Programming Assignment: Using the IoT APIs in a Bluemix application

You have not submitted. You must earn 2/2 points to pass.

Deadline Pass this assignment by August 21, 11:59 PM PDT

Instructions

My submission

Discussions

Assignment goals

This assignment builds on the experience from lesson 3. Instead of using NodeRED, we will create a Node.js-based application that uses the IoT Foundation APIs. The application will run on Bluemix to receive temperature data from the SenseHAT device and issue commands when the threshold is crossed.

How to complete the assignment

Create a Bluemix application using the Node.js buildpack. Use the attached skeleton for this lesson as a starting point. Remember to edit the manifest.yml by adjusting the name and host property. You may also copy the manifest from a Bluemix starter application.

Before submitting your solution, in order to obtain the credentials to the IoT platform service, you should use the VCAP_SERVICES environment variable. The grader environment has a service called "iotf-service" that you can extract them from.

bluemix-app-skeleton.zip

In server.js, implement an express application that connects to IoT Platform with the Node.js API for application developers. In service.js, create the control code for the SenseHAT device. Register for device events and keep track of temperature changes. If the temperature rises above or falls below the threshold of 29C, issue a device command to turn the warning on or off. The relevant sections in the skeleton are commented as “TODO”. Please stick to “display” as the command name and use the same JSON payload as in the previous lesson: { "screen": "off" } and {"screen": "on" }.

What to submit

Submit your server.js as assignment6.js and your service.js as assignment7.js. Make sure to follow the skeleton code, as the grader uses the defined APIs to test your code. Note that the grader will not install new packages—you are limited to the ones listed in the skeleton's package.json.

How to submit

When you're ready to submit, you can upload files for each part of the assignment on the "My submission" tab.