

Practice Exercise - IoT core

This document consists of some practice exercises that learners can implement on their own. The idea behind adding these practice exercises is to help the learner gain more knowledge.

In this week mentored learning session we have covered following concepts:

1. Creating things on IoT core
2. Creating tables on DynamoDB
3. Running the simulator to generate the IoT data
4. Creating rule and pushing the data on created table

Additional tasks

Here are few additional exercise that learners can do:

1. While creating the policy, we have provided option to perform all types of operation on the IoT thing. As an exercise, here is what you can do:
 - a. After completing the lab, try to edit the policy to reduce the access level by specifying only relevant topic(s) and actions.
 - b. Ensure that your data push continues to work after your changes to the policy.
2. In the notebook, in one of the sections we have seen how to access the device shadow section for any created thing. You can try an experiment as following:
 - a. Maintaining the device state through device shadow
 - b. Creating policies to keep on updating the device state
3. In the lab you must have created only one IoT thing that is pushing the data.
 - a. Create multiple things and run the script in parallel to push data in dynamoDB on the same topic.
 - b. We have created roles while creating the rule to push data from MQTT to DB, look at the policies it has attached and level of permission we have for that operation.
 - c. Update the policies and check if you are getting the data at the desired place or not.