Compiling And Executing the simulation:

In our case , the whole project is write in the Netbeans IDE and compiling and run their , so simply open the 4 projects in netbeans and start running one after an other.

(If we want to run our projects with cmd , when need to change how the registery is created and looked up in our code , but simply also we can).

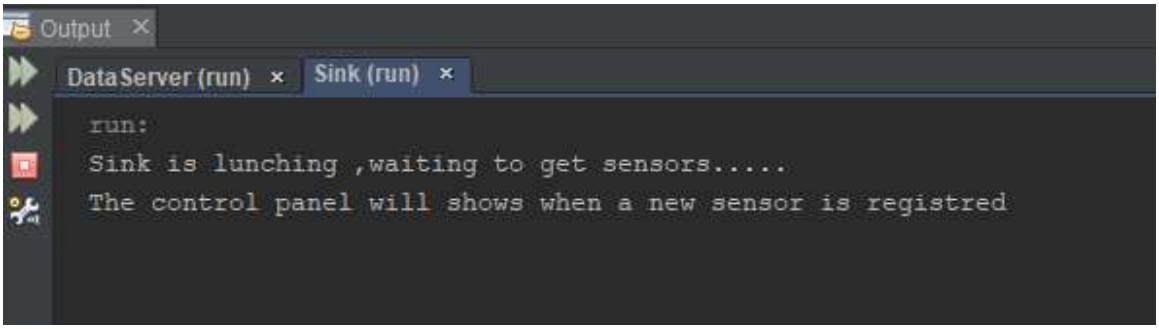
Order Of Executing :

1- **Run the DataServer first.**
2- **Then the Sink Project**
3- **Then the Supervisor sensor**
4- **Now we can start execute some sensors**

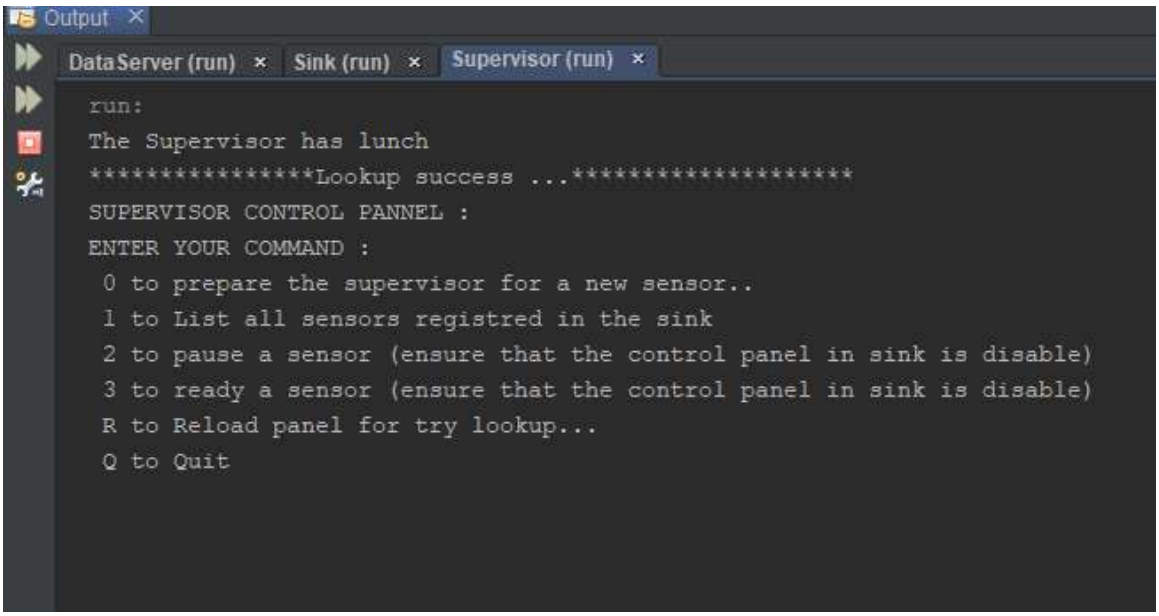
Rules Of Executing and some screenshots:

1- DataServer :
Just run it and it will be waiting for a new request from a sensor after.

2- Sink , after run , a message will be show up that the sink is running , but the control pannel will be disable till a new sensor come.

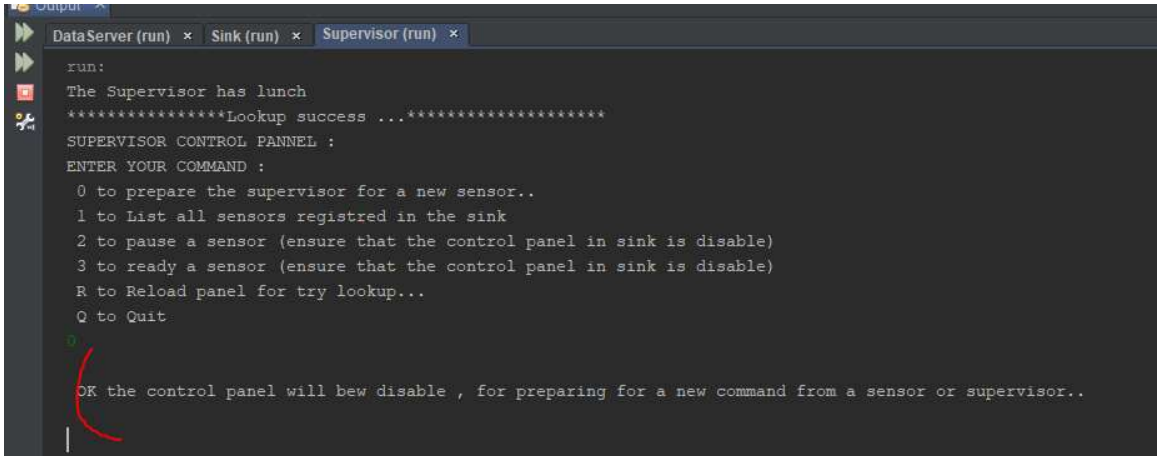


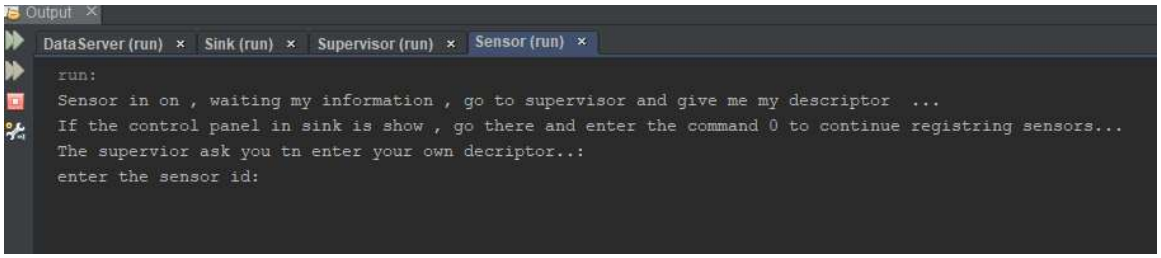
3- Supervisor : after the run of the supervisor , a message will be show up that the supervisor Is running , then the control pannel will be show up.



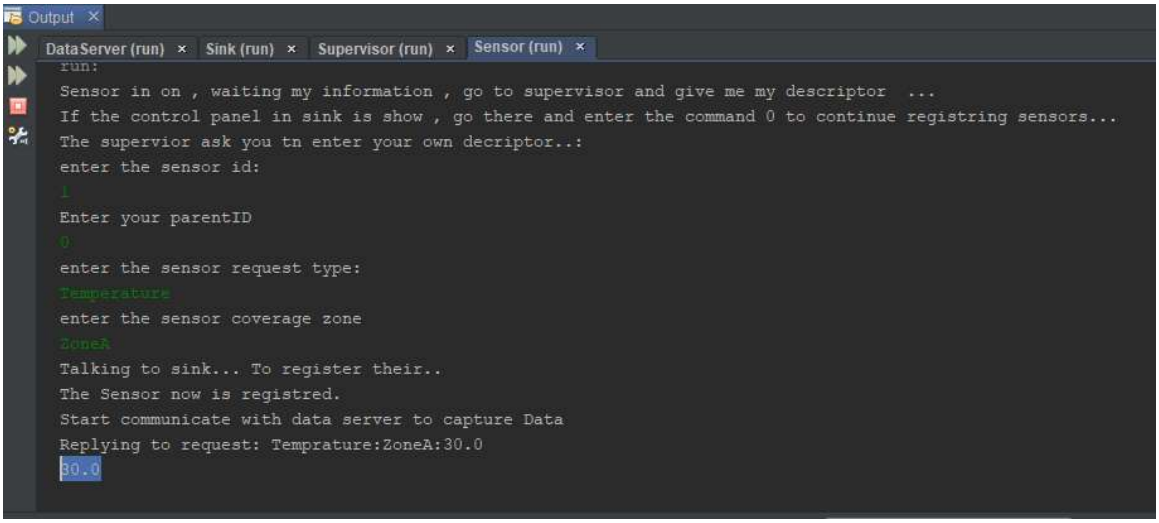
4- Now after the 3 machines are runnig and all conection has been opened a running , we can start lunching the sensor, run the sensorMain to start running a sensor:

But befor runnig a sensor , we need to click ‘0’ in the control pannel of the suppevisor or the sink to prepare them to start accepting the connection and the parametre of this new sensor.

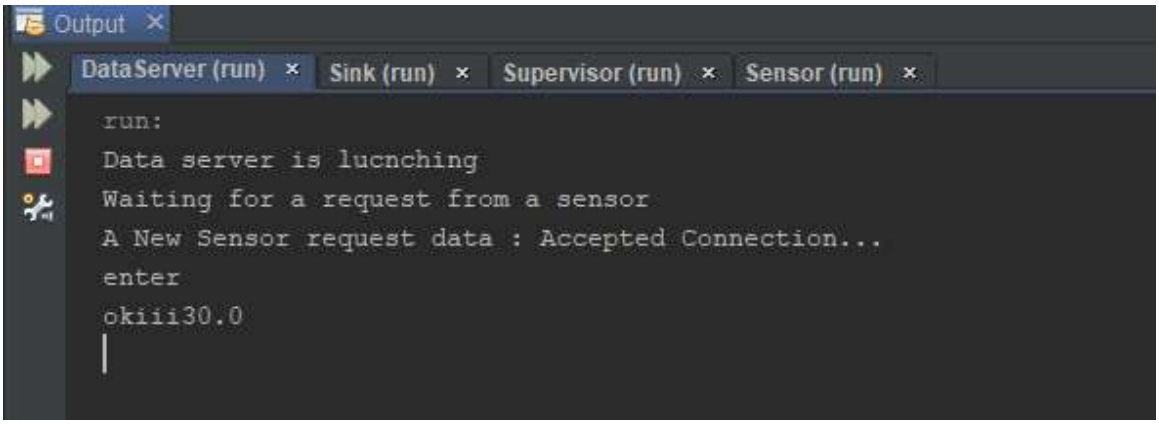




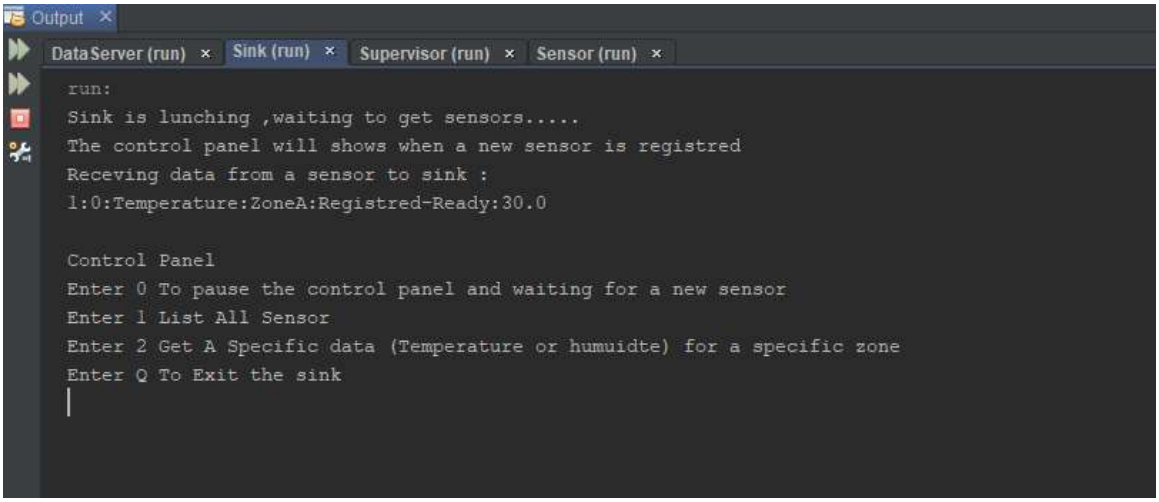
Now the sensor is on and the user start entering his information(zone/id/parentid/request type),



Now the sensot has all his informations including the result of the request type(temperature or humidity)
Now the sensor has finish his job .



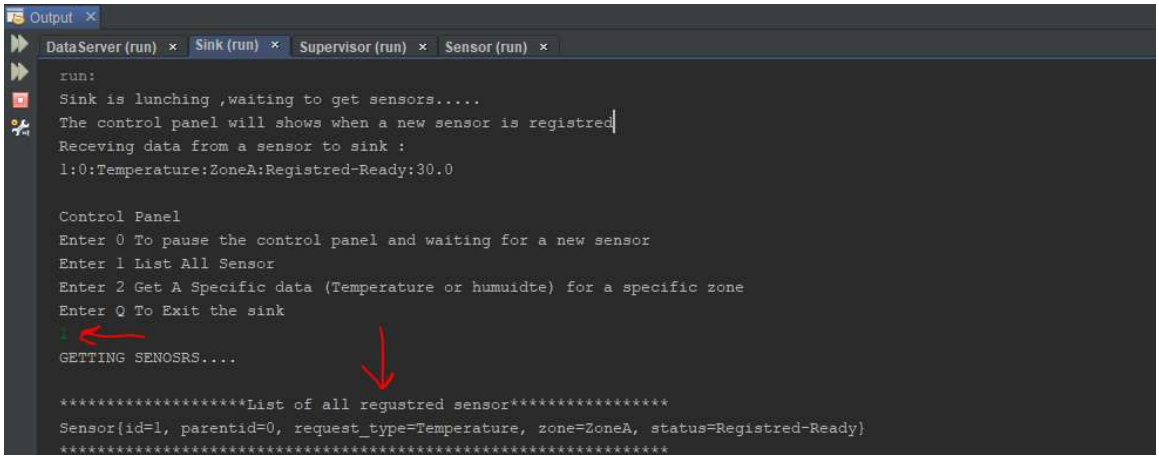
Here is how the dataserver show the value of requested type .



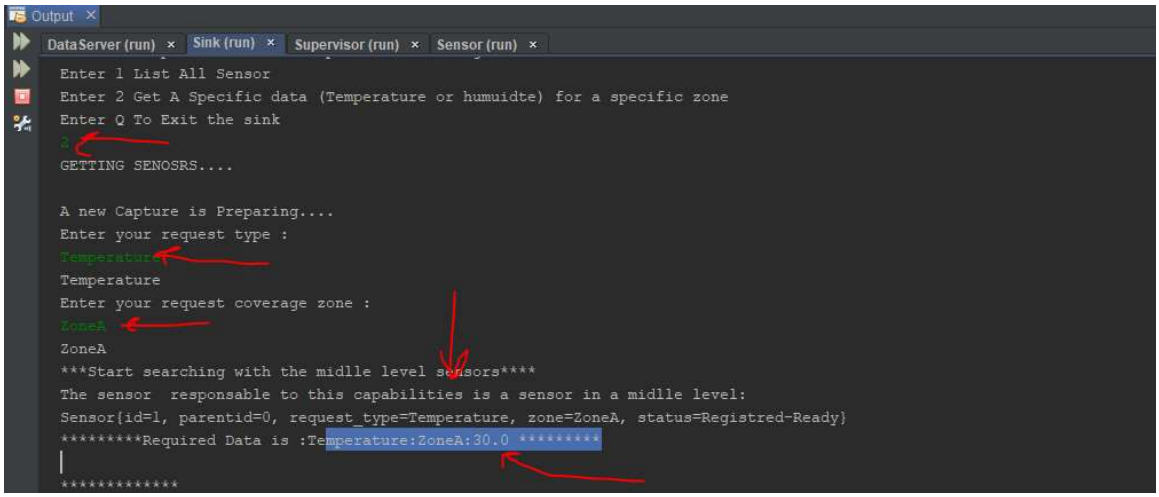
And here what the sink will showed (“Receving data from sensor”).

Now all machines are registred and waiting an order from the sink for a new capture or from the supervisor for a configuration.

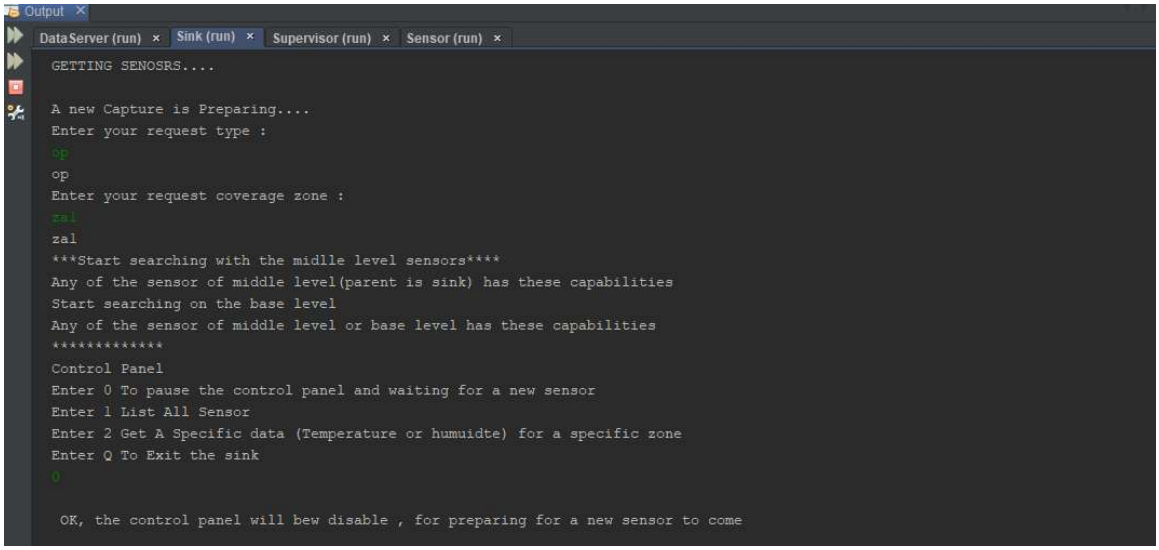
- Now in the sink , the control panel is showed including 4 command:
  1- ‘0’ to pause the sink so you can run a new sensor.
  2- ‘1’ to list all available sensors.
  3- ‘2’ to get or capture a specfic value for a zone and type.
  4- ‘Q’ to exit the sink (Stop runnnig…)



Example of command ‘1’.



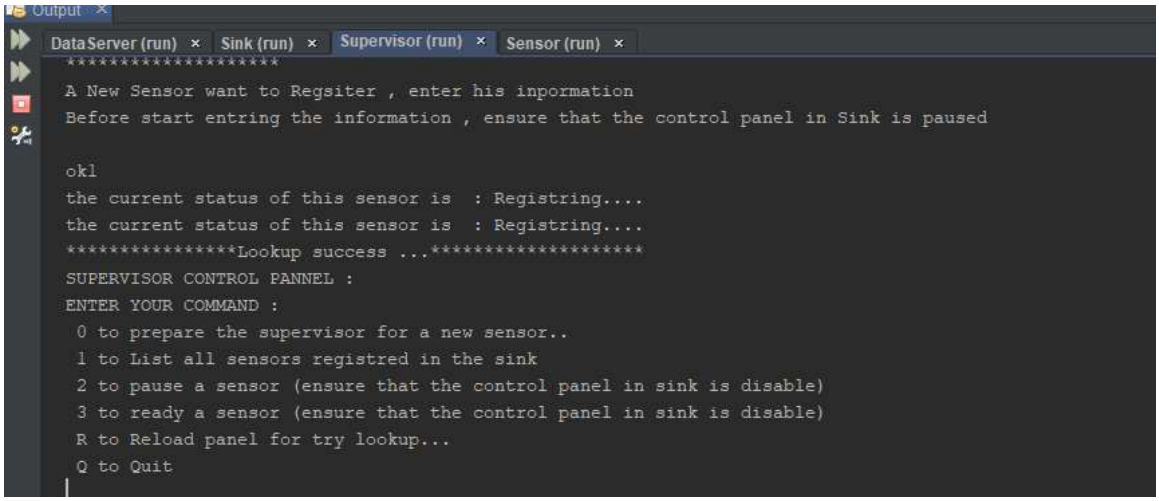
Example of command ‘2’



Example of command ‘0’

(for pausing the sink for a new sensor to come or for a command from the supervisor).

Supervisor run:



We have 6 commands in control pannel

0-to prepare a new sensor

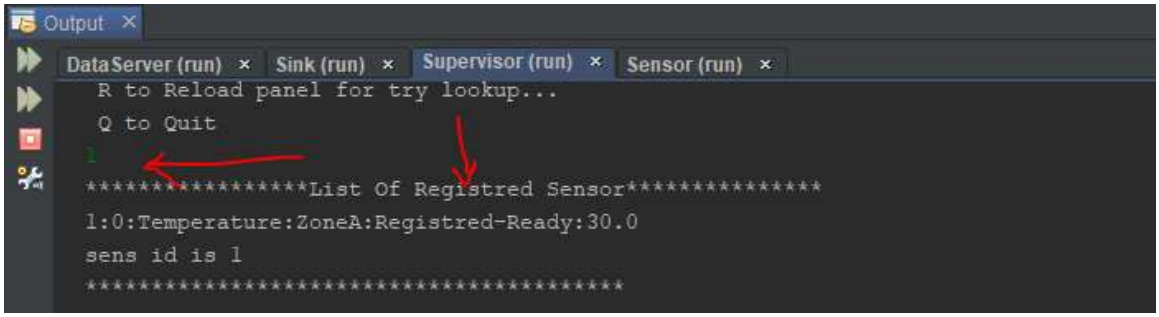
1-to list all sensors registred in the sink

2-to pause a specific sensor by its id (status=pause)

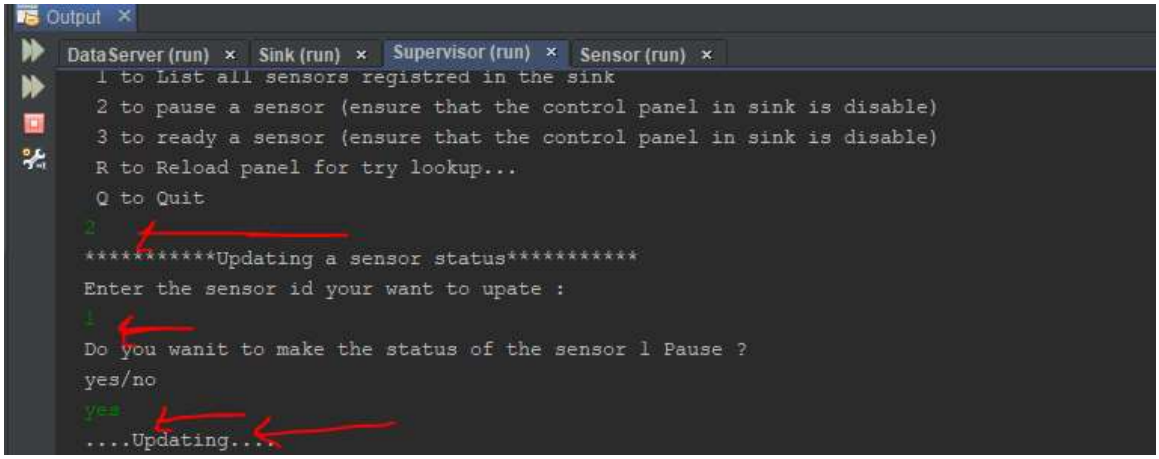
3-to ready a specific sensor by its id (status=ready)

R-to reload panel for try lookup

Q-to exit the supervisor

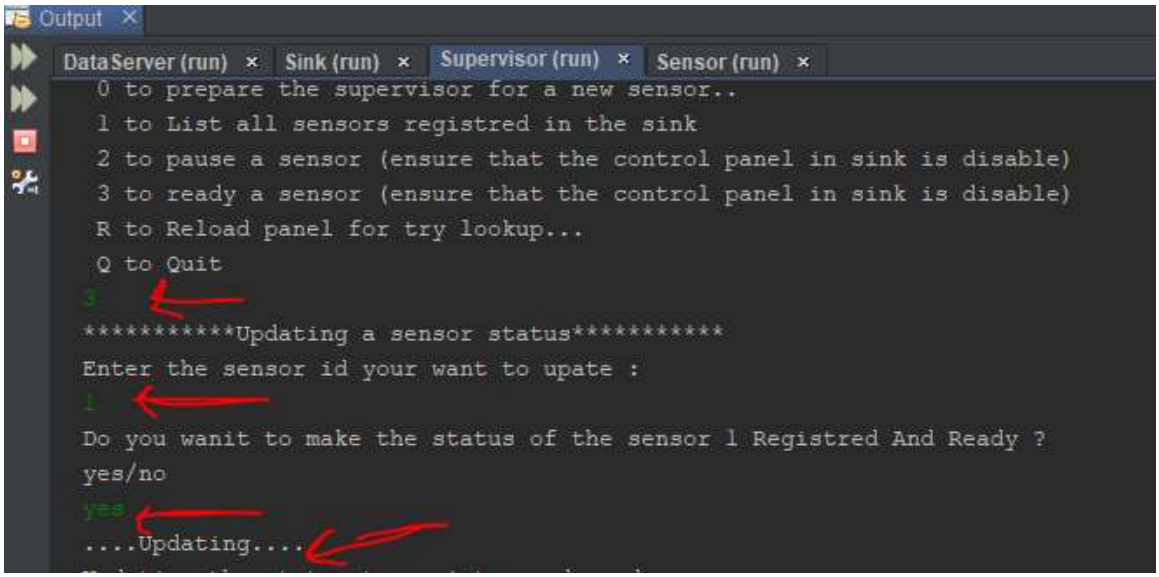


Example for command 1



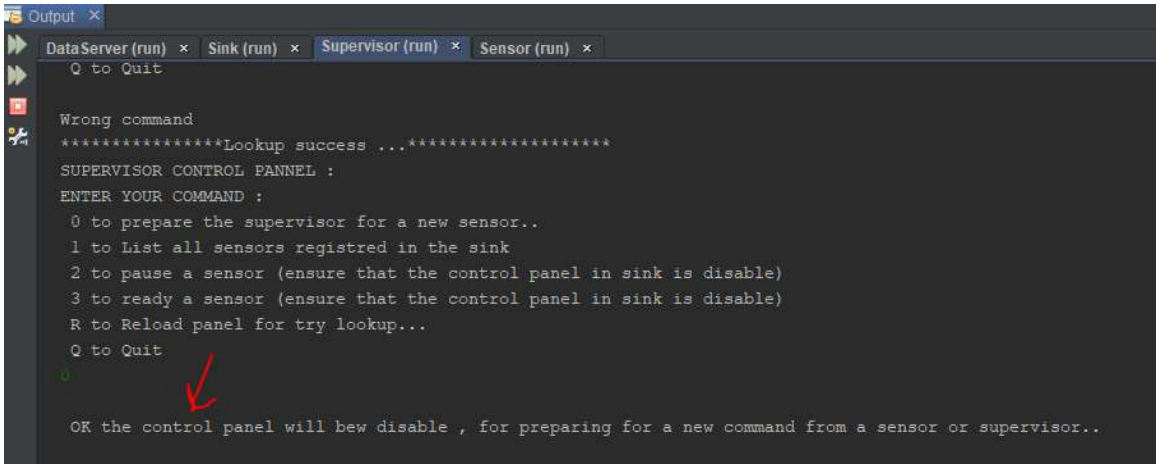
Example for command 2:Status=pause

He ask to enter id and to affirm the updating we should enter yes or no .



Example for cammand 3:status=ready

He ask the id of sensor and to affirm we should enter yes or no.



Example for command 0

To prepare a new sensor.

NB:When we update the status of the sensor,in the supervisor , the sink track these command: