# Hands on lab with IoT Hub and MQTT (20 minutes)

1. Create an IoT Hub
2. Create a device in the IoT Hub and get the connection string to use in step 3

Text

Description automatically generated

1. In cloudshell, run: export conn\_str="*{yourconnectionstringhere}*”
2. In cloudshell, run: pip3 install azure-iot-device
3. In cloudshell, run: git clone <https://github.com/microsoft/2023iotlevelup.git>
4. In cloudshell, run: cd 2023iotlevelup/MQTT
5. In cloudshell, run: python3 ./lab1.py
6. In the portal, 1:) read the twin, 2:) set a twin, 3:) call a direct method method1 and 4:) send a message to device

Graphical user interface, text

Description automatically generated

1. In cloudshell, run: code ./lab1.py to read the code Control + Q to exit code
2. In cloudshell, run: code ./lab2.py to read the code for MQTT Control + Q to exit code
   1. Optional, run: python3 ./lab2.py to see the MQTT code in action