Watson IoT Integration with Blockchain

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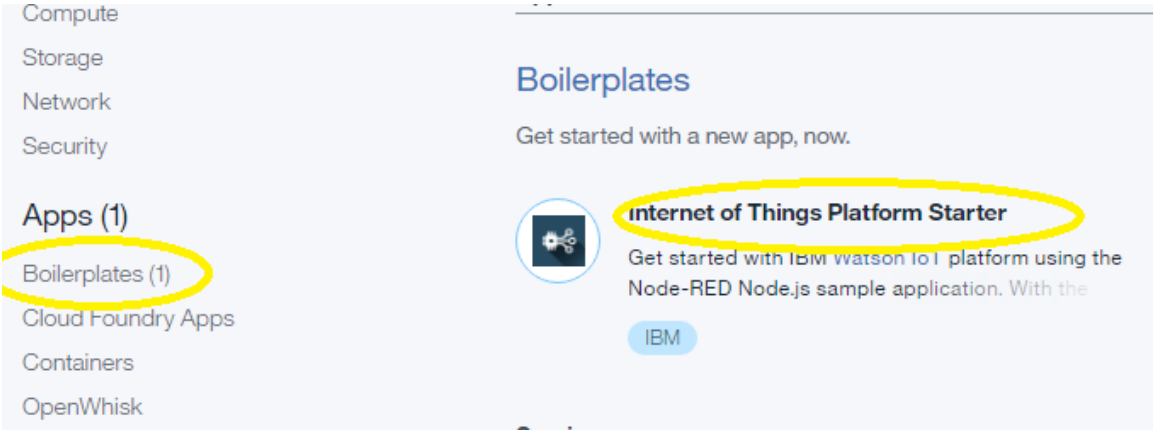
Cloud solution Arch / Startup Mentor

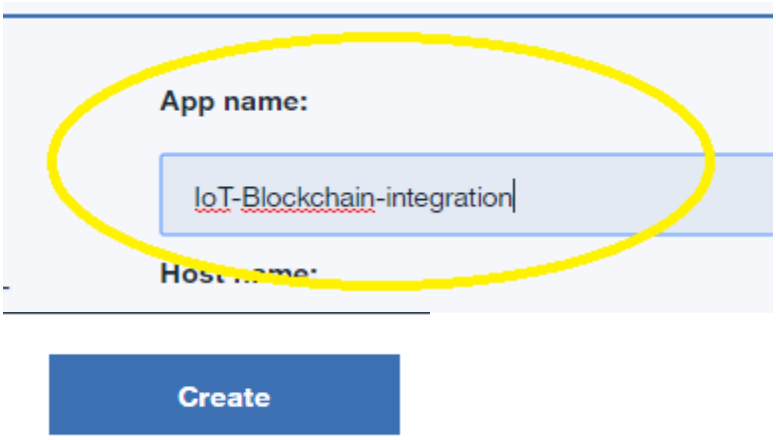
Step 1:

Publish IoT data to Watson IoT Platform using simulator:

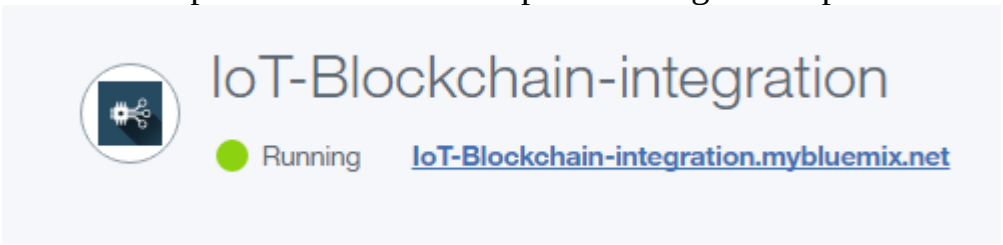
- Login to Bluemix
  - Bluemix.net
- Go to catalog page and deploy Watson IoT Platform



- Provide an **unique name** and consume the service



- Wait for couple of minutes for the provisioning to complete



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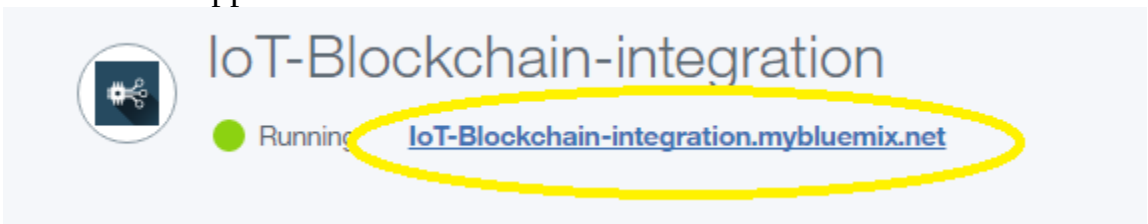
Step 2:

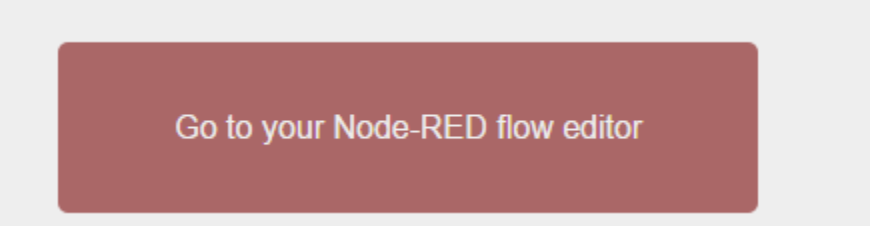
Deploy the IoT Tool JSON object to create the Device simulator.

This step gives you the simulator which does the following function without your intervention

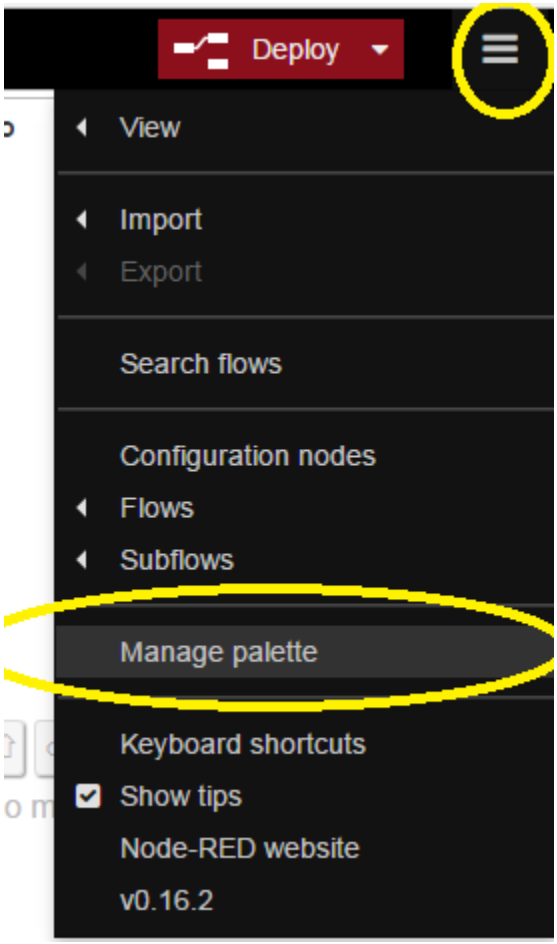
- Device registration
- Device Event publish to Watson IoT platform
  - Option to customize the device data

- Download the JSON file from the link and save it in your local desktop. This is a nodejs based script which needs to be deployed in the node environment
  - Link :
  - https://github.com/ECoDIndia/iot-blockchain/virtual_device_simulator_flow.json
- Open the recently deployed Watson IoT platform to launch the nodejs environment. This is required to deploy the simulator scrips
  - Click on the application link as shown
  - 

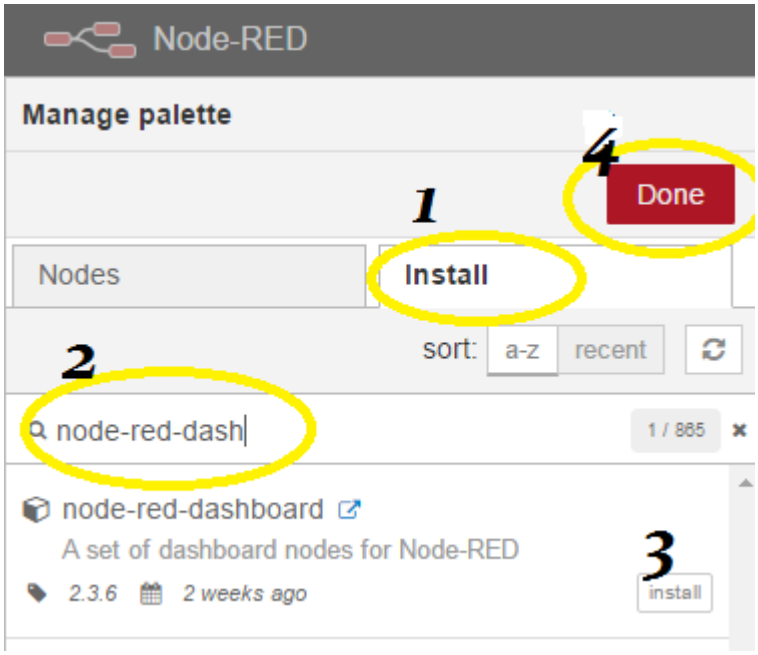
- Launch the Node Red Editor

- 

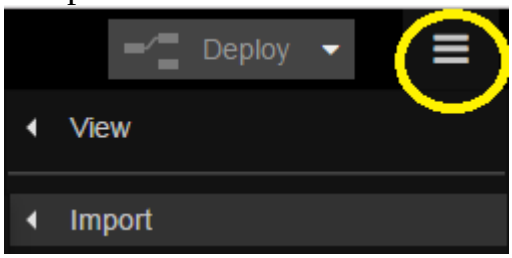
- Install the dashboard based nodes which is not part of the default editor which is just provisioned. Follow the steps as shown

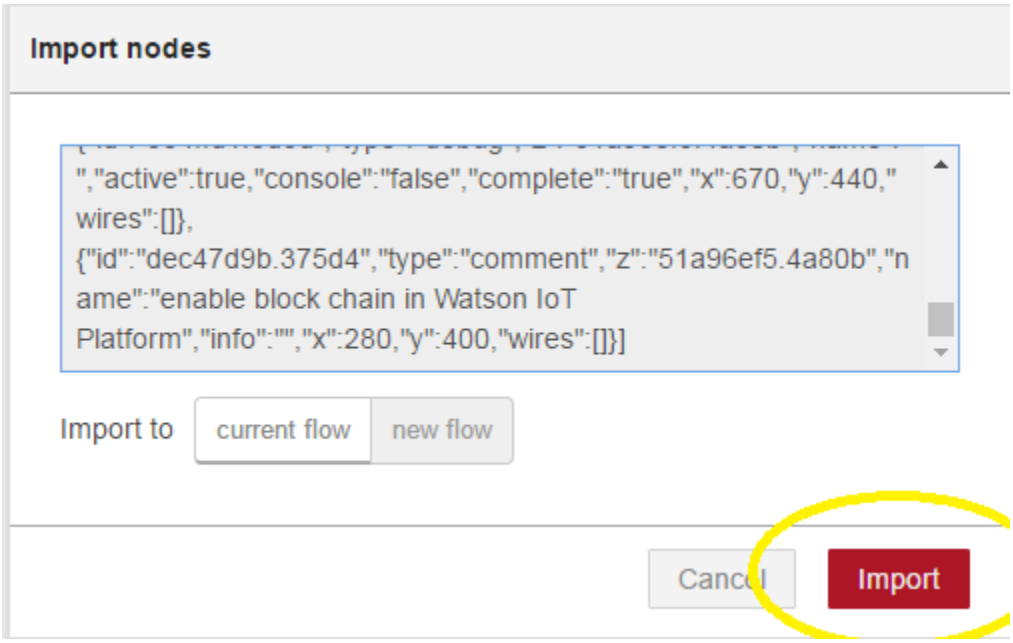
- 

- On the left hand side, search for “node-red-dashboard” and install the nodes pertaining to it



- Now, we are ready to deploy the simulator script…
- Copy the JSON script which was downloaded from the git repository and paste it on the node red Editor clipboard as shown:



- 

- Now the simulator is installed. Simulator provides the following functionality
  - Device Type - Thermostat
  - Device ID - thermostat1
  - Event Type - thermostatEvent
- Go ahead and deploy it, so that the device simulator will get connected with the already provisioned Watson IoT platform and started publishing the data to it.
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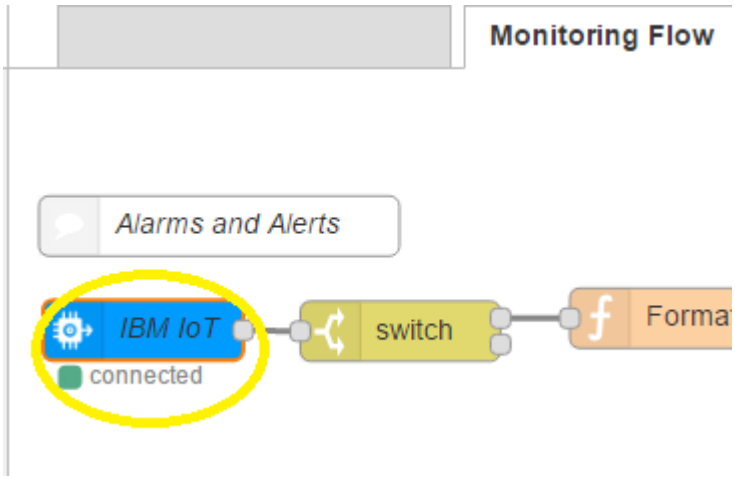
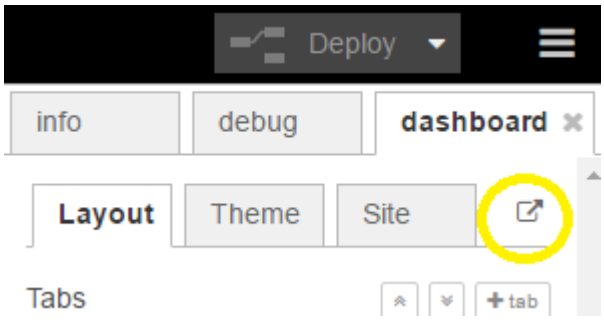
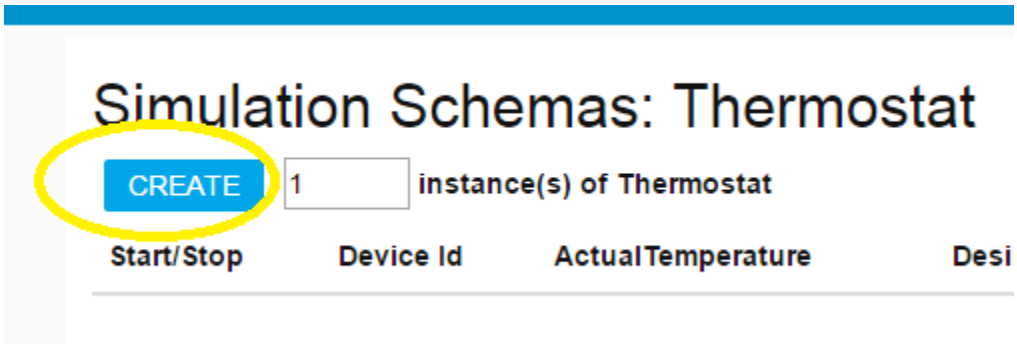
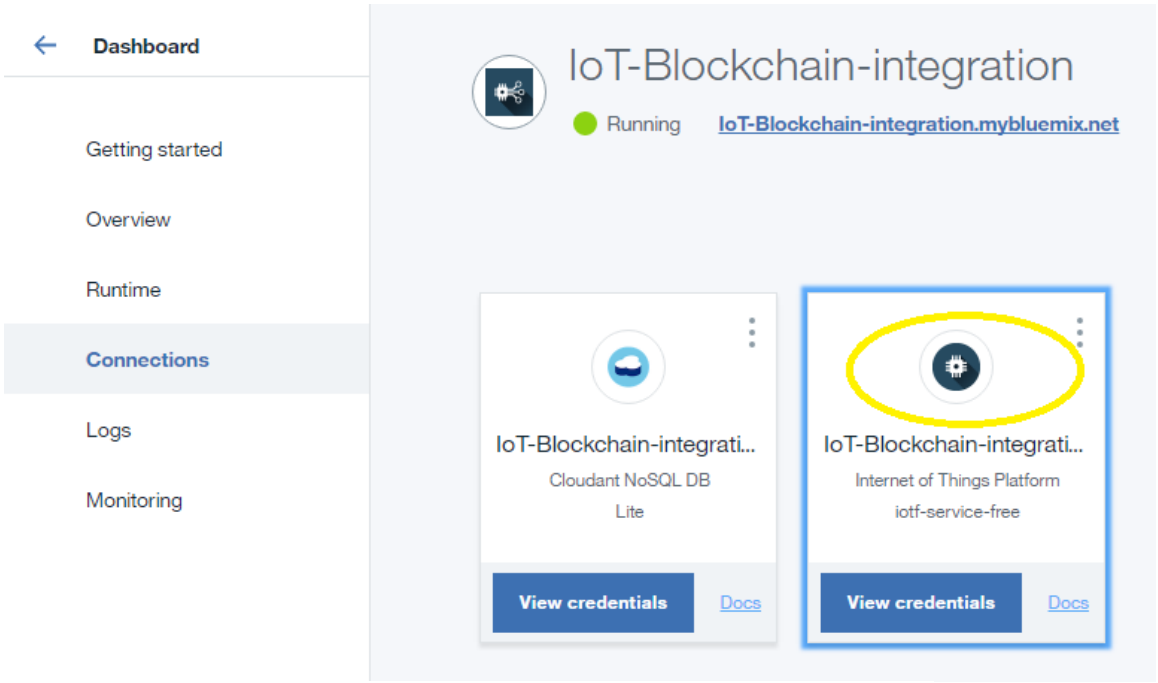
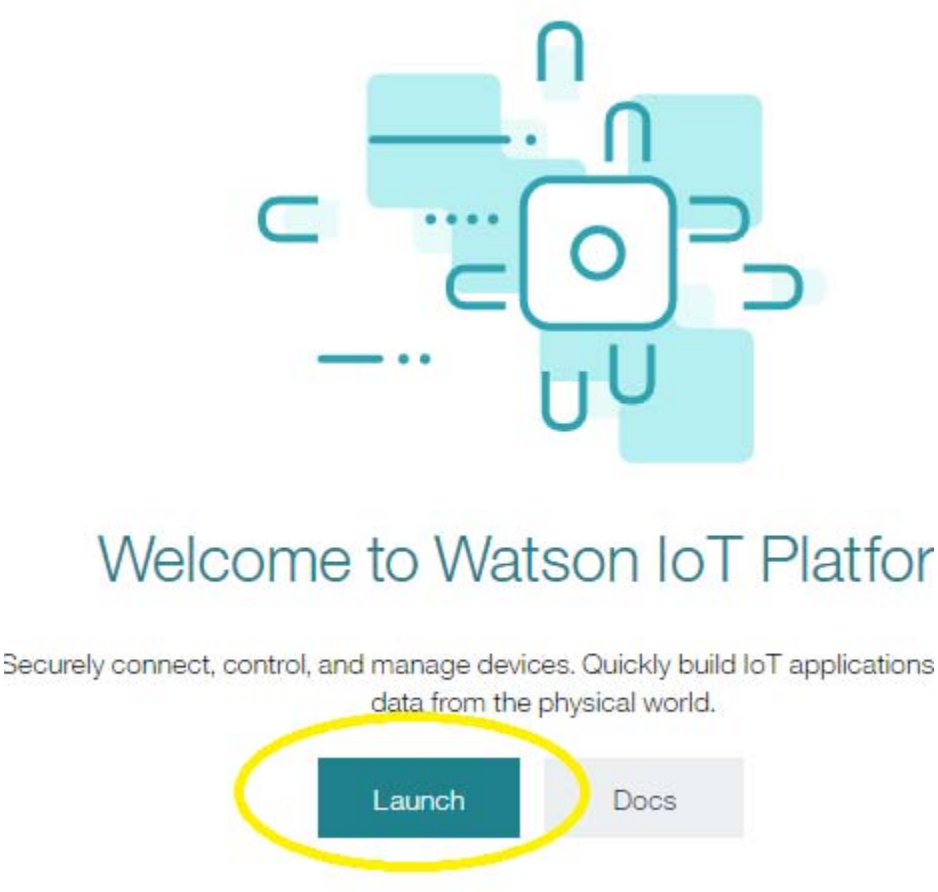
- Successful deploy will have the Watson IoT platform connected as shown:
- 

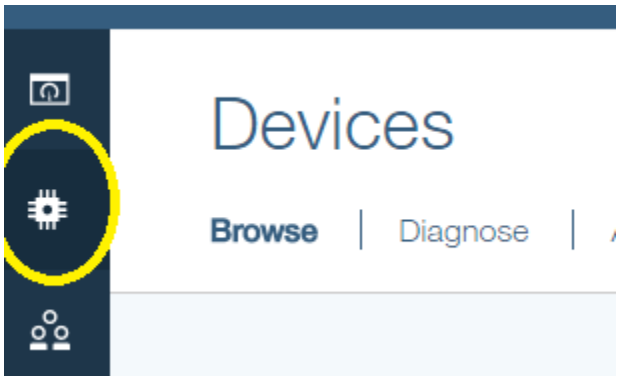
- Now add a new device so that the data from the device flows into the Watson IoT platform.Steps shown below:

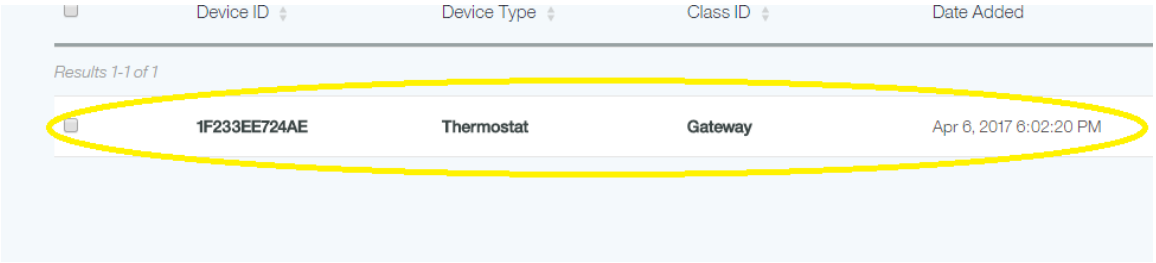




- Now the data is getting generated from the device
- To validate the data flowing onto the platform, go back to the recently launched application (Dashboard) and Launch the Watson IoT Platfrom

- 
Dashboard
Getting started
Overview
Runtime
Connections
Logs
Monitoring
IoT-Blockchain-integration
Running
IoT-Blockchain-integration.mybluemix.net
IoT-Blockchain-integrati...
Cloudant NoSQL DB
Lite
View credentials
Docs
IoT-Blockchain-integrati...
Internet of Things Platform
iotf-service-free
View credentials
Docs
- 
Welcome to Watson IoT Platfor
Securely connect, control, and manage devices. Quickly build IoT applications
data from the physical world.
Launch
Docs

- 



- Congratulations !! Now you have successfully generating simulated IoT data flowing on to the Watson IoT Platform.

Device simulator code contribution by : Harihara P Viswanathan , IoT Developer, IBM (harihvis@in.ibm.com)

Next Step….

Proceed to deploying Chaincode using Blockchain service in Bluemix…