

## Assignment 1 -- Project Proposal

### Topic: Digital Weather Helper

#### Student Information – Team 11

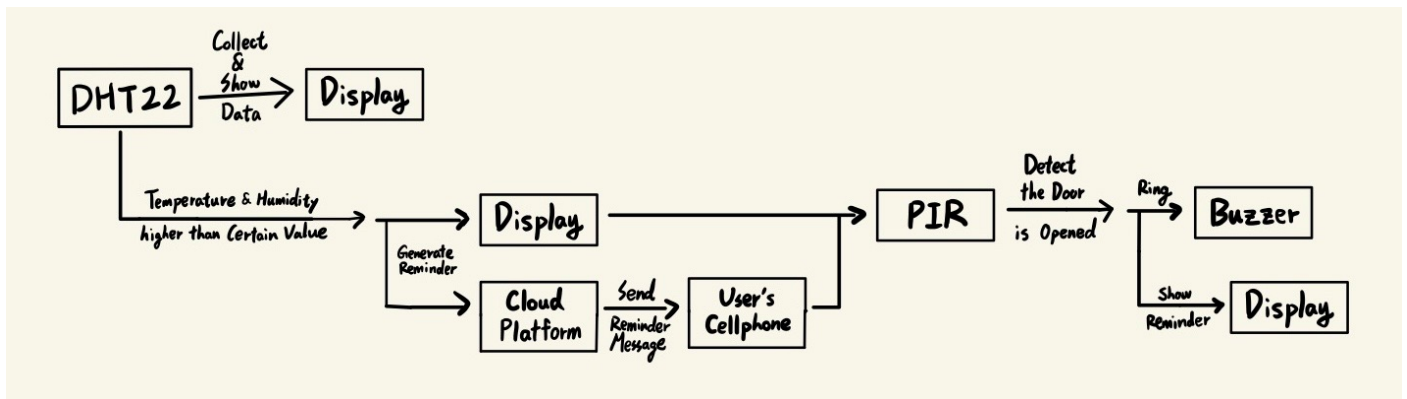
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#### Objectives

- Collect sensors' data for predicting weather
- Use IoT devices to remind users from leaving their necessity at home.
- Combine cloud platform to increase data readability and accessibility.

#### Project Description

- ♦ The project aims to convert raw data into daily reminder. With temperature and humidity acquiring from DHT22, the Display will show the weather data on it. While temperature and humidity reaching certain level, the cloud platform will send Message to user's cellphone, reminding him / her should bring their coat / umbrella with them. As a final reminder, the PIR will be placed by the door. If anyone open the door, the PIR will tell Buzzer to ring with the Display showing the reminder messages on it.



#### Sensor and Actuator

- Sensors
  - DHT22 -> for Temperature and Humidity
  - PIR -> for Motion Detection
- Actuator
  - Buzzer -> for Reminding Users
  - Display -> for Displaying Data

#### Assignment Specs

- Assignment 1
  - Environment setup
  - Read & Write data from sensors to actuators.
- Assignment 2
  - Choose a Cloud Platform to implement the design.
  - Send recorded data to the Cloud.
  - Choose and test message sending function.
- Assignment 3
  - Integrate Assignment 1 & 2
  - Complete the final model