SMART WEATHER M0NITORING SYSTEM

1.INTRODUCTION:

*****OVERVIEW:**
The Project is about "Smart Weather Monitoring System Using IoT".It comes under the category of "Internet Of Things".The main Objective of this project is to setup a monitoring system,with the help of **IoT Online Simulator.**

*****PURPOSE:**
The Above Project is used to create a Smart Weather Monitoring System .It helps people with efficient information with respect to Temperature,humidity and ObjTemperature at any time and any where when you need it.

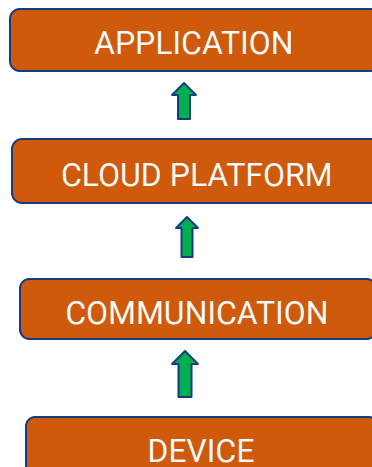**2.LITERATURE-SURVEY:**

*****EXISTING-PROBLEM:**
A cost effective solution for more effective "Smart Weather Monitoring System".

*****PROPOSED-SOLUTION:**
It is built using IOT Open Hardware Platforms.

3.THEORITICAL-ANALYSIS:
*****BLOCK-DIAGRAM:***These are the following steps involved in IOT App Developing.*

APPLICATION

⬆

CLOUD PLATFORM

⬆

COMMUNICATION

⬆

DEVICE

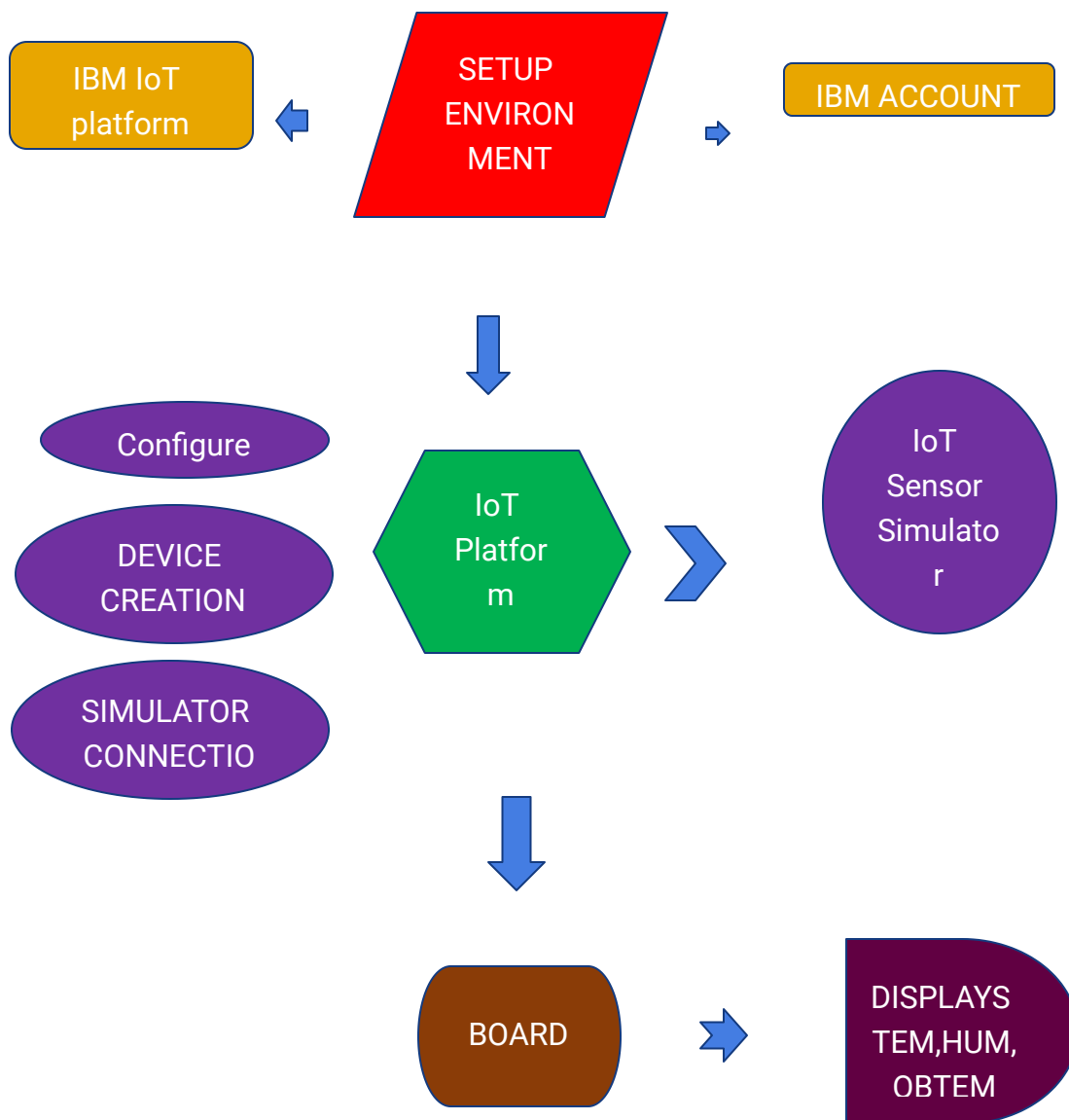*******HARDWARE/SOFTWARE-DESIGNING:**

----->_IBM Cloud platform_

----->_IBM Watson Iot Platform_

----->_IoT Sensor Simulator_

4.EXPERIMENTAL-INVESTIGATIONS:_Investigations are performed on "Smart Weather Monitoring System" and performance is satisfied._

5.FLOWCHART:

| IBM IoT platform | ⬅ | SETUP ENVIRON MENT | ➡ | IBM ACCOUNT |

Configure

DEVICE CREATION

SIMULATOR CONNECTIO

IoT Platfor m ➤ IoT Sensor Simulato r

BOARD ➡ DISPLAYS TEM,HUM, OBTEM

6.RESULT:

----->_Creating accounts in IBM Cloud Platform._

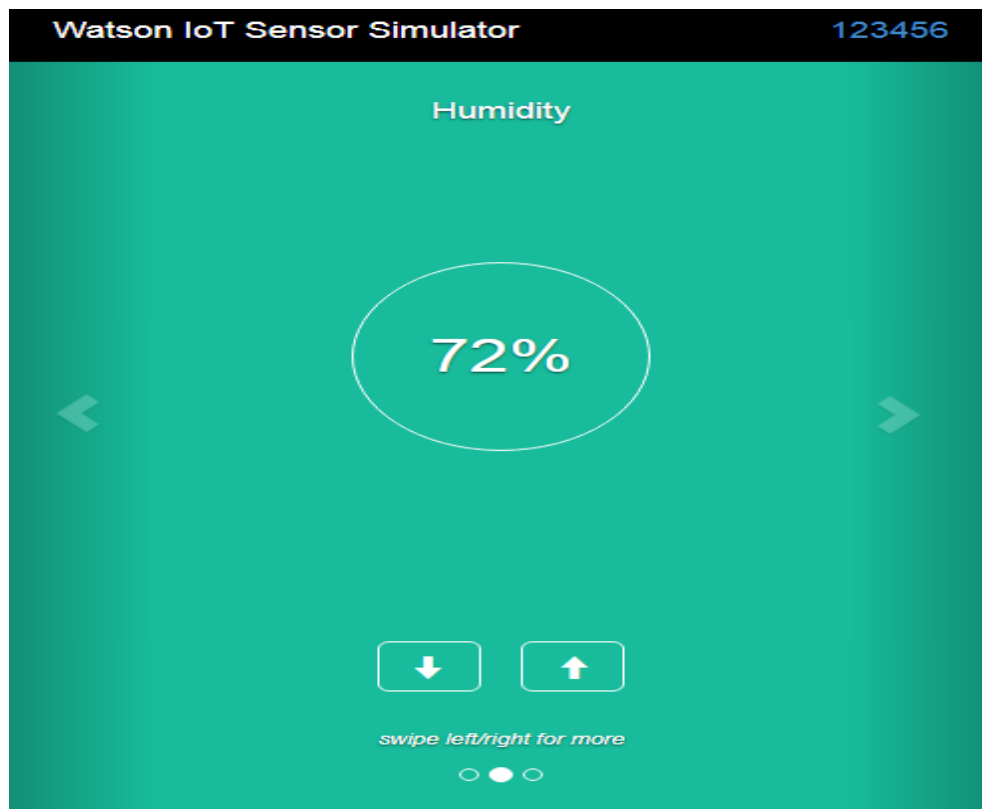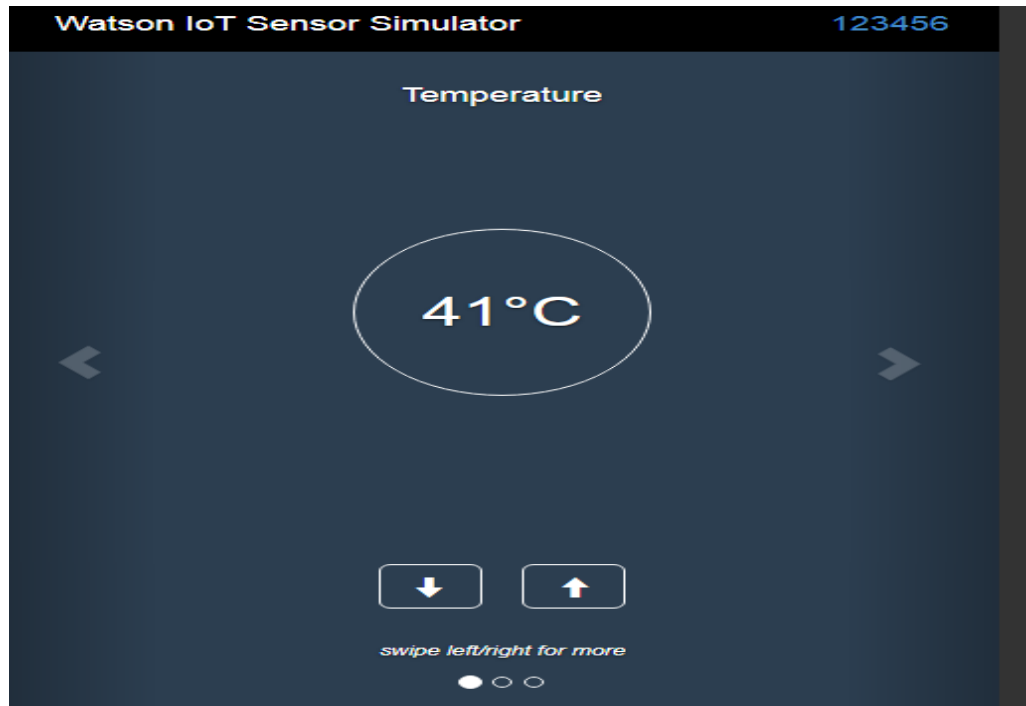**----->**_Creating a IBM IoT Platform and a Device ,which manages the flow of values._

Q Search by Device ID   Device Simulator ⬤

	Device ID	Status	Device Type	Class ID	Date Added	
∨ ☐	123456	● Connected	raspberrypi	Device	Jul 16, 2020 7:48 PM	→ •••

Identity   Device Information   Recent Events   State   Logs   ✕

The recent events listed show the live stream of data that is coming and going from this device.

Event	Value	Format	Last Received
iotsensor	{"d":{"name":"123456","temperature":41,"humi...	json	a few seconds ago
iotsensor	{"d":{"name":"123456","temperature":41,"humi...	json	a few seconds ago
iotsensor	{"d":{"name":"123456","temperature":41,"humi...	json	a few seconds ago

----->*Connecting the IoT Online Simulator to the Device created in IOT platform.*

Watson IoT Sensor Simulator   123456

Temperature

41°C

swipe left/right for more

Watson IoT Sensor Simulator   123456

Humidity

72%

swipe left/right for more
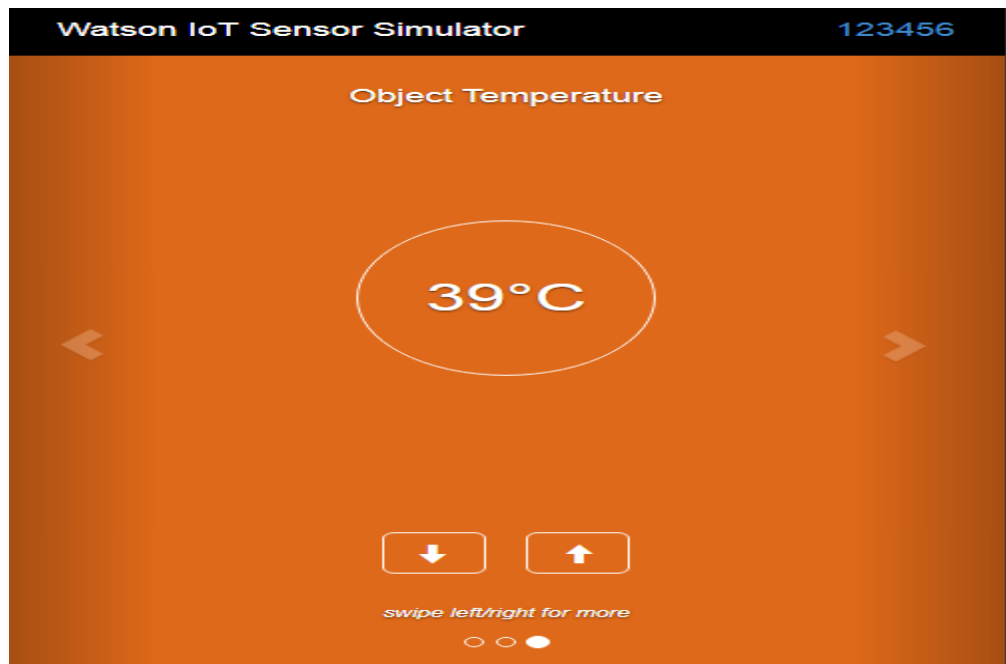
-----> *Creating a Board ,which displays Temperature,Humidity and ObjTemperature.*
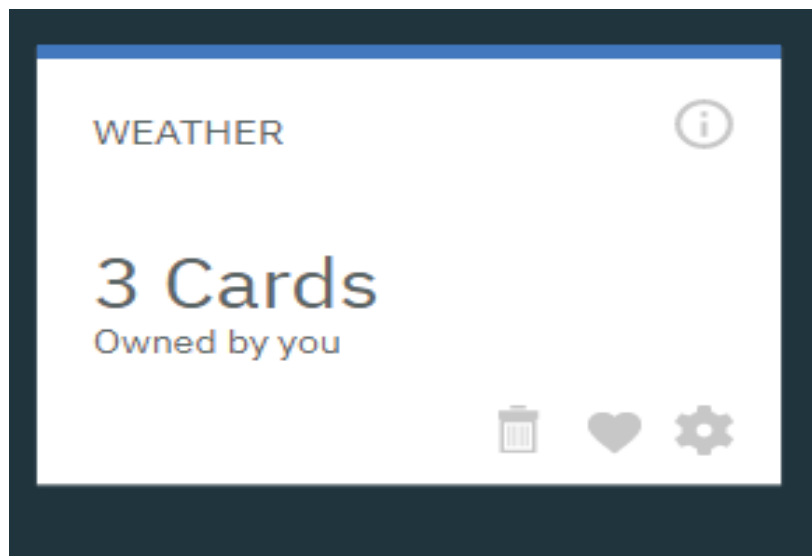
----->_Creating Cards for Temperature,Humidity and ObjTemperature separately with different formats._
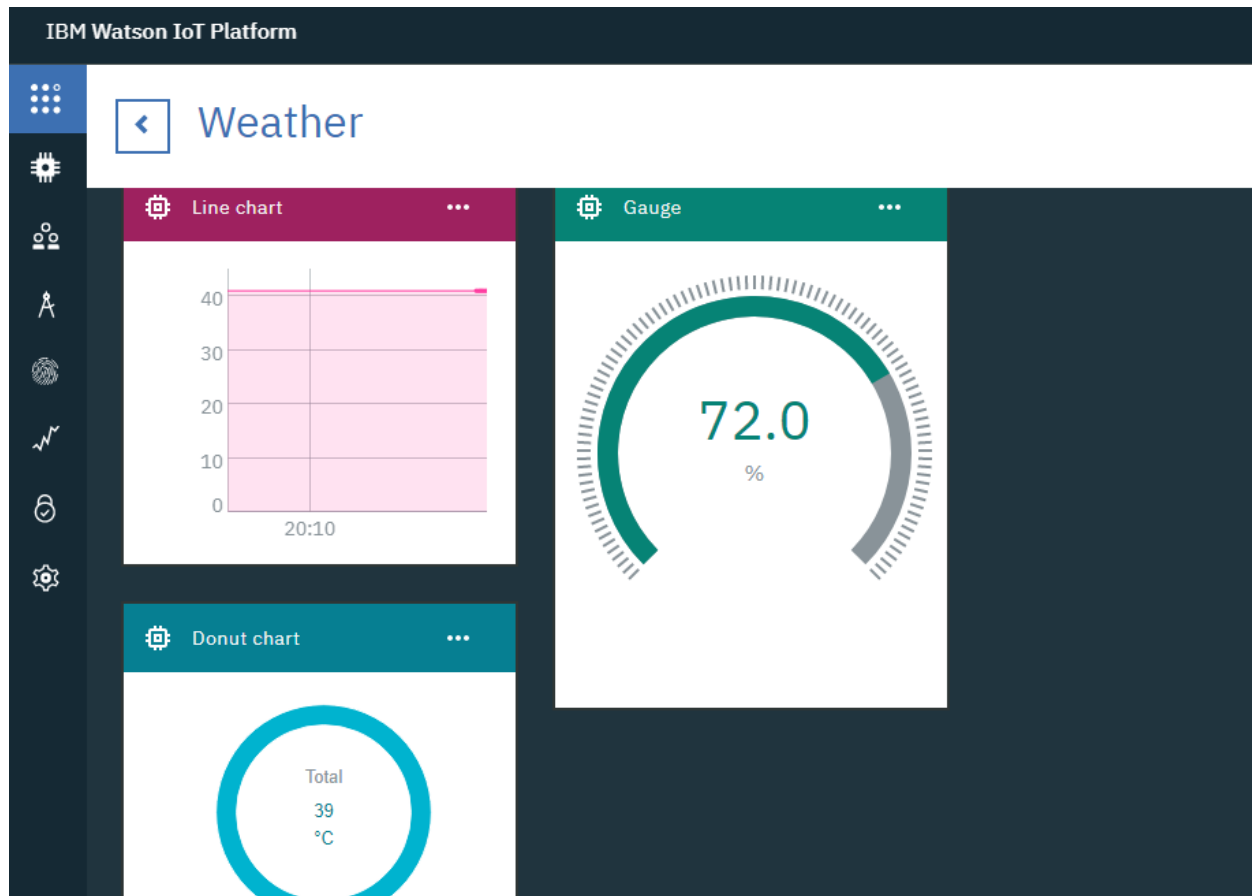
 7.ADVANTAGES &DISADVANTAGES:

*****ADVANTAGES:
----->_High Reliability_
----->_Safety Enhancement_
----->_Cost Reduction_
----->_Improved Customer Engagement_

*****DISADVANTAGES:
----->_Sometimes Slow due to Internet Connectivity_
----->_Make Sure that your Simulator is always connected to the IoT platform Device._

8.APPLICATIONS:

----->_Very Useful for Farmers ,in deciding which Crop has to be Yielded._

----->_Used in weather Forecasting Sector ._

----->_Used to know the fertility of the soil._

----->_Used in Open API._

9.CONCLUSION:

----->_This system can be accessible anytime for effective customer engagement._

----->_This project provides a flexible attribute for customer satisfaction with "Smart Weather Monitoring System"._

10.FUTURE_SCOPE:

----->_It can be used in Future Alerts._

----->_It can be used in Real Time Data Collection._

----->_It can be used in Scheduling Events._

----->_It can be used in GeoLocation Data._

11.BIBILOGRAPHY:

GITHUB ACCOUNT(UPLOADED ScreenShots)

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