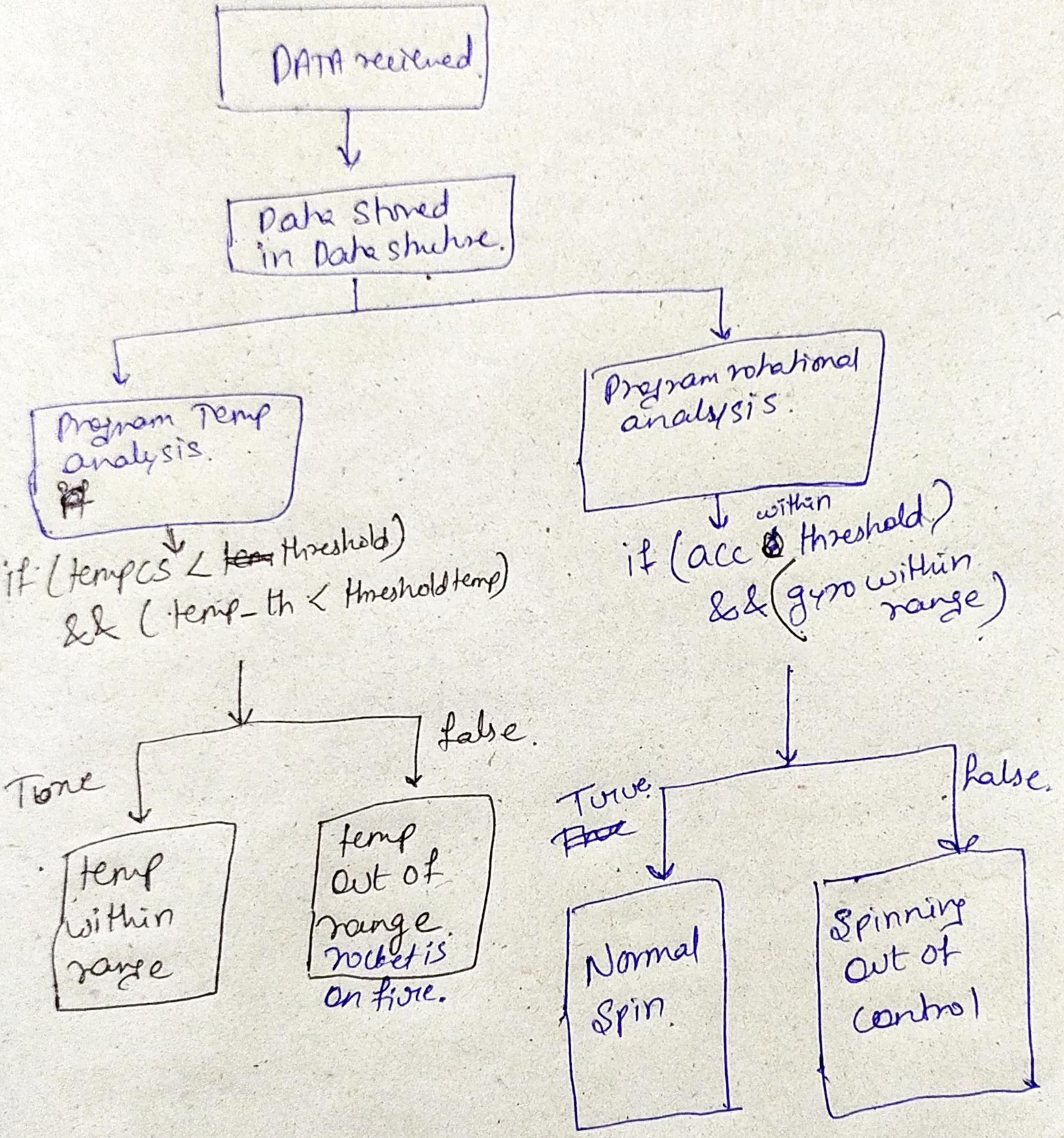
↳ TO release the previous memory we ~~a~~ can use free() function.

TO validate data shared we cando following:-

```
int tempreciened;
if (temperaturereciend < threshold temp)
  printf ("temp within range)
else.
  printf ("atleast temp crossed threshold);
```

Similer for ~~others~~ rotation

Client side flow chart.


DATA received
Data stored in Data structure.
Program Temp analysis.
Program rotational analysis.
if (tempcs < ~~tem~~ threshold)
&& (temp_th < thresholdtemp)
if (acc within threshold)
&& (gyro within range)
True
false.
temp within range
temp out of range rocket is on fire.
True
~~Fal~~
false.
Normal Spin.
Spinning out of control