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  license information.
3
4 import random
5 import time
6 from sensor import SHT20
7
8 # Using the Python Device SDK for IoT Hub:
9 #   https://github.com/Azure/azure-iot-sdk-python
10 # The sample connects to a device-specific MQTT endpoint on your IoT Hub.
11 from azure.iot.device import IoTHubDeviceClient, Message
12
13 # The device connection string to authenticate the device with your IoT hub.
14 # Using the Azure CLI:
15 # az iot hub device-identity show-connection-string --hub-name {YourIoTHubName} --
  device-id MyNodeDevice --output table
16 CONNECTION_STRING = "HostName=ucliotproject.azure-
  devices.net;DeviceId=sensorsql;SharedAccessKey=2Y3cIJNZAXsR4nu0SVE+fUy1MuXwtizbe0sdVI
  d1CsE="
17
18 #Sensor info
19
20 sht = SHT20(1, 0x40)
21
22 # Define the JSON message to send to IoT Hub.
23
24 MSG_TXT = '{{"temperature": {temperature},"humidity": {humidity}}}'
25
26 # Code for connecting to AZURE Cloud services
27
28 def iothub_client_init():
29     # Create an IoT Hub client
30     client = IoTHubDeviceClient.create_from_connection_string(CONNECTION_STRING)
31     return client
32
33 def iothub_client_telemetry_sample_run():
34
35     try:
36         client = iothub_client_init()
37         print ( "IoT Hub device sending periodic messages, press Ctrl-C to exit" )
38         while True:
39             TEMPERATURE = sht.temperature()
40             HUMIDITY = sht.humidity()
41             temperature = TEMPERATURE.C
42             humidity = HUMIDITY.RH
43             msg_txt_formatted = MSG_TXT.format(temperature=temperature,
  humidity=humidity)
44             message = Message(msg_txt_formatted)
45
46             # Add a custom application property to the message.
47             # Displaying the temperature and humidity data
48             message.custom_properties["temperature"] = temperature
49             message.custom_properties["humidity"] = humidity
50
51             if temperature > 30:
52                 message.custom_properties["temperatureAlert"] = "true"
53             else:
54                 message.custom_properties["temperatureAlert"] = "false"
55

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56         # Send the message.
57         print( "Sending message: {}".format(message) )
58         client.send_message(message)
59         print ( "Message successfully sent" )
60         time.sleep(3)
61
62     except KeyboardInterrupt:
63         print ( "IoTHubClient sample stopped" )
64
65 if __name__ == '__main__':
66     print ( "IoT Hub Quickstart #1 - Simulated device" )
67     print ( "Press Ctrl-C to exit" )
68     iotHub_client_telemetry_sample_run()
```