



Connecting an OBD II Simulator to the Watson IoT Platform

Miracle Summer of Code Virtual Labs Series

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Miracle's SoC Series : Connecting an OBD II Simulator to the Watson IoT Platform

Overview

In this lab the user will be creating a Bluemix IoT Service Instance for the Watson IoT Platform, and will use it to register and connect an OBD II(Vehicle Diagnostics) Simulator to the Watson IoT Platform. This will enable the user to stream sensor data such as speed, fuel level, Tire pressure and more to the cloud.

Prerequisites

You will need the following to complete this lab successfully,

- Active email ID for registering with Bluemix
- Registered and active accounts with Bluemix

Technology Involved

The following technologies will be covered in this lab,

- IBM Bluemix(PaaS)
- Watson IoT Platform
- On-Board Diagnostics(OBD II)
- NodeRed
- Cloudant(NoSQL DB)

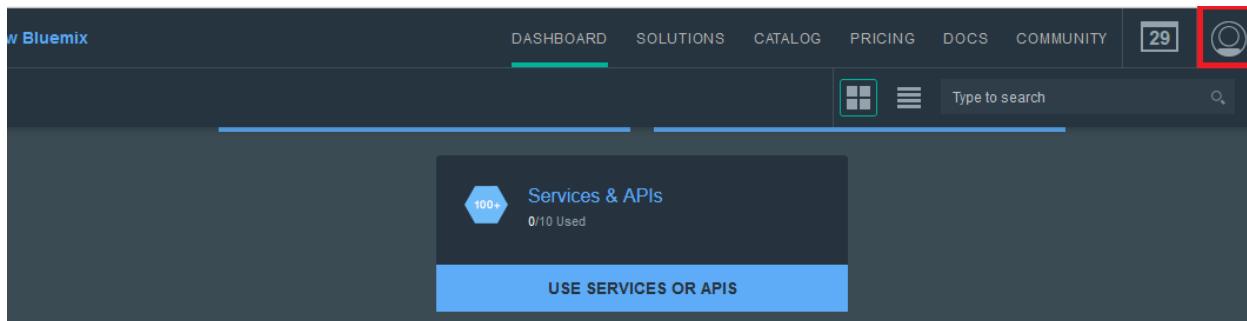
**Basic knowledge on web applications and using the command line will be beneficial but not entirely required*

Lab Steps

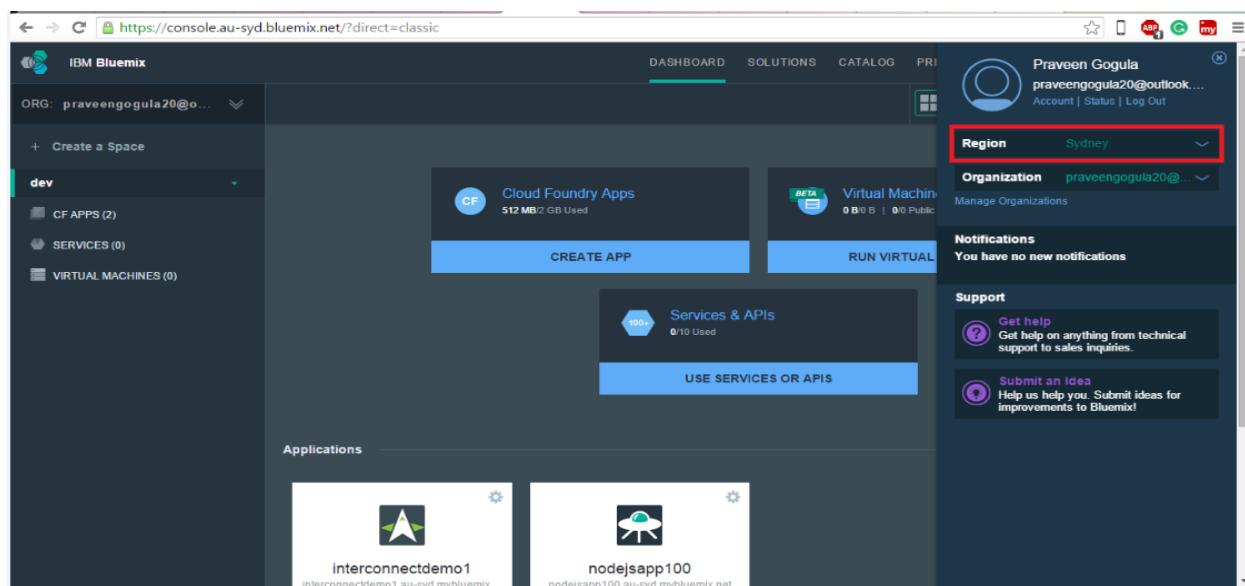
So, let us get started with the lab!

#1 | Access Bluemix

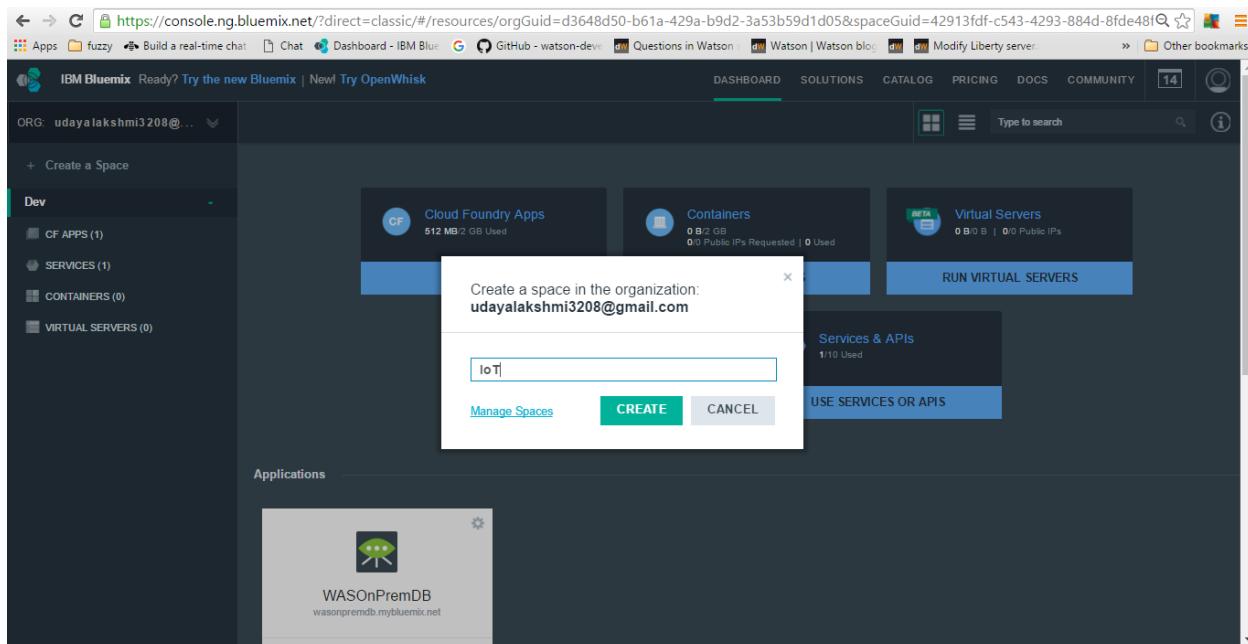
The next step is to make sure that you have access for IBM Bluemix Console with either the free trial option (or) the paid subscription option. Login to Bluemix at <http://bluemix.net> (or) Create a new account today! After logging in you can see your dashboard with your services and applications.



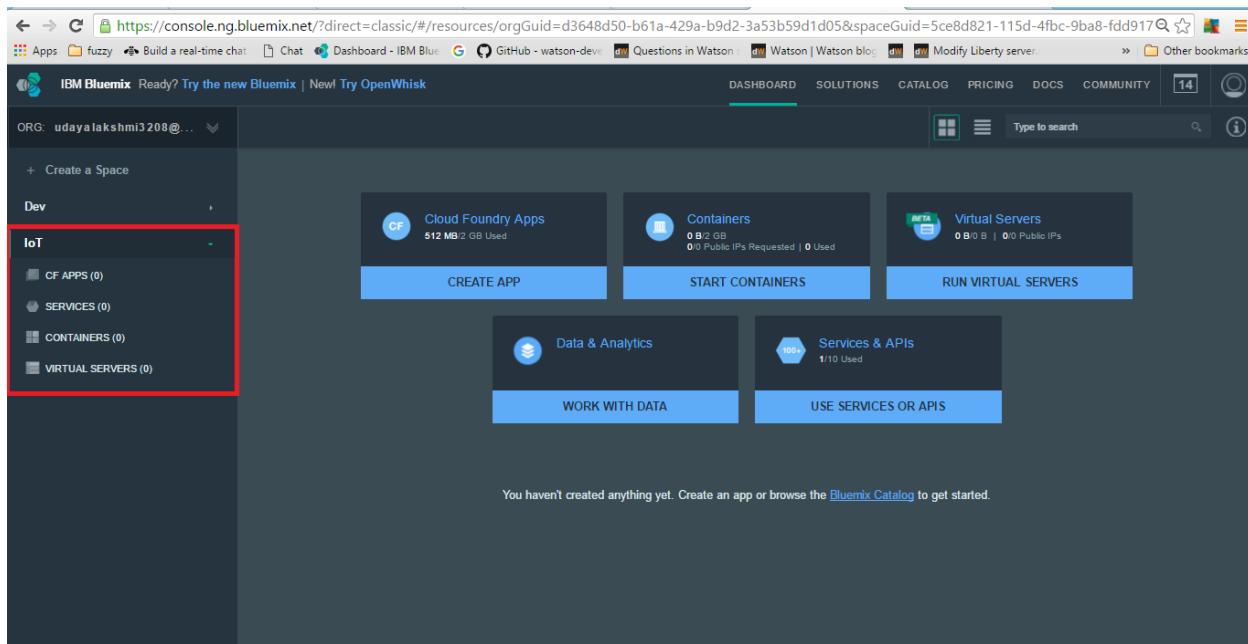
You can also access your profile and check your region as shown below,



Click on “Create a Space” which is at left corner of the Dashboard to create a space in Bluemix Cloud.

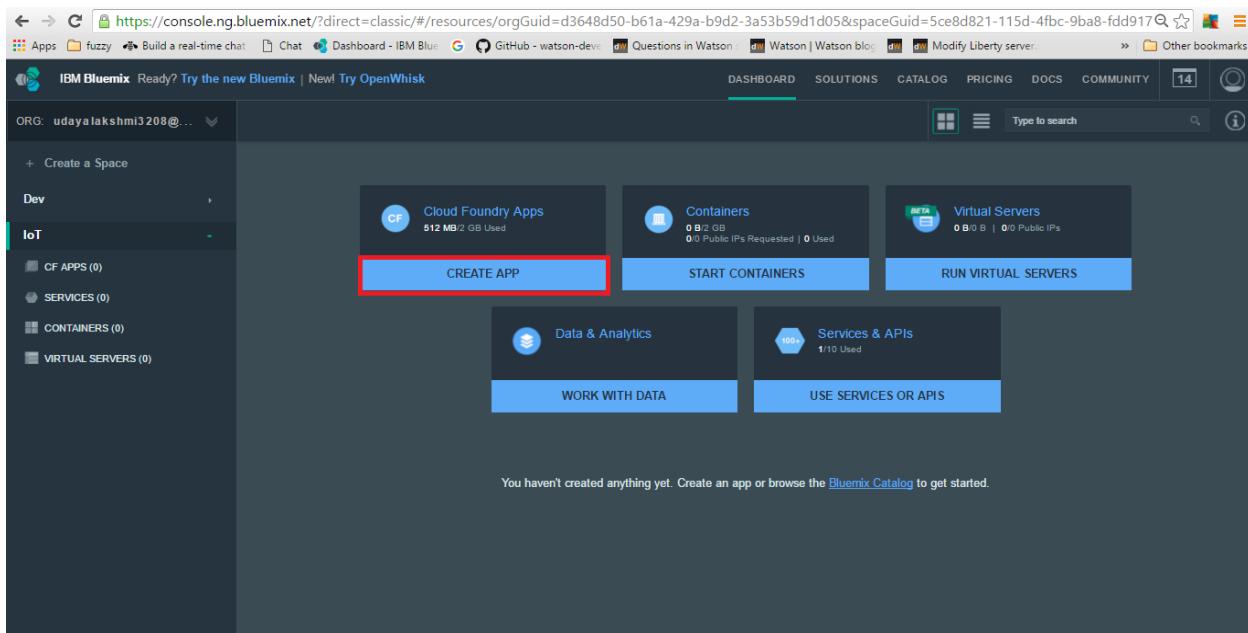


Once the space is created, you can find it at the left side menu of the Dashboard.

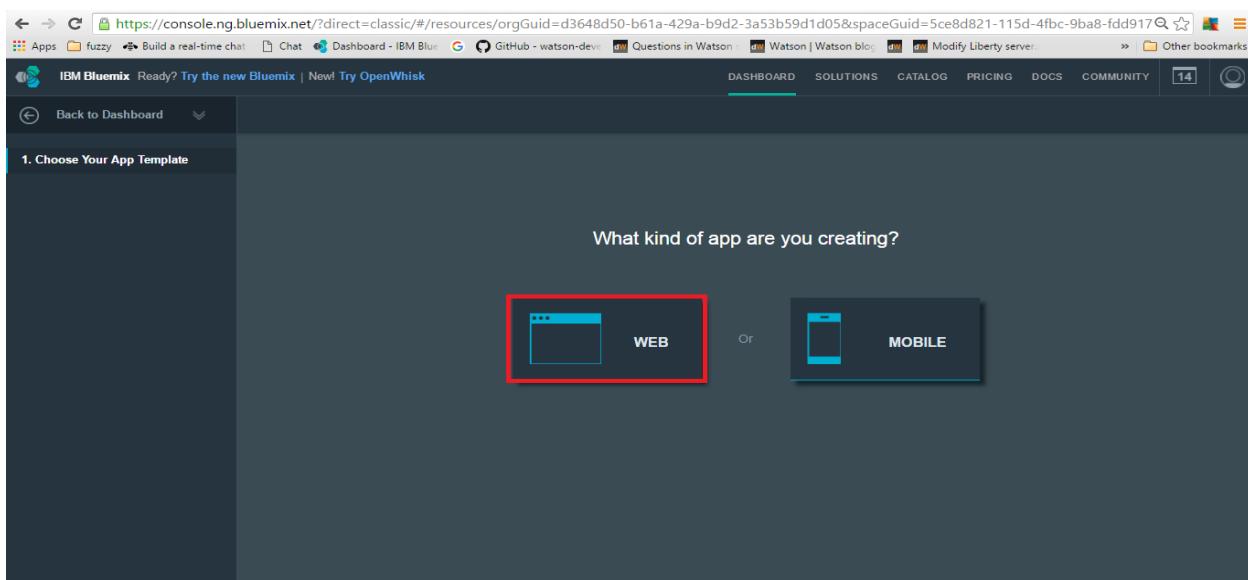


#2 | Create the Application and IoTF Service

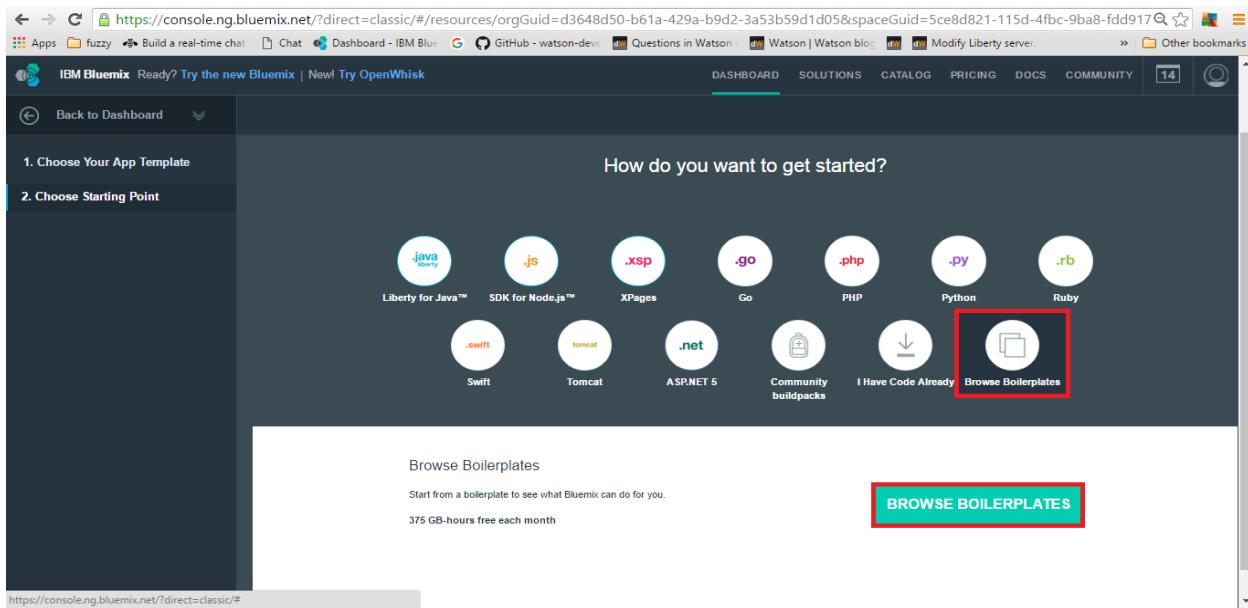
Click on **CloudFoundry Apps** on the Dashboard to create the application.



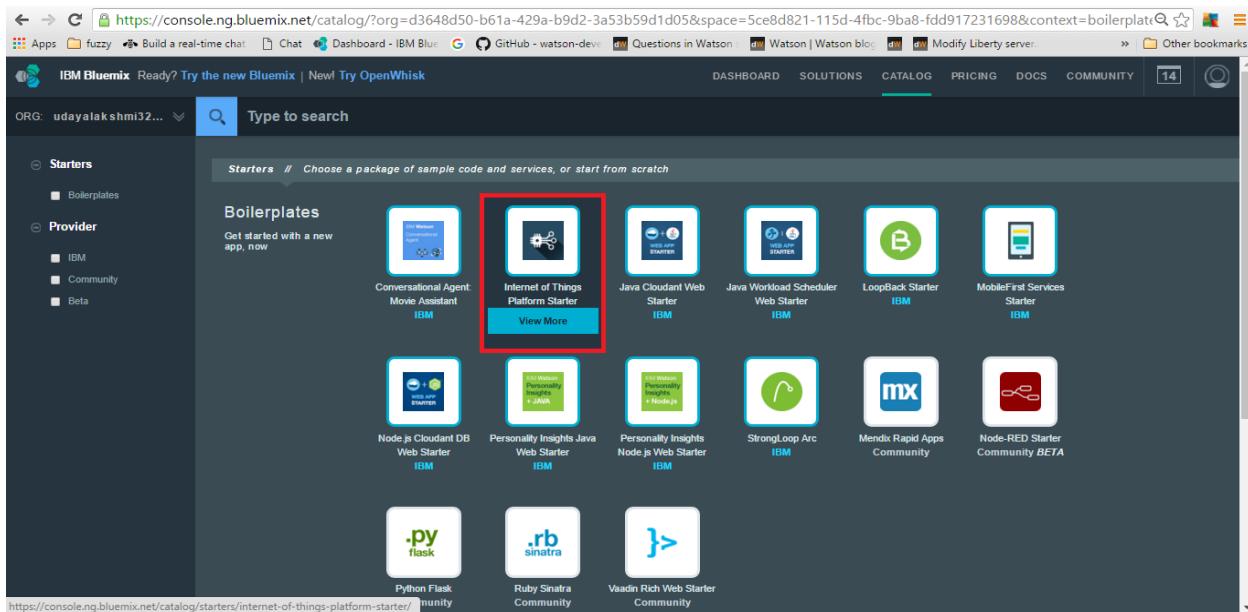
When prompted for the kind of application you want to create please select **Web Application**.



In the next section, click on **browse boiler-plates**.



You will be provided with available Boilerplates, Select “**IoT Platform Starter**”.



This Boilerplate will have “**SDK for Node.js**” and “**Cloudant NoSQL DB**” services by default for us to use as services. It will also have **Node Red** pre-installed for you.

Give a unique name to your application here and click on “Create”. Application Names must be unique as they will be on a public domain.

The screenshot shows the IBM Bluemix Catalog interface. On the left, there's a sidebar with a back button, a search bar, and a list of recent items. The main area displays a card for the "Internet of Things Platform Starter" service. This card includes a thumbnail icon, the service name, a brief description, and a "VIEW DOCS" button. To the right of this card is another card for the "SDK for Node.js™" service, which includes an icon, the service name, and a brief description. Below these cards is a section titled "Pick a plan" with a "Default" plan selected. The "Default" plan is described as running one or more apps free for 30 days (375 GB-hours free) at a price of ₹4,2263 INR/GB-Hour. A "TERMS" button is located below this plan section. To the right of the plan section is a "Create an app" form. The form fields include "Space" (set to "Dev"), "Name" (set to "IoT-Devices"), "Host" (set to "IoT-Devices"), "Domain" (set to "mybluemix.net"), "Selected Plan" (set to "SDK for Node.js™" with "Default" selected), and "Cloudant NoSQL DB" (with "Shared" selected). A large green "CREATE" button is at the bottom of the form. The top navigation bar has links for Apps, Dashboard, Solutions, Catalog, Pricing, Docs, Community, and a sign-in button.

Note : Once created, the application will take about 2 minutes for staging and start running.

The screenshot shows the IBM Bluemix Dashboard for the "IoT-Devices" application. The left sidebar contains a "Back to Dashboard..." link, a "IoT-Devices" section with "Overview", "SDK for Node.js™", "Files", "Logs", and "Environment Variables" options, and a "Start Coding" section with a "Node.js" link. The main content area displays a message "Your application is staging. http://IoT-Devices.mybluemix.net". Below this, a "Getting Started with:" section features a "Internet of Things" card with a description: "Create Internet of Things apps with Node-RED visual editor and the Internet of Things service." Further down, a "Start coding with Internet of Things" section provides instructions: "After your application has started, click on the Routes URL or enter the following URL in a browser: http://<yourhost>.mybluemix.net" and "Click Go to your Node-RED flow editor. You will see a ready-made flow that can process temperature readings from a simulated device." The top navigation bar is identical to the one in the previous screenshot.

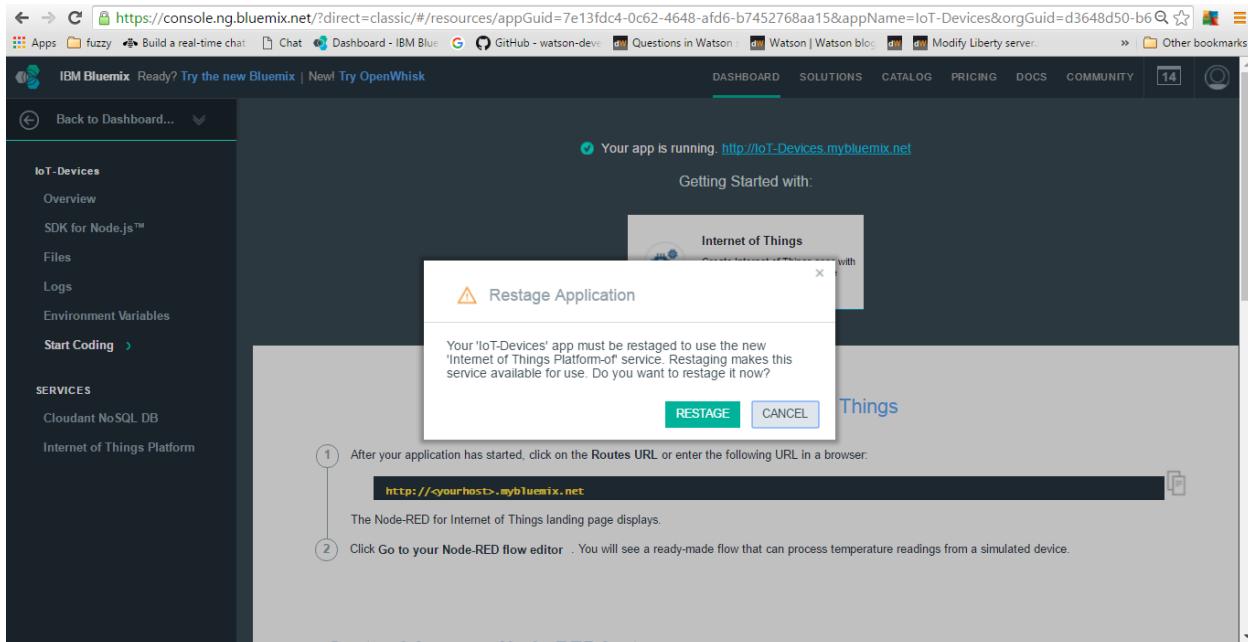
Go to “Catalog” and select “Internet of Things” in the left side menu and then click on “Internet of Things Platform”.

The screenshot shows the IBM Bluemix Catalog interface. On the left, there is a sidebar with categories like Starters, Compute, Services, and Internet of Things (which is highlighted with a red box). The main area displays a section titled "Services // The building blocks of any great app". It features several service icons: "Internet of Things Platform" (selected), "IoT Real-Time Insights IBM", "flowthings.io Third Party", and "IQP IoT Code-Free App Development Third Party". Below these, there's a "Looking for more?" section with a link to the "Bluemix Labs Catalog". The URL in the address bar is <https://console.ng.bluemix.net/catalog/services/internet-of-things-platform/>.

Choose your created application in the “App” field and click on “Create”.

The screenshot shows the detailed view of the "Internet of Things Platform" service on Bluemix. On the left, there's a summary card with the service icon, name, publisher (IBM), publish date (03/30/2016), author (IBM), type (Service), and location (US South). A "VIEW DOCS" button is also present. The main content area describes the service and its connection to the cloud. To the right, there's a "Add Service" panel where a user has selected the "Space" (Dev) and "App" (IoT-Devices) fields. A dropdown menu shows "Select an application" with "IoT-Devices" and "IoT-Devices.mybluemix.net" listed. A "CREATE" button is at the bottom of the panel. The URL in the address bar is <https://console.ng.bluemix.net/catalog/services/internet-of-things-platform/>.

The application should be restaged to bind and use the new service with the application. When prompted, click on “Restage”.



Note : The application will take about 2 minutes for staging and start running again.

#3 | Downloading the OBD II Simulator

For simulating sensor events from a vehicle we will be using a pre-built OBD II simulator provided by IBM. It is a simple web application that can send MQTT messages to a defined end-point.

The Vehicle simulator runs in your browser and can be used to simulate vehicle event such as fuel level, battery power remaining, engine temperature and tire pressure.

You can download the Vehicle Simulator project from Github by using the following link,

<https://github.com/jeffdare/iot-onboard-vehicle-data>

Click on “Download Zip”.

No description or website provided.

2 commits 1 branch 0 releases 1 contributor

Branch: master New pull request

jeffdare Create README.md

images first commit1 a year ago

js first commit1 a year ago

styles first commit1 a year ago

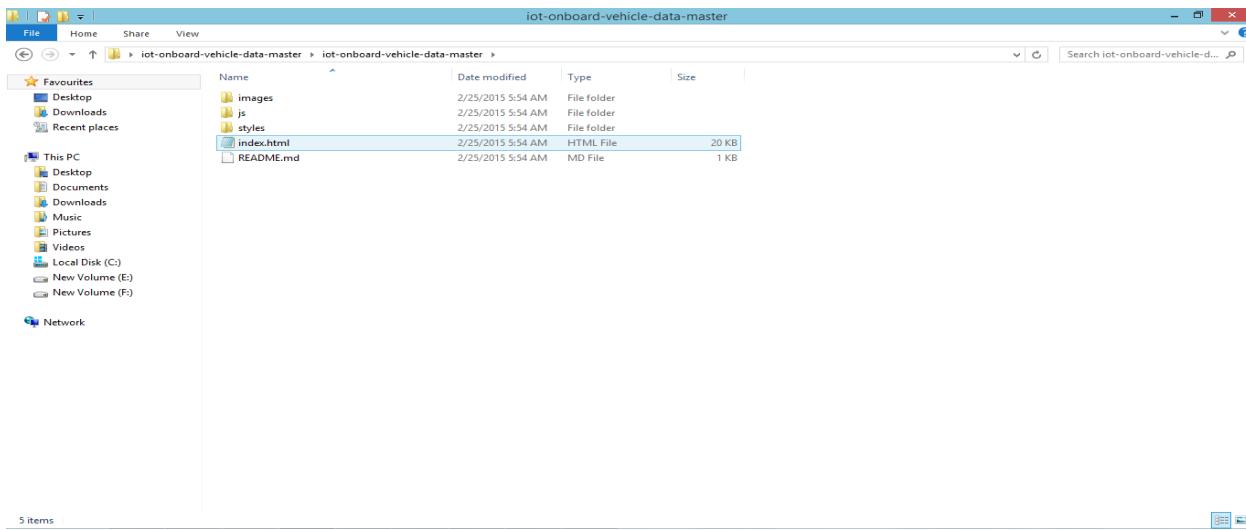
README.md Create README.md a year ago

index.html first commit1 a year ago

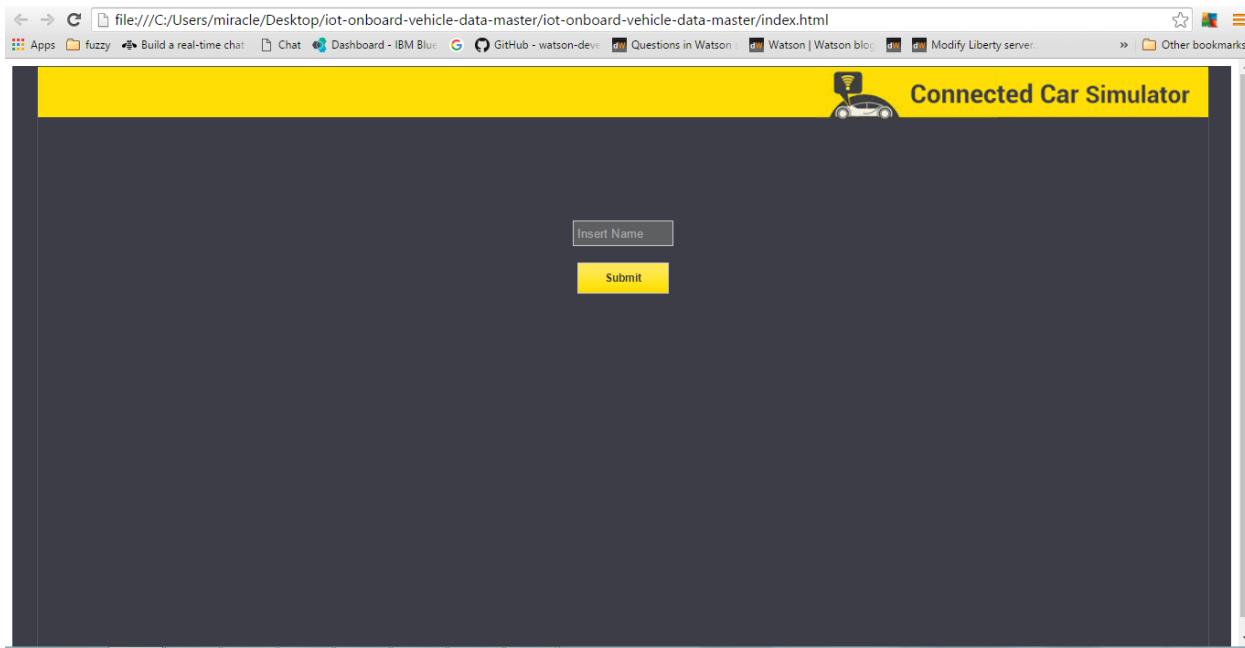
README.md

<https://github.com/jeffdare/iot-onboard-vehicle-data/archive/master.zip>

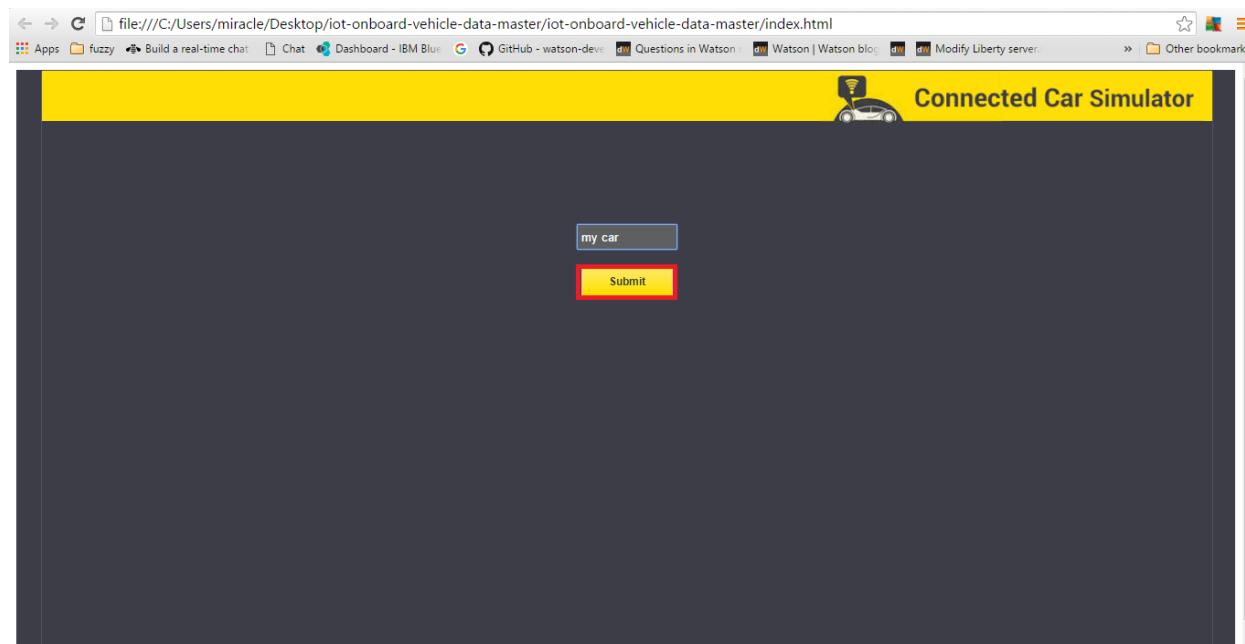
The Zip folder will be downloaded to your local file system. Unzip the folder and then run the index.html file to go to the simulator dashboard.



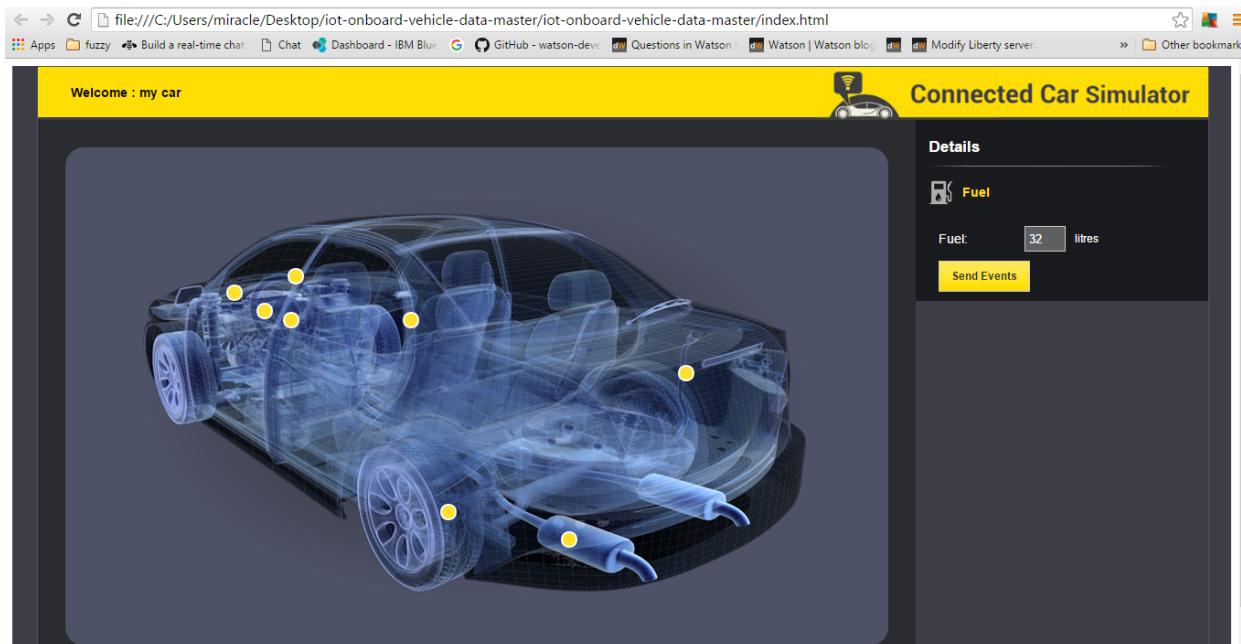
When prompted give your name to the dashboard.



This is the dashboard for Vehicle Simulator. Give any name in the input field. For example, give “**my car**”. click on “Submit”.

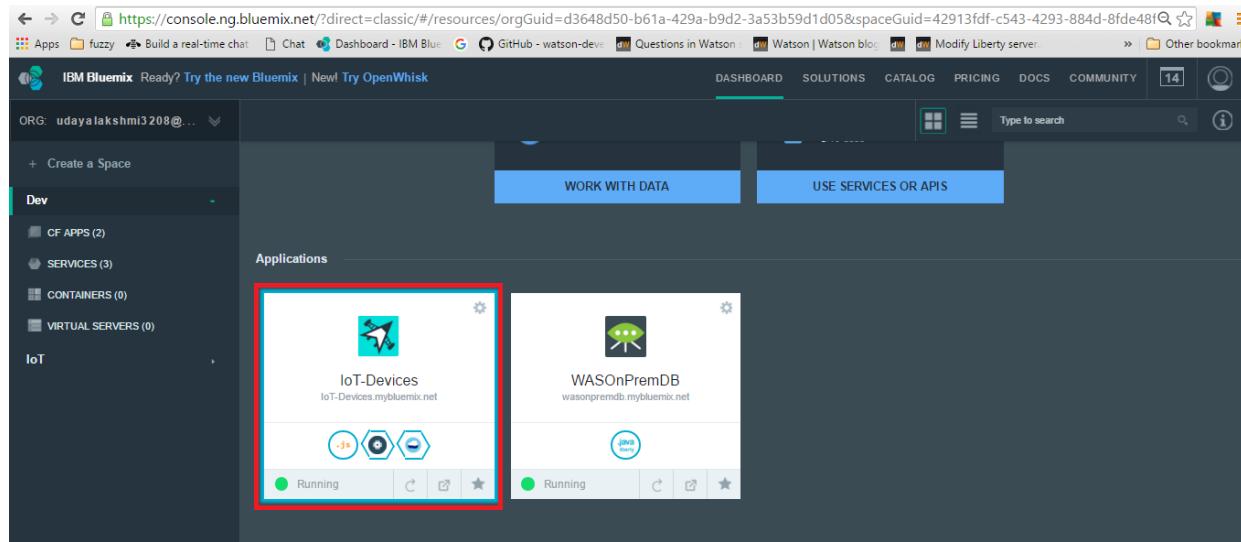


This will take you to “Connected Car Simulator”. Here you can find all the sensors (yellow dots) and their details.



#4 | Register your Vehicle(Simulator)

Go back to your Bluemix account and click on your application.



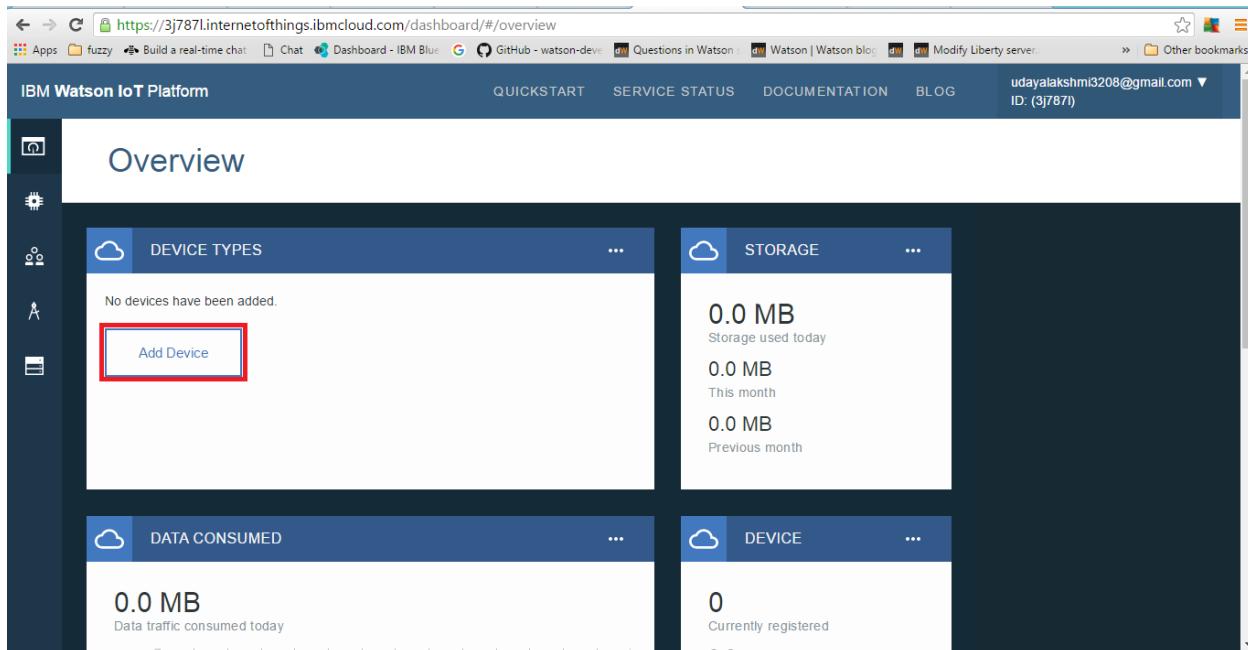
Click on “Internet of Things Platform” service.

The screenshot shows the IBM Bluemix IoT-Devices dashboard for an application named "IoT-Devices". The left sidebar lists "IoT-Devices" services: Overview, SDK for Node.js™, Files, Logs, Environment Variables, Start Coding, and SERVICES (Cloudant NoSQL DB, Internet of Things Platform). The main panel displays the app configuration with 1 instance, 512 MB memory quota, and 1.000 GB available memory. It also shows sections for "ADD A SERVICE OR API" and "BIND A SERVICE OR API". Two services are listed: "Internet of Things Platform" and "Cloudant NoSQL DB". The "Internet of Things Platform" service is highlighted with a red box. The right panel shows the "APP HEALTH" status as "Your app is running." and the "ACTIVITY LOG" with several log entries from April 21, 2016.

Click on the “Launch Dashboard” button. This will take you to your IoT Platform Organization space.

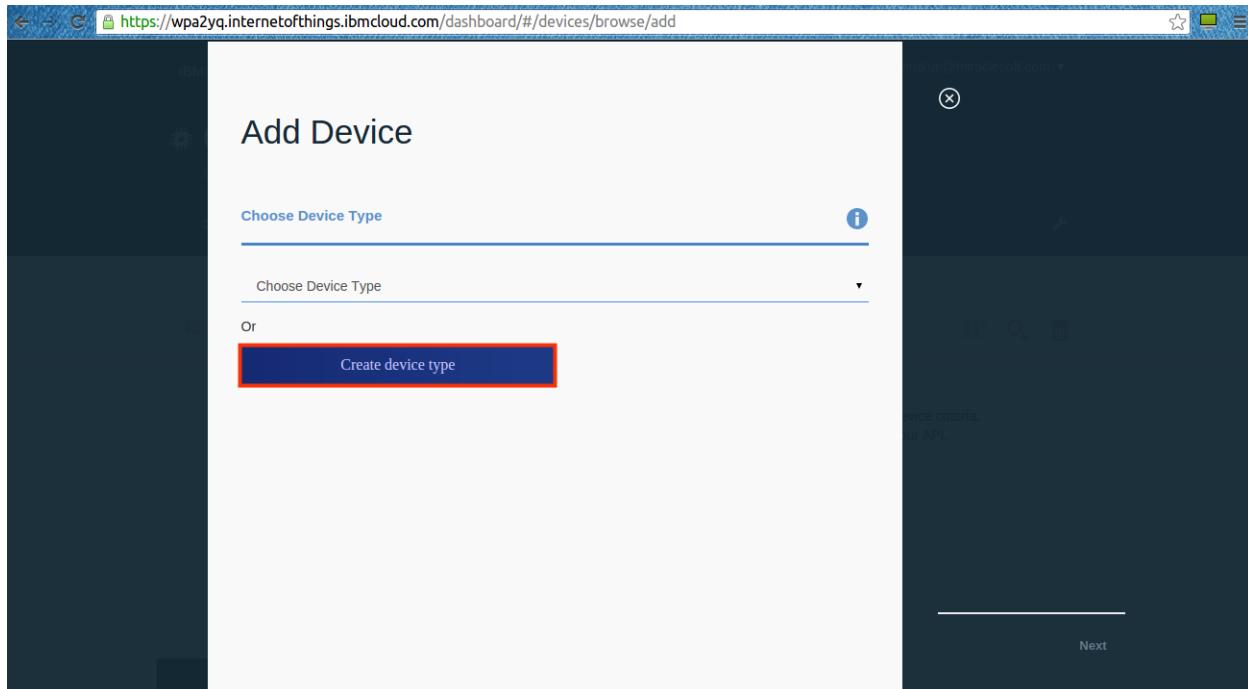
The screenshot shows the Watson IoT Platform dashboard for the "Internet of Things Platform-of" organization. The left sidebar lists "IoT-Devices" services: Overview, SDK for Node.js™, Files, Logs, Environment Variables, Start Coding, and SERVICES (Cloudant NoSQL DB, Internet of Things Platform). The main panel features a welcome message: "Hi! Welcome to the Watson IoT Platform" and "Take a look at the steps below to get you going with your Internet of Things app". It includes three sections: "Connect your devices" (with a "Launch dashboard" button), "Learn how to build your app" (with a "Go to docs" button), and "Learn how to extend your app" (with a list of services: Twilio, Cloudant NoSQL DB, DashDB, Geospatial Analytics, Time Series Database, and IBM Analytics for Watson).

As the Organization is new, there will be no registered devices so Click on “Add Device” to add the Vehicle Simulator to your organization.



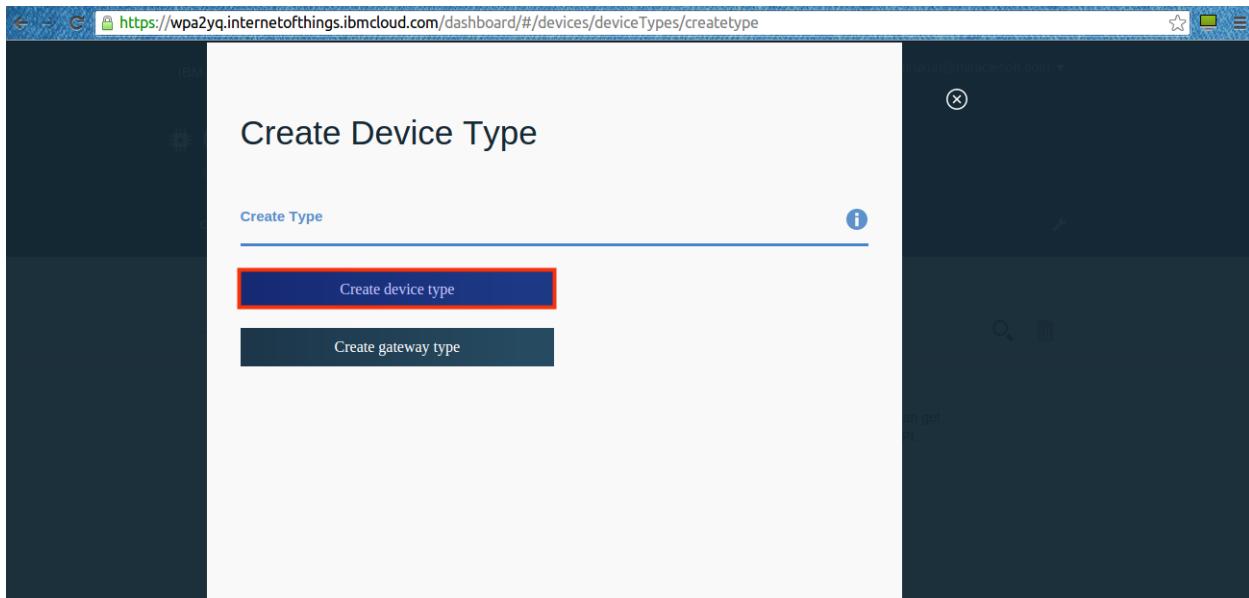
The screenshot shows the IBM Watson IoT Platform Overview dashboard. The top navigation bar includes links for QUICKSTART, SERVICE STATUS, DOCUMENTATION, and BLOG, along with user information for 'udayalakshmi3208@gmail.com' and 'ID: (3j787)'. The main area features four cards: 'DEVICE TYPES' (No devices have been added, with a red box around the 'Add Device' button), 'STORAGE' (0.0 MB used today, 0.0 MB this month, 0.0 MB previous month), 'DATA CONSUMED' (0.0 MB consumed today), and 'DEVICE' (0 currently registered). A sidebar on the left contains icons for device types, storage, data consumed, and device.

Click on “Create Device Type”.

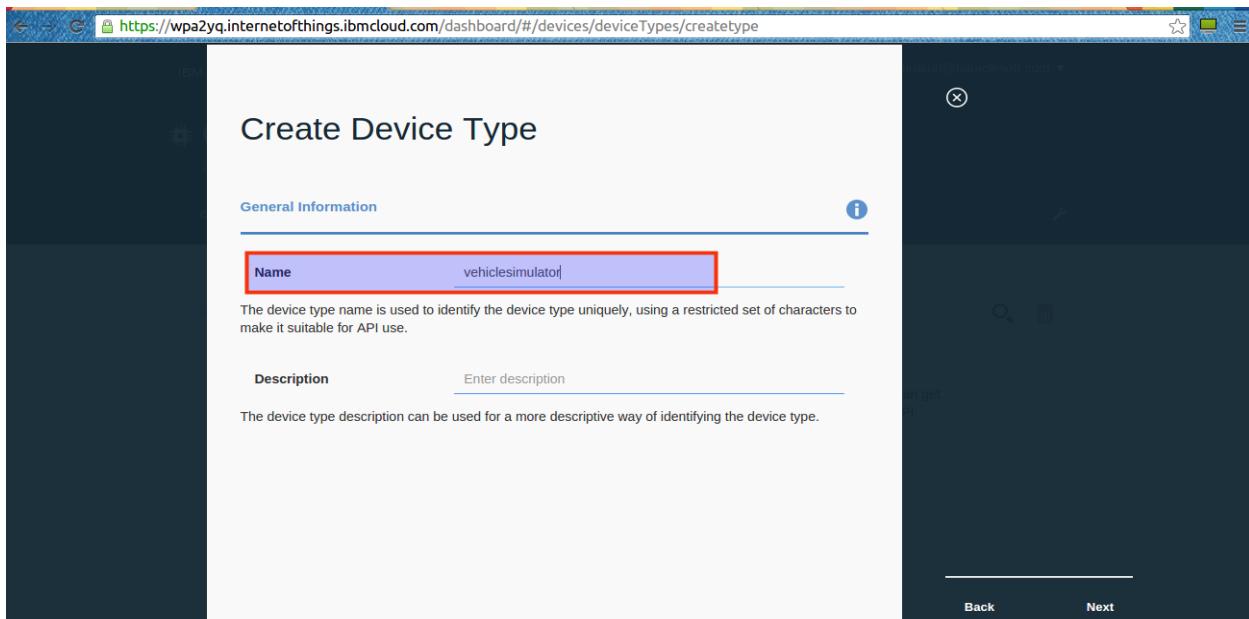


The screenshot shows the 'Add Device' screen. At the top, it says 'Choose Device Type'. Below that is a dropdown menu labeled 'Choose Device Type'. Underneath the dropdown, the text 'Or:' is followed by a blue button with white text that says 'Create device type', which is also highlighted with a red box. To the right of the main form, there is a sidebar with some text and a 'Next' button at the bottom.

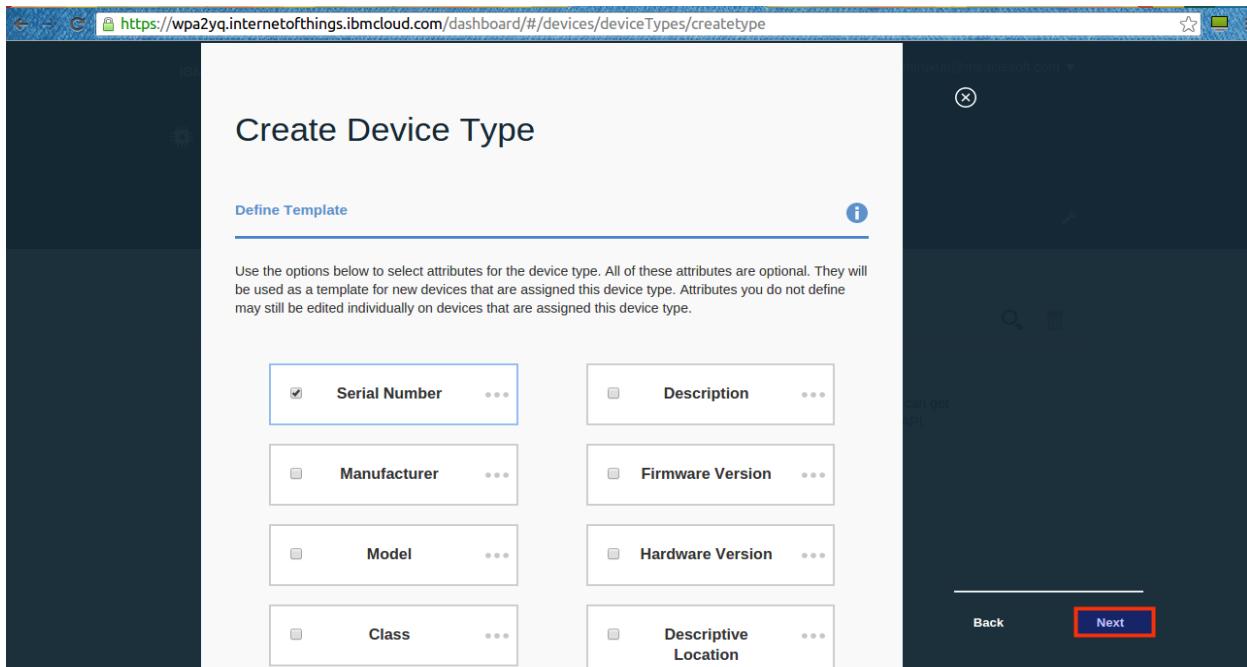
Observer that we have 2 options. As we want to create a Device Type and not a Gateway, click “Create device type”.



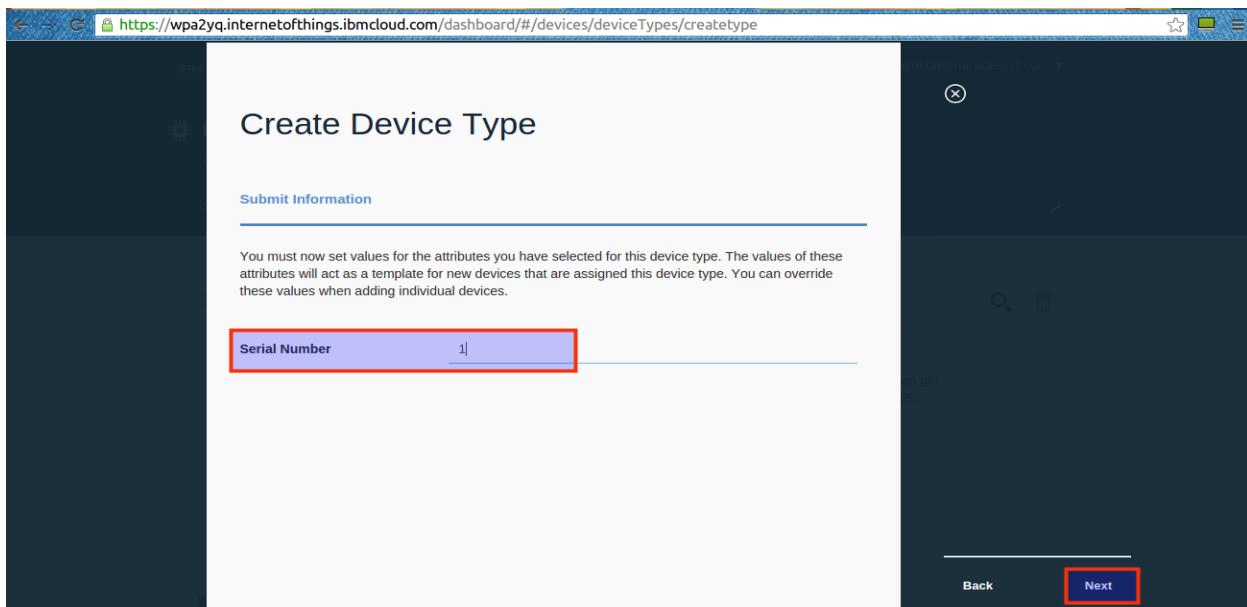
Specify a name for the device type to be added and give description(Optional). For example you can give “**vehiclesimulator**” for “Name” field. Click on “Next”.



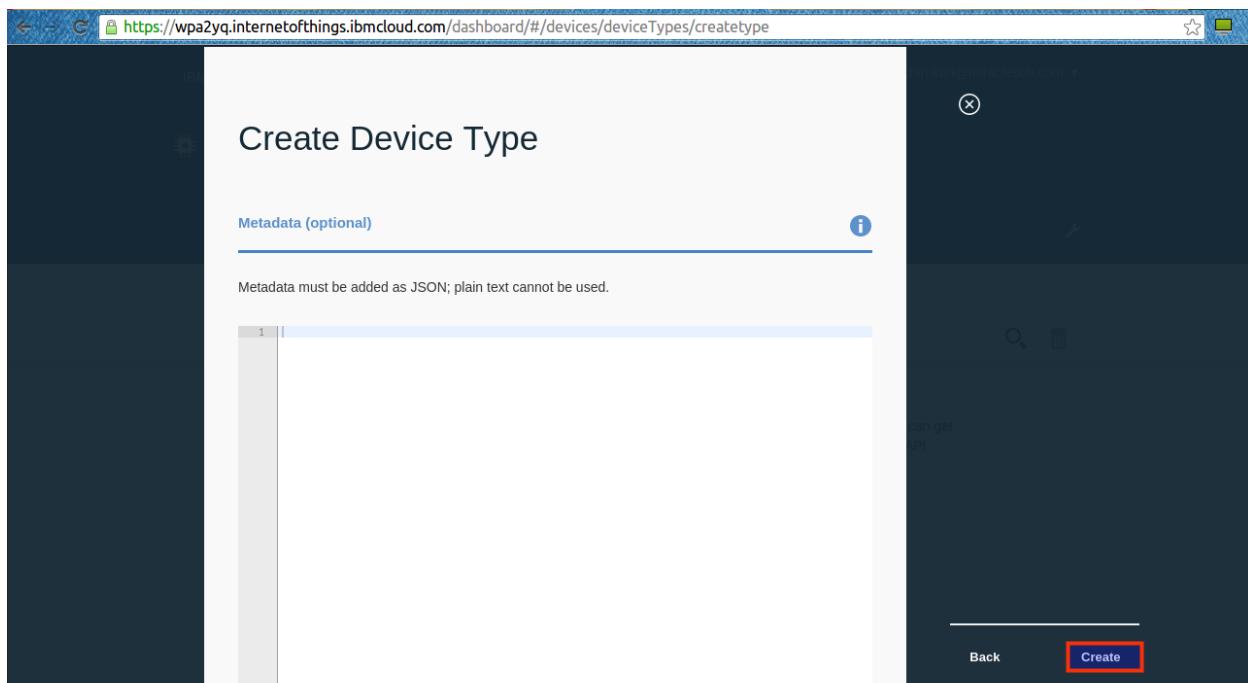
Select one or more attributes and click on “Next”.



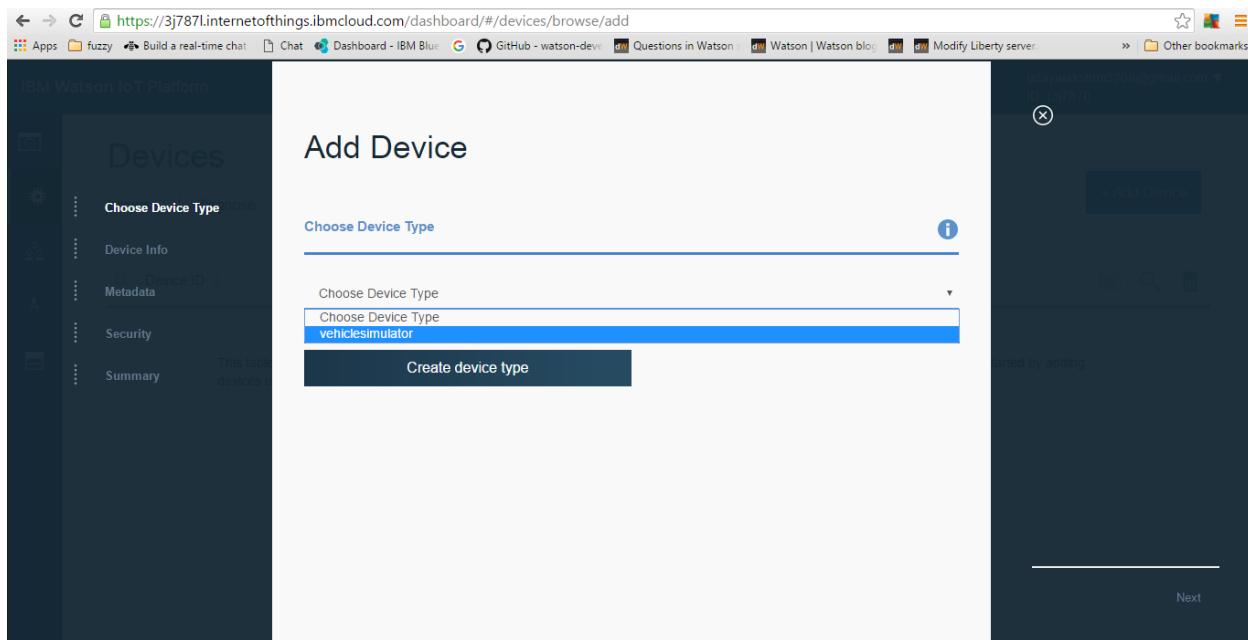
Define the attributes and click on “Next”. For example, you can give “#123” for “Serial Number” field.



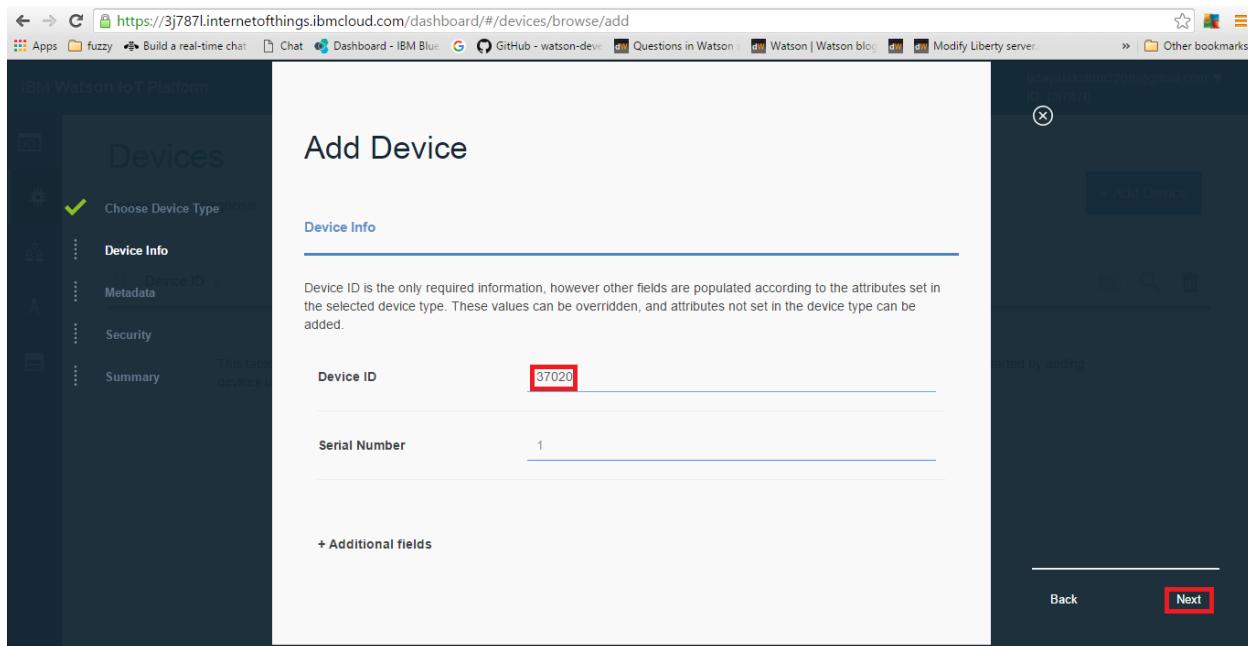
If you want to insert any **Metadata**, you can insert it here (This is optional).



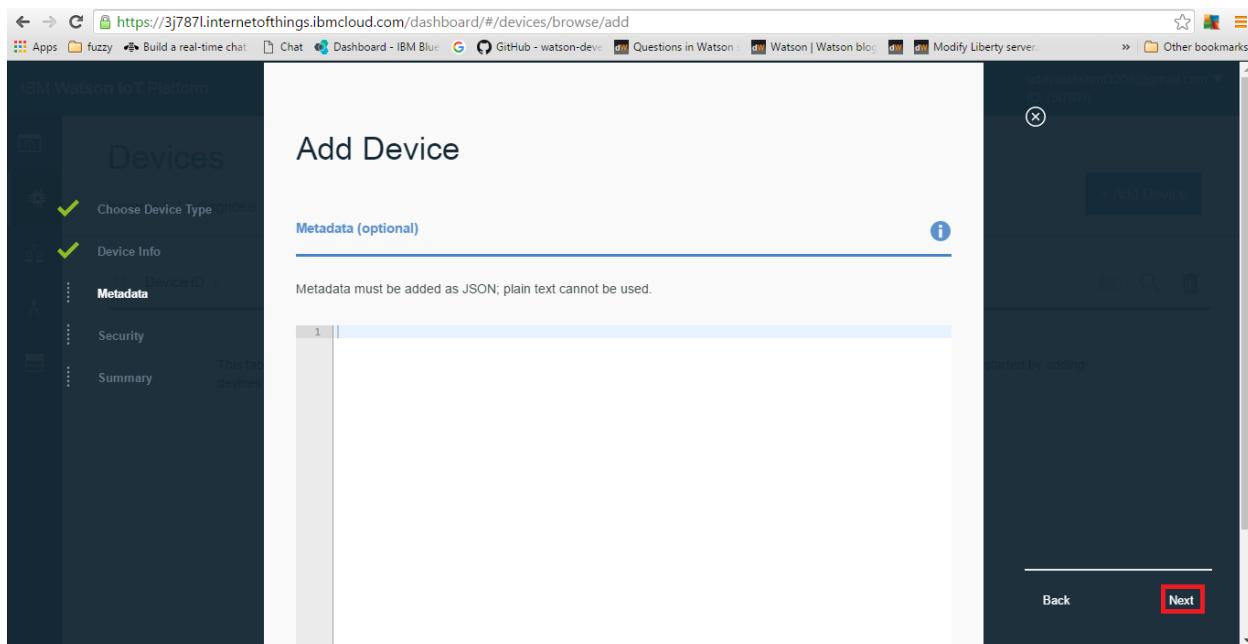
Once the Device Type is successfully created, we can add a device in that. Choose the device type that was created in the last step and click on “Next”.



You must use a unique ID to register your vehicle to the IBM Watson IoT Platform. For example, you can give “37020”. Click on “Next”.



If you want to insert any Metadata, you can insert it here. Click on “Next”.



In the next page, you can either add your own authentication token, or allow the IoT Platform to generate a token for you. If you want to add your own token, enter the field empty. Click on “Next”.

The screenshot shows the 'Add Device' page in the IBM Watson IoT Platform. On the left, a sidebar lists steps: 'Choose Device Type' (done), 'Device Info' (done), 'Metadata' (done), and 'Security' (in progress). The main area is titled 'Add Device' and 'Security'. It says 'You have two options:' and provides two choices: 'Auto-generated authentication token' and 'Self-provided authentication token'. The 'Provide a token (optional)' input field is highlighted with a red border. At the bottom right are 'Back' and 'Next' buttons, with 'Next' also highlighted with a red border.

In the next page, summary of the device will be given. Verify and click on “Add”.

The screenshot shows the 'Add Device' page in the IBM Watson IoT Platform. The sidebar shows all steps completed. The main area is titled 'Add Device' and 'Summary'. It says 'Please check that all submitted information for this device is correct before adding this device.' Below is a table of device details:

Device Type	vehiclesimulator
Device ID	37020
Serial Number	1
Manufacturer	-
Model	-
Class	-
Description	-
Firmware Version	-

At the bottom right are 'Back' and 'Add' buttons, with 'Add' highlighted with a red border.

After registering, store the credentials for the registered device.

The screenshot shows the 'Device 37020' page in the IBM Watson IoT Platform. On the left, a sidebar lists options like 'Devices', 'Your Device Credentials', 'Connection Information', 'Recent Events', 'Sensor Information', 'Metadata', 'Device Information', 'Extension Configuration', and 'Diagnostic Logs'. The main content area is titled 'Device 37020' and contains a section for 'Your Device Credentials'. It displays the following information:

Organization ID	3J787I
Device Type	vehiclesimulator
Device ID	37020
Authentication Method	token
Authentication Token	T5uVdsnS&HjyDhCEoU

Below this, a note states: 'Authentication tokens are non-recoverable. If you misplaced this token, you will need to re-register the device to generate a new authentication token.' A red box highlights the 'Authentication Token' row.

Click the cross button to go back to the main dashboard. Observe that the device is added in your Organization.

The screenshot shows the 'Devices' list page in the IBM Watson IoT Platform. The top navigation bar includes links for 'QUICKSTART', 'SERVICE STATUS', 'DOCUMENTATION', 'BLOG', and user information ('udayalakshmi3208@gmail.com ▾ ID: (3J787I)'). The main content area is titled 'Devices' and shows a table with the following data:

	Device ID	Device Type	Class ID	Date Added	Location	Action
	37020	vehiclesimulator	Device	Apr 21, 2016 4:25:05 PM		

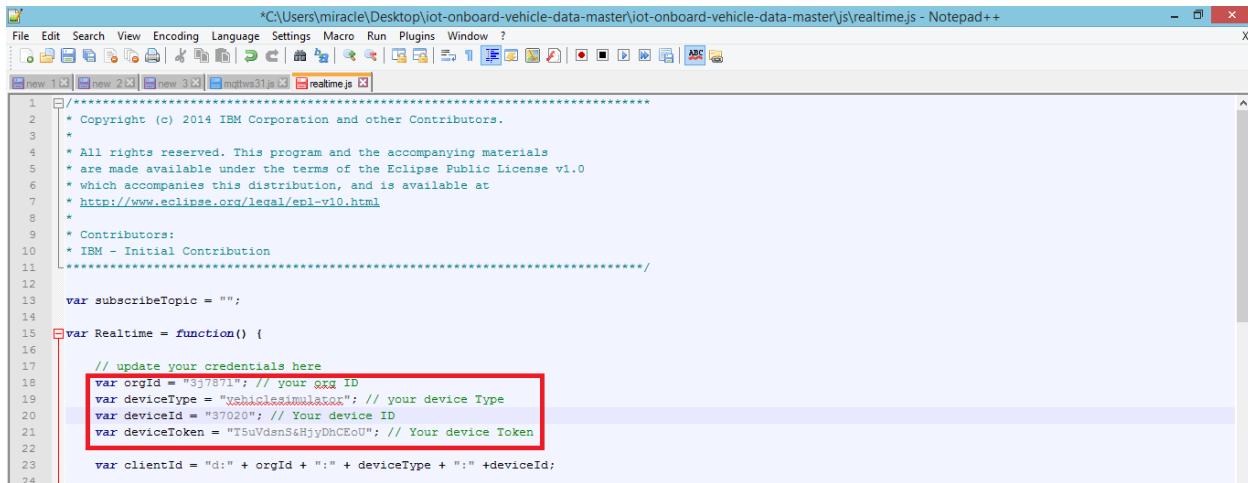
A red box highlights the first row of the table, which corresponds to the registered device 37020.

#5 | Configure your Simulator

For your simulator to communicate sensor events via MQTT to the IoT Platform we will need to configure it with the required endpoints and the registrations details. Go to your application and open the `/js/realtim.js` file.

Update the details of the file with the configuration details as mentioned in the comments. The following are the details that you should have with you to modify the file,

```
var orgId = "<your-Organization-ID>"  
var deviceType = "<your-device-Type>"  
var deviceld = "<your-device-ID>"  
var deviceToken = "<your-device-Token>"
```



```
/* ***** */  
1 * Copyright (c) 2014 IBM Corporation and other Contributors.  
2 *  
3 * All rights reserved. This program and the accompanying materials  
4 * are made available under the terms of the Eclipse Public License v1.0  
5 * which accompanies this distribution, and is available at  
6 * http://www.eclipse.org/legal/epl-v10.html  
7 *  
8 * Contributors:  
9 * IBM - Initial Contribution  
10 *  
11 * ***** /  
12  
13 var subscribeTopic = "";  
14  
15 var Realtime = function() {  
16  
17     // update your credentials here  
18     var orgId = "33781"; // your org ID  
19     var deviceType = "vehiclesimulator"; // your device Type  
20     var deviceld = "37020"; // Your device ID  
21     var deviceToken = "TSuVdsnS6HjyDhCEoU"; // Your device Token  
22  
23     var clientId = "d:" + orgId + ":" + deviceType + ":" + deviceld;  
24 }
```

Save the file and re-open the index.htm file in a browser. You can now return back to the IoT Dashboard and see that your device is connected to the cloud.

#6 | Persisting your data with NodeRed and Cloudant

Go to your Bluemix Application Dashboard and click on **Overview**.

Hi! Welcome to the Watson IoT Platform

Take a look at the steps below to get you going with your Internet of Things app

Connect your devices

Use our [recipes](#) to find out how to add your devices. We work with partners and have sample connection recipes for many devices.

Launch the Watson IoT Platform dashboard and add your devices by clicking the 'Add Device' button under the 'Devices' tab.

[Launch dashboard](#)

Learn how to build your app

When you have added your devices, you can come back to Bluemix to start building your app using your real-time and historical device data.

Read the docs to find out how to make the most out of your app.

[Go to docs](#)

Learn how to extend your app

Use other Bluemix services to extend your app to start creating a great Internet of Things app.

Here are some of the services you could use:

- Twilio Third Party
- Cloudant NoSQL DB
- IBM Watson
- Geospatial Analytics
- Time Series Database
- IBM Analytics for Machine Learning

Click on your application route.

Routes: [iot-devices.mybluemix.net](#)

INSTANCES: 1 MEMORY QUOTA: 512 AVAILABLE MEMORY: 1.000 GB

ADD GIT

APP HEALTH

Your app is running.

RESTART STOP

ACTIVITY LOG

4/21/16 3:54 PM udayalakshmi3208@gmail.com started IoT-Devices app

4/21/16 3:53 PM udayalakshmi3208@gmail.com updated IoT-Devices app

- changed routes

4/21/16 3:53 PM udayalakshmi3208@gmail.com created IoT-Devices app

Estimate the cost of this app

This will redirect you to Node Red tool in Bluemix. Click on “**Go to your Node Red flow editor**”.

Node-RED in Bluemix

A visual tool for wiring the Internet of Things

IBM Watson IoT Platform

Node-RED provides a browser-based editor that makes it easy to wire together flows that can be deployed to the runtime in a single click.

The version running here has been customized for the IBM Watson IoT Platform

[Go to your Node-RED flow editor](#)

[Learn how to password-protect your instance](#)

Node Red Flow sheet will be opened with a set of input and output nodes. Drag and drop “IBM IoT” node onto the flow sheet.

Flow 1 Flow 2

input

- inject
- catch
- status
- mqtt
- http
- websocket
- serial
- tcp
- mqlight
- ibmiot

output

- debug

info

Name	IBM IoT
Type	ibmiot in
ID	ed4c4f46.169aa

Properties

Input node that can be used with the IBM Internet of Things Foundation to receive events sent from devices, receive commands sent to devices, or receive status updates concerning devices or applications. It produces an object called msg and sets **msg.payload** to be a String containing the payload of the incoming message.

The value of "Device Id" is stored in **msg.deviceId**

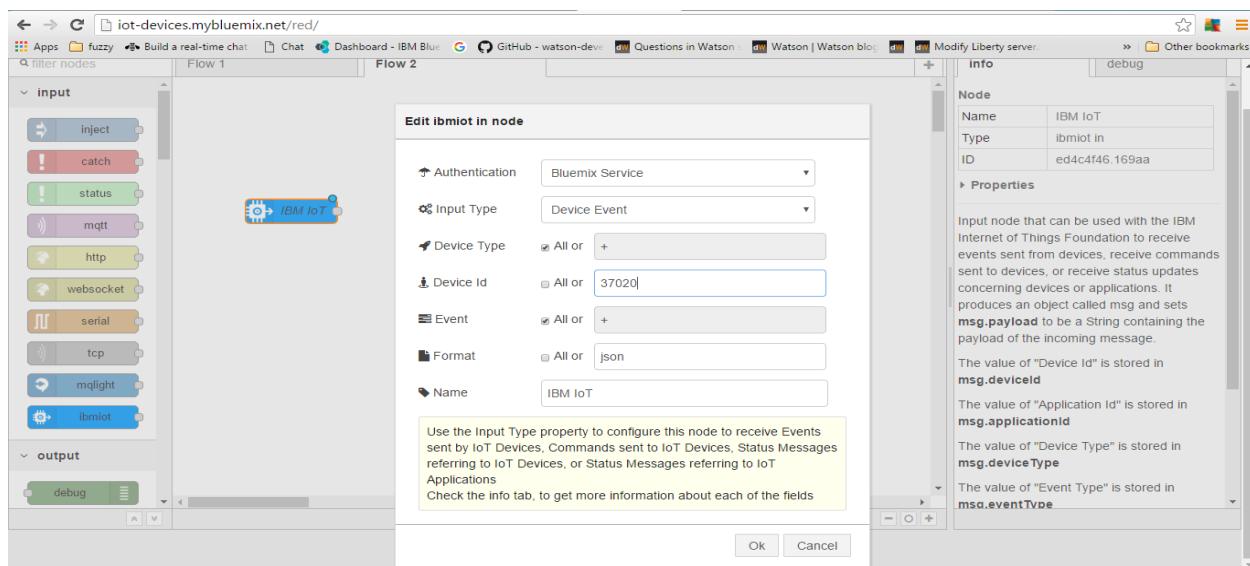
The value of "Application Id" is stored in **msg.applicationId**

The value of "Device Type" is stored in **msg.deviceType**

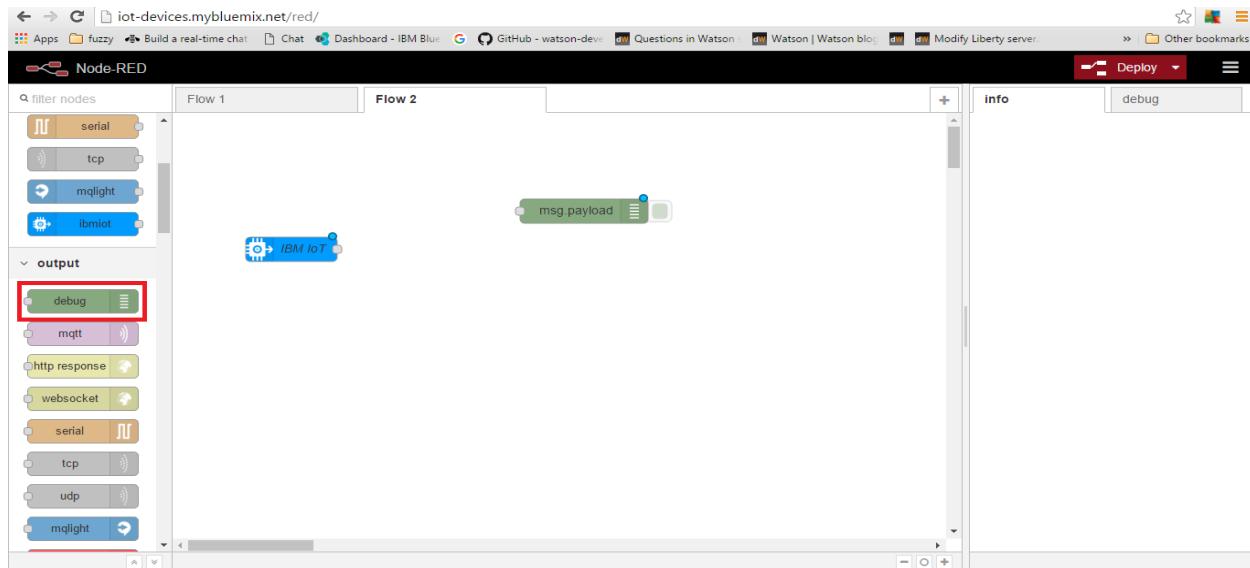
The value of "Event Type" is stored in **msg.eventType**

Double click on the “IBM IoT” node. Give the following for prompted fields,

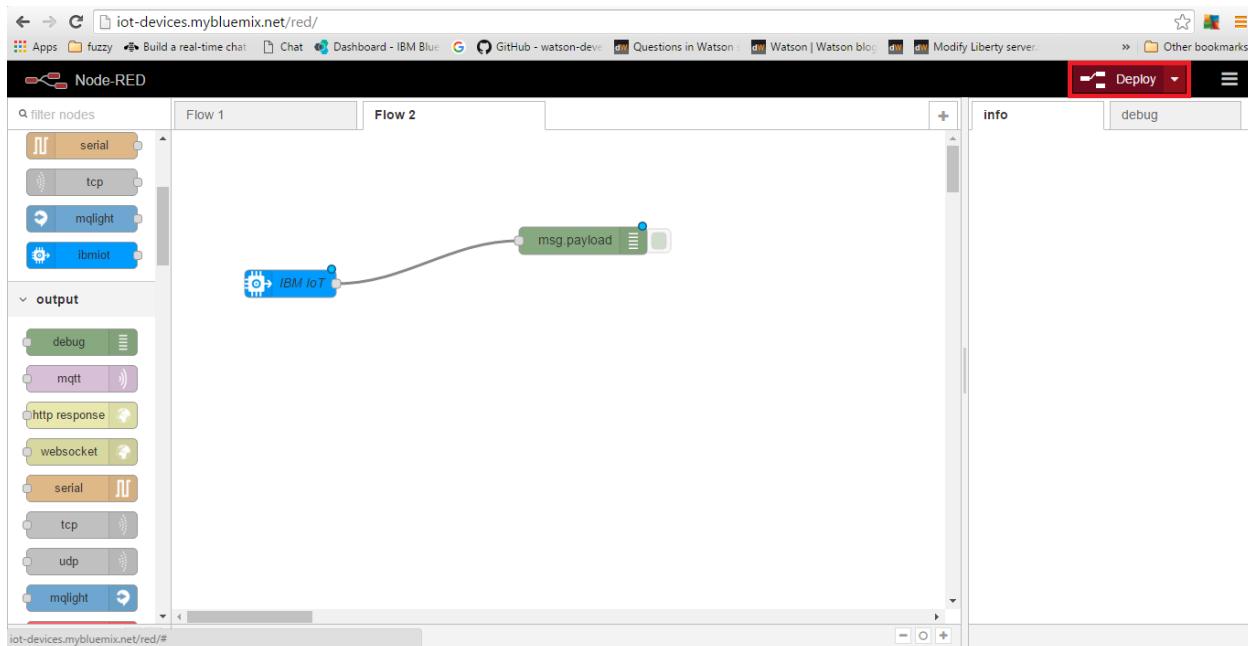
Field	Value
Authentication	Bluemix Service
Input Type	Device Event
Device Id	<Your-Device-ID(MAC ID)>
Format	json



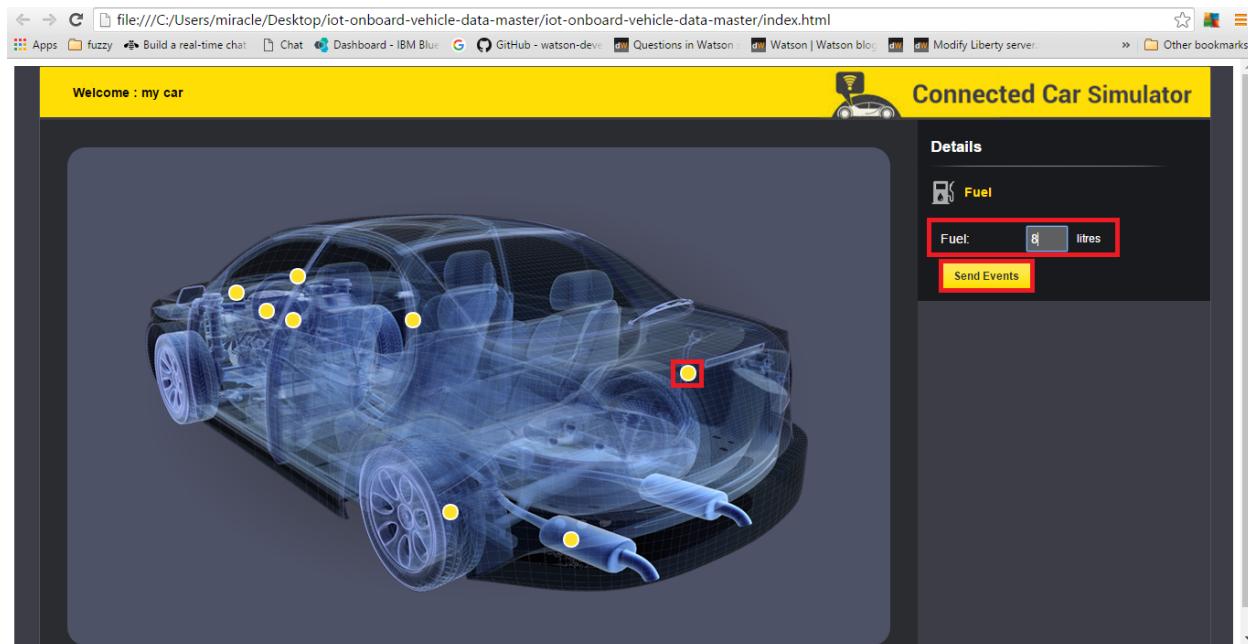
Drag and drop a “debug” node from the list of Output nodes present in the left-side menu.



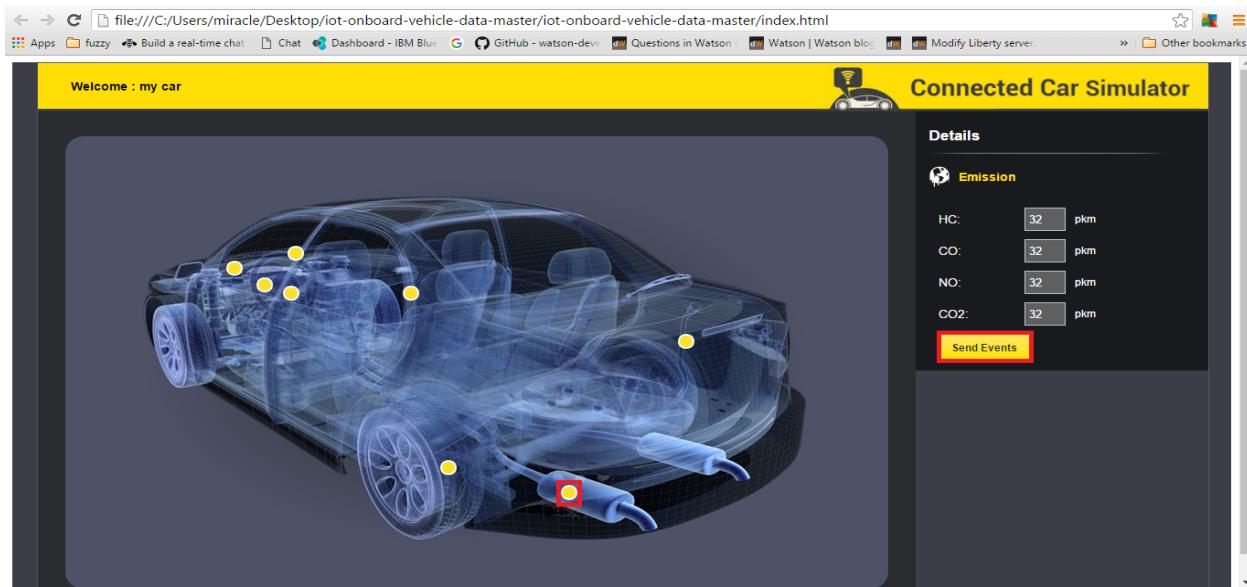
Give connection to both the nodes and click on “Deploy”.



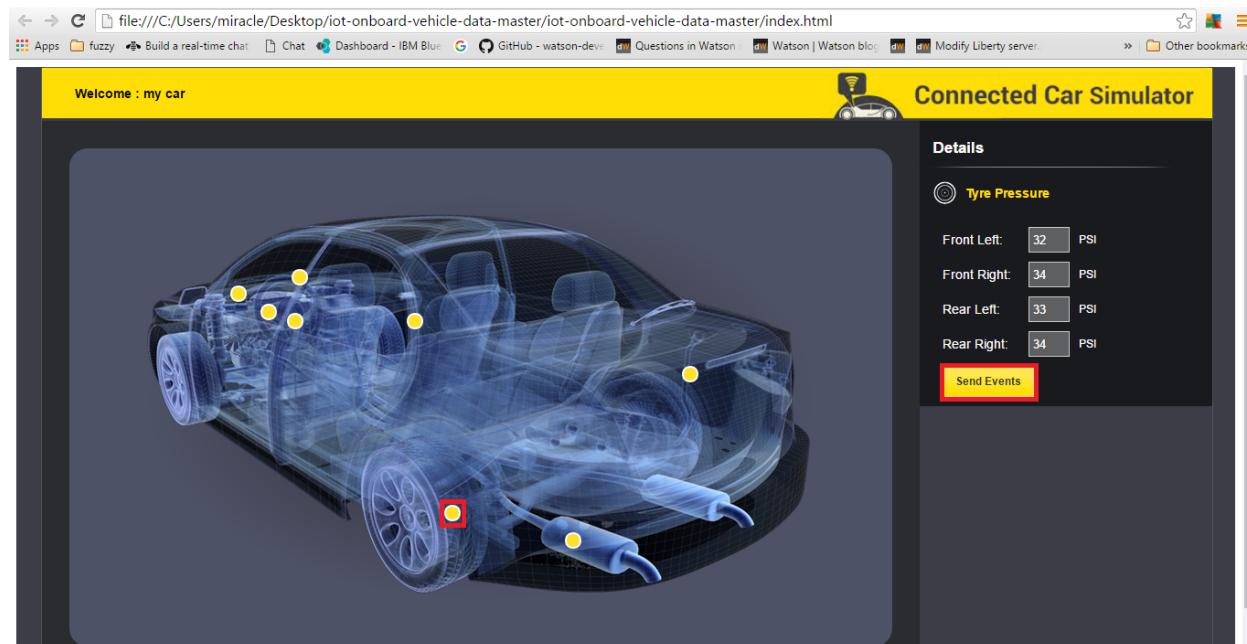
Go to Vehicle Simulator dashboard. Place your mouse control over Fuel sensor. Fuel details will appear on top right corner. Give any number for “Fuel” field and click on “Send Events”.



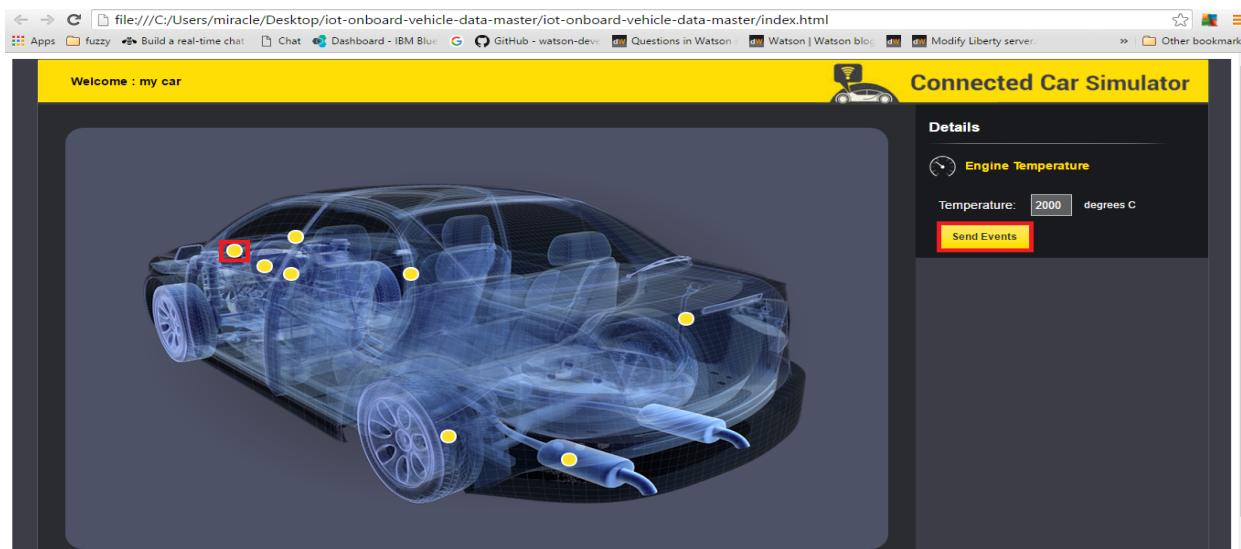
Place your mouse control over **Emission** sensor. Fuel details will appear on top right corner. Give any number for the fields and click on “Send Events”.



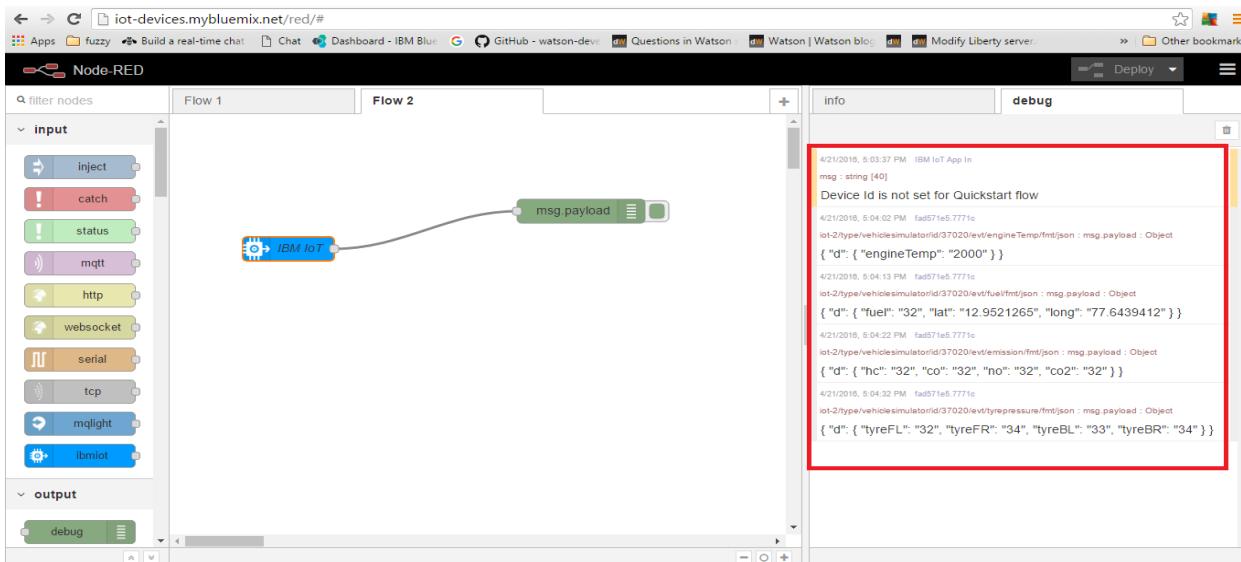
Place your mouse control over **Tire Pressure** sensor. Tire Pressure details will appear on top right corner. Give any number for the fields and click on “Send Events”.



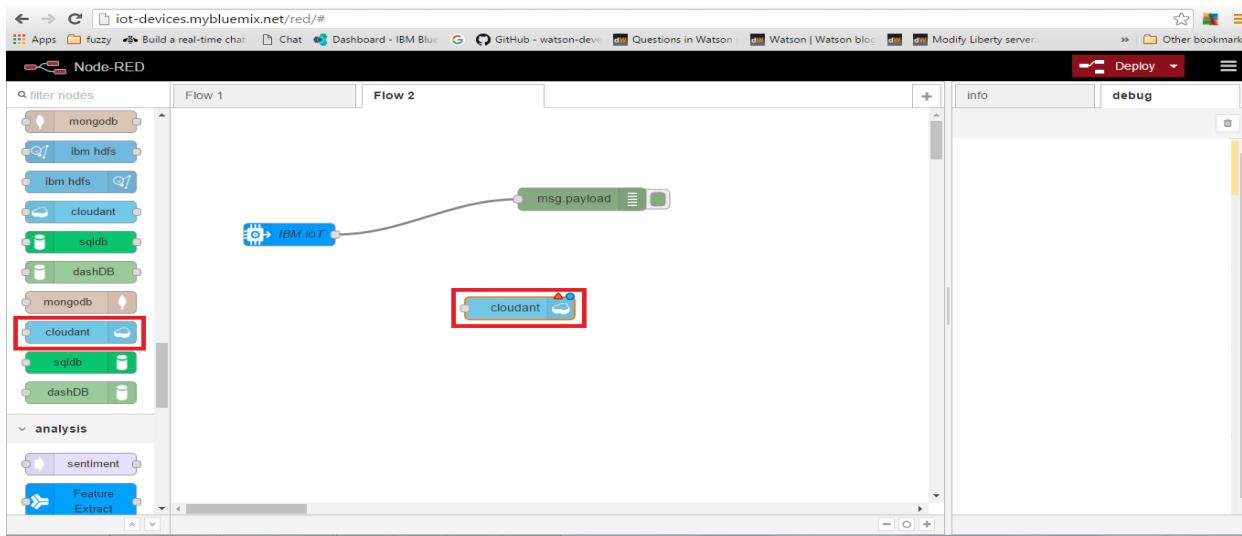
Place your mouse control over **Temperature** sensor. Temperature details will appear on top right corner. Give any number for “Temperature” field and click on “Send Events”.



You can send any number of sensor events. In the below screenshot, you can see all the sensors details such as Fuel, Emission data, Tire Pressure, GPS and Temperature that are sent from the Vehicle Simulator into Node Red.

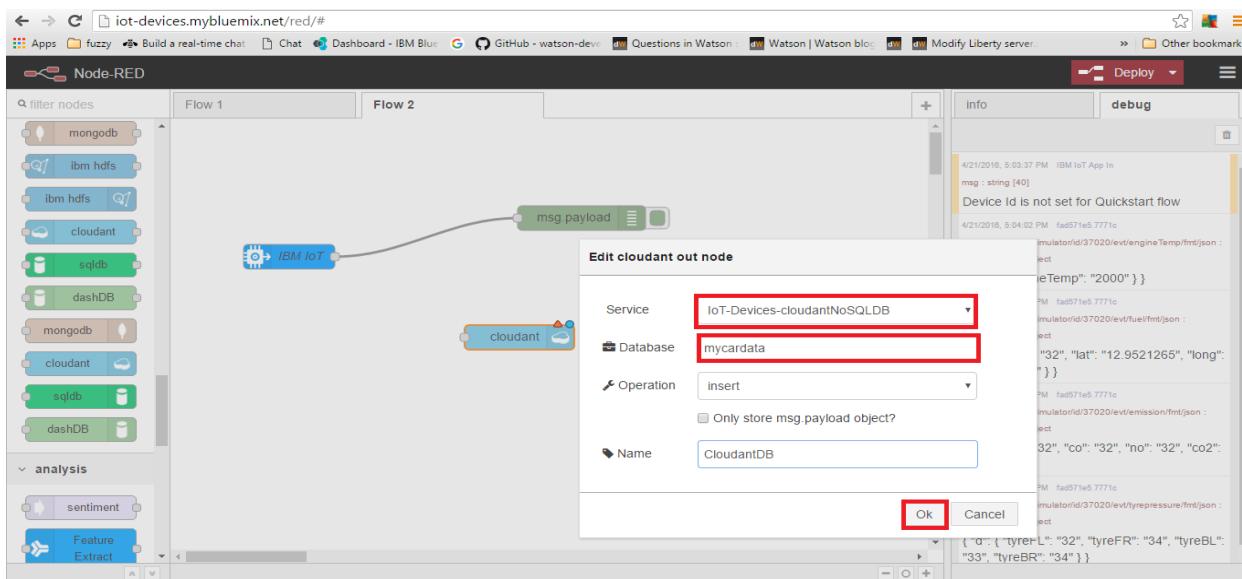


Next, drag and drop a **Cloudant Out Node**.

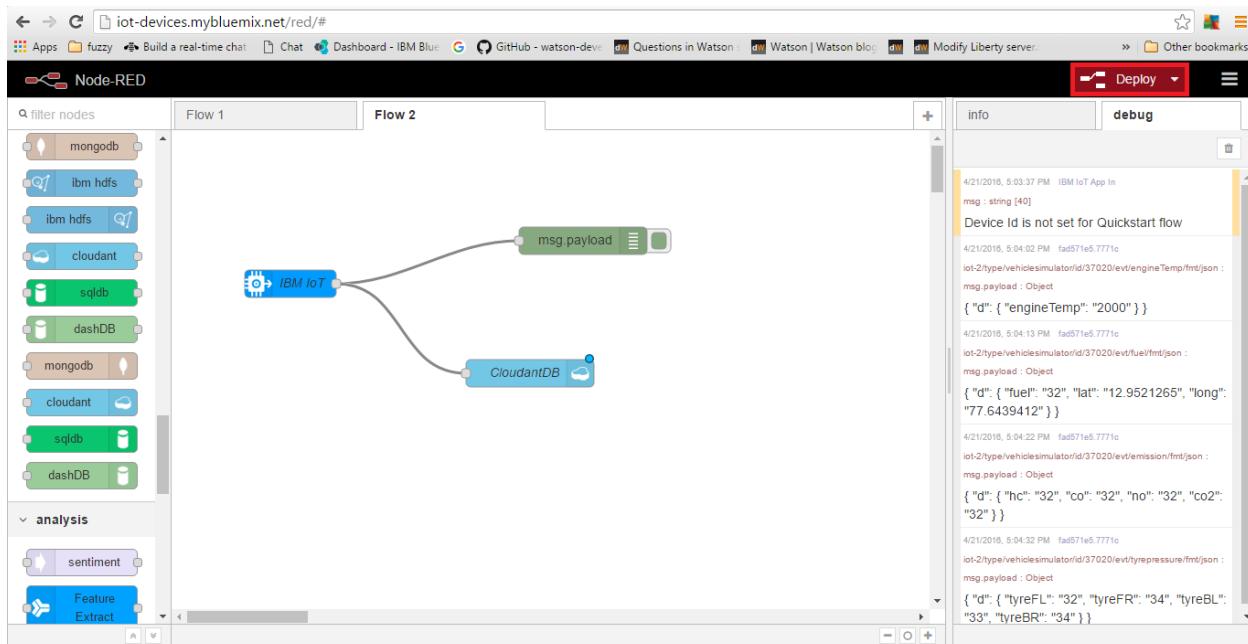


Double click on Cloudant node. Give the following for prompted fields,

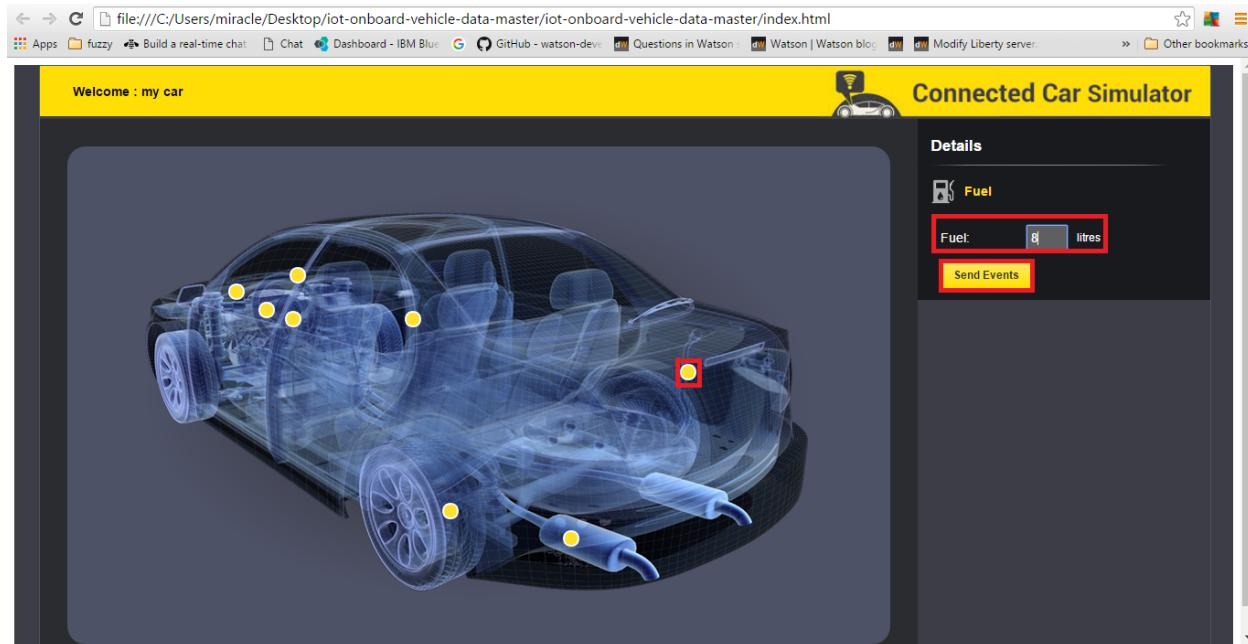
Field	Value
Service	<your-Application-name>
Database	<name of the database to be created in Cloudant>
Operation	Insert
Name	<Any-name-for-the-node>



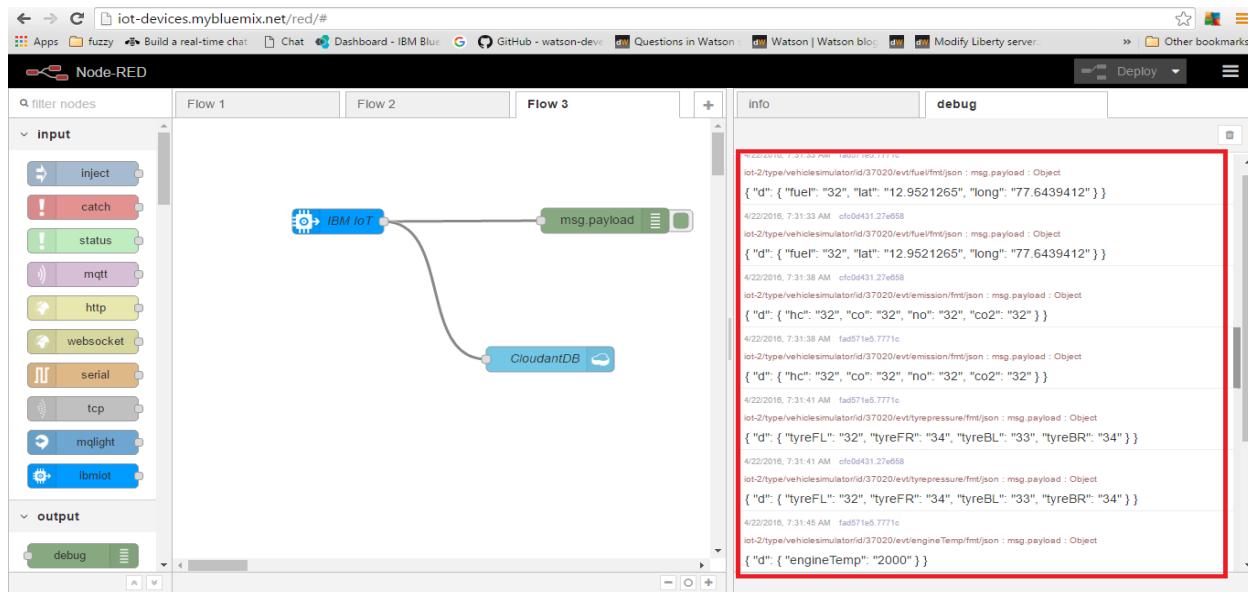
Give connection between IBM IoT node and Cloudant node. Click on “Deploy”.



Go to Vehicle Simulator dashboard. Place your mouse control over **Fuel** sensor. Fuel details will appear on top right corner. Give any number for “Fuel” field and click on “Send Events”.



You can send as many sensor events as you want. When you are done with sending the events, go to Node Red editor. Here you can observe that the sensors data will appear on debug tab.



#8 | Viewing data in Cloudant DB

Go to your Bluemix Dashboard. Click on “Cloudant NoSQL DB” service tile.

Date	Event
2/5/16 9:18 AM	mchirukun@miraclsoft.com started Raspberry-IoT app
2/5/16 9:18 AM	Raspberry-IoT an instance of the app crashed: failed to start
2/5/16 9:18 AM	exit status: -1, CRASHED
2/5/16 9:18 AM	mchirukun@miraclsoft.com stopped Raspberry-IoT app
2/5/16 9:17 AM	Raspberry-IoT an instance of the app crashed: app instance

This will redirect you to “Cloudant NoSQL DB” Dashboard. Click on “Launch”.

The Cloudant NoSQL Database service adds JSON data to your Mobile and Web applications, accessible via easy-to-use RESTful HTTP/S APIs.

Ease of Use

Work with self-describing JSON documents through a RESTful API that makes every document in your Cloudant database accessible as JSON via a URL. Documents can be retrieved, stored, or deleted individually or in bulk and can also have files attached. IBM takes care of the provisioning, management, and scalability of the data store, freeing up your time to focus on your application.

Powerful search, sync and more

With extremely powerful indexing, real time MapReduce and Apache Lucene-based full-text search, Cloudant NoSQL DB makes it easy to add advanced data analytics and powerful data access. Data access can also extend to Cloudant Sync, enabling data access from mobile devices and client apps to run connected or off-line.

Get Started

Click on your database (Name given while configuring Cloudant node in Node Red flow).

Name	Size	# of Docs	Update Seq	Actions
iclab	4.5 KB	42	4	
mycardata	0.9 KB	3	3	
nodered	29.9 KB	4	1	
sample	0 bytes	0	0	

The screenshot shows the IBM Cloudant dashboard for the database 'mycardata'. On the left sidebar, under the 'Databases' section, the 'All Documents' option is highlighted with a red box. In the main content area, two documents are listed:

```

id "083e5b9c4ee3545f53f3a938db5ea4ec"
{
  "_id": "083e5b9c4ee3545f53f3a938db5ea4ec",
  "_rev": "1-4ee816ee2db9f1e81ba1cbe67acdebaa",
  "value": {
    "rev": "1-4ee816ee2db9f1e81ba1cbe67acdebaa"
  },
  "key": "083e5b9c4ee3545f53f3a938db5ea4ec"
}

id "d32756c32a984a851f8ccfb1817dc2a6"
{
  "_id": "d32756c32a984a851f8ccfb1817dc2a6",
  "_rev": "1-fe84eba939f099f43555f990d2692870",
  "value": {
    "rev": "1-fe84eba939f099f43555f990d2692870"
  },
  "key": "d32756c32a984a851f8ccfb1817dc2a6"
}

```

Click on “All Documents” to view all the documents present in that database. Click on “Query Options” at the top right side.

The screenshot shows the same IBM Cloudant dashboard as above, but with the 'Query Options' button at the top right of the main content area highlighted with a red box. A modal dialog box titled 'Query Options' is open, containing the following settings:

- Include Docs
- Keys** (button: By Key(s) or Between Keys)
- Additional Parameters** (Limit: None, Descending, Skip # of rows)
- Query** and **Cancel** buttons

Tick the radio button for “Include Docs”.

The screenshot shows the IBM Cloudant dashboard interface. On the left, there's a sidebar with various options like Databases, Replication, Warehousing, Active Tasks, Account, Support, and Documentation. The main area shows a list of documents under the 'All Documents' section. A modal window titled 'Query Options' is open, containing fields for 'Keys' (with tabs for 'By Key(s)' and 'Between Keys'), 'Additional Parameters' (with 'Limit' set to 'None'), and a 'Query' button. The 'Include Docs' checkbox is checked, and the 'Query' button is highlighted with a red box.

You can view the documents like below. Click on “Edit” icon for any document.

This screenshot shows the same IBM Cloudant dashboard as the previous one, but with a specific document selected. The document's details are displayed in a large central pane. The edit icon (a pencil icon) next to the document ID is highlighted with a red box.

The selected document appears like this,

The screenshot shows a web browser window for the IBM Cloudant dashboard at the URL <https://8a2fe1a5-9c30-4d12-a1a9-3b9412dddf38-bluemix.cloudant.com/dashboard.html#/database/mycardata/083e5b9c4ee3545f53f3a938db5ea4ec>. The page title is "083e5b9c4ee3545f53f3a938db5ea4ec". The left sidebar contains links for Databases, Replication, Warehousing, Active Tasks, Account, Support, and Documentation. The main content area shows a JSON document with the following code:

```
1 - {
2   "_id": "083e5b9c4ee3545f53f3a938db5ea4ec",
3   "_rev": "1-4ee816ee2db9f1e81ba1cb67acdebaa",
4   "topic": "iot-2/type/aaaa/id/456789/evt/fuel/fmt/json",
5   "payload": {
6     "fuel": "88"
7   },
8   "deviceId": "456789",
9   "deviceType": "aaaa",
10  "eventType": "fuel",
11  "format": "json",
12  "msgid": "a6ab41fa.5f54c"
13 }
```

At the top right of the content area are buttons for Save, Cancel, Upload Attachment, Clone Document, and Delete. Below the content area, there are links for IBM Cloudant and Log Out.

You can even edit the document if you want. After editing, just click on “Save”.