Group name: GreenHouse
Group number: 13
Group members: Olivia Dorencz, Qian Zhang, Kiahna Tucker, Laura Morgan, Hok Yin Shum
Testing time: 3:30pm; Thursday, February 28, 2018

Testing Plan:

Equipment Used: Nodemcu, two DHT11 sensors, two soil moisture, tissues, heating gun
Setup:

1. Hardware

    a. Show the current structure state: the bottom box is built out of 2in x 10in x 12ft treated lumber and plywood. The frame has been constructed using 1-½ in pvc pipe and various pvc pipe joints.

    b. Display the fully constructed heating pad: an incandescent rope light looped between five 1in x 1.5in x 1.5ft pine furring strips on a 0.75in x 2ft x 2ft BC plywood base.

    c. Demonstrate the successful illumination of the heating pad when plugged into a standard wall outlet.

2. Software

    a. Demonstrate the connection between nodemcu and AWS IOT by showing the collected data on the shadow update page
    b. Display the DynamoDB database, all the data from nodemcu is stored here.
    c. Test DHT sensors:
        i. Use heating gun to heat up one of the temperature sensors, show the increasing temperature and a warning message is sent to the subscribed mailbox
        ii. Breath to the other temperature sensors, show the increasing humidity
    d. Test Soil moisture sensors:
        i. Wrap the soil moisture sensor with wet tissue, show the increasing soil moisture percentage.
        ii. Wrap the soil moisture sensor with half-wet tissue, show the increasing soil moisture percentage.
    e. While doing all the steps above, simultaneously demonstrate the successful plotting of sample data retrieved from DynamoDB and the web application's UI.