

CREATE AND CONFIGURE IBM CLOUD SERVICES

(IBM Watson & Node Red)

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Team ID	PNT2022TMID13985
Project Name	Industry-Specific Intelligent Fire ManagementSystem
Maximum Marks	8 Marks

IBM Watson IoT Platform and Device:

IBM Watson IOT Platform is a cloud-hosted service that makes it simple to derive value from Internet of Things (IOT) devices. Also, a fully managed, cloud-hosted service with capabilities for device registration, connectivity, control, rapid visualization and datastorage.

Recent events

The screenshot displays the IBM Watson IoT Platform interface. On the left, a sidebar contains icons for Identity, Device Information, Recent Events, State, and Logs. The main panel is titled 'Recent Events' and shows a table of events. The table has columns for Event, Value, Format, and Last Received. The events are listed as follows:

Event	Value	Format	Last Received
Default	{ "temp":35.82,"humid":42.52,"pressure":952,"gas..."	json	a few seconds ago
Default	{ "temp":35.88,"humid":42.72,"pressure":950,"gas..."	json	a few seconds ago
Default	{ "temp":35.86,"humid":42.68,"pressure":952,"gas..."	json	a few seconds ago
Default	{ "temp":35.47,"humid":46.44,"pressure":949,"gas..."	json	a few seconds ago
Default	{ "temp":35.77,"humid":43.12,"pressure":950,"gas..."	json	a minute ago

On the right, a configuration window is open, showing a 'Function' tab. It contains a code editor with the following code:

```
1 // Import the Watson IoT SDK  
2 const WatsonIoT = require('watson-iot');  
3  
4 // Initialize the Watson IoT SDK  
5 const client = new WatsonIoT.Client({  
6   url: 'https://api.us.ibmcloud.com',  
7   apikey: 'apikey',  
8   org: 'org',  
9   device: 'device',  
10  });  
11  
12 // Define the function  
13 function main(msg) {  
14   // Send the message to the Watson IoT SDK  
15   client.send(msg).then(() => {  
16     // Log the message  
17     console.log('Message sent successfully');  
18   });  
19 }  
20  
21 // Export the function  
22 exports.main = main;
```

Below the code editor, there is a 'Upload a CSV File' button and a 'What Functions can I create?' link. At the bottom of the window, there are 'Cancel' and 'Save' buttons.

Diagnostic logs

The screenshot shows a web application interface with a sidebar on the left containing various icons. The main content area is divided into two panels. The left panel, titled 'Diagnostic Logs', has a subtitle 'A list of device errors and timestamps detailing when the error occurred.' It contains a table with columns 'Severity', 'Message', and 'Timestamp'. Below the table is a large icon of a person with a gear and a message 'No logs are available.' The right panel, titled 'Connection Logs', has a subtitle 'A list of the connection events reported for this device.' It contains a table with columns 'Message' and 'Timestamp'. The table lists several events: 'Token auth succeeded', 'Closed connection. The connection has completed normally.', and 'Token auth failed'. At the bottom right of the right panel, there is a status indicator '5 Simulations running'.

Severity	Message	Timestamp

Message	Timestamp
Token auth succeeded: ClientID=d886561c0t_device10t_device_3...	Nov 18, 2022 7:12 PM
Closed connection. The connection has completed normally.	Nov 18, 2022 7:00 PM
Token auth succeeded: ClientID=d886561c0t_device10t_device_3...	Nov 18, 2022 6:59 PM
Closed connection. The connection has completed normally.	Nov 18, 2022 6:58 PM
Token auth succeeded: ClientID=d886561c0t_device10t_device_3...	Nov 18, 2022 6:58 PM
Closed connection. The connection has completed normally.	Nov 18, 2022 6:58 PM
Token auth succeeded: ClientID=d886561c0t_device10t_device_3...	Nov 18, 2022 4:52 PM
Closed connection. The connection timed out.	Nov 18, 2022 4:51 PM
Token auth succeeded: ClientID=d886561c0t_device10t_device_3...	
Closed connection. The connection has completed r	

5 Simulations running

The screenshot shows a web application interface with a sidebar on the left. The main content area is titled 'Recent Events' and has a subtitle 'The recent events listed show the live stream of data that is coming and going from this device.' It contains a table with columns 'Event', 'Value', 'Format', and 'Last Received'. The table lists several events, each with a value in JSON format. At the bottom right of the right panel, there is a status indicator '1 Simulation running'.

Event	Value	Format	Last Received
event_1	{"randomNumber":70,"temp":97,"hum":89}	json	a few seconds ago
event_1	{"randomNumber":88,"temp":94,"hum":92}	json	a few seconds ago
event_1	{"randomNumber":30,"temp":91,"hum":85}	json	a few seconds ago
event_1	{"randomNumber":53,"temp":92,"hum":91}	json	a few seconds ago
event_1	{"randomNumber":26,"temp":96,"hum":77}	json	a few seconds ago

1 Simulation running

The screenshot shows a web application interface with a sidebar on the left. The main content area is titled 'Device Drilldown - iot_device_3'. It contains a table with columns 'Property', 'Value', 'Type', 'Event', and 'Last Received'. The table lists several properties: 'temp', 'humid', 'airpurity', 'gaslevel', 'fireDetected', 'noFireDetected', 'working', 'notWorking', and 'Alert...'. At the bottom right of the right panel, there is a status indicator '5 Simulations running'.

Property	Value	Type	Event	Last Received
temp	35.65	Number	Default	a few seconds ago
humid	45.38	Number	Default	a few seconds ago
airpurity	83	Number	Default	a few seconds ago
gaslevel	876	Number	Default	a few seconds ago
fireDetected	Fire Detected	String	Default	a few seconds ago
noFireDetected	Fire not Detected	String	Default	a few seconds ago
working	Device Working	String	Default	a few seconds ago
notWorking	Device not Working	String	Default	a few seconds ago
Alert...	Alarm and Alert Light will b...	String	Default	a few seconds ago

5 Simulations running

The screenshot displays the AWS IoT Device Simulator interface. On the left, a sidebar contains navigation icons. The main panel is titled 'Browse' and shows a list of devices under the 'Device Types' tab. The devices listed are 'iot_device_1', 'iot_device_2', and 'iot_device_3', all with a status of 'Connected'. Below the device list, there are tabs for 'Identity', 'Device Information', and 'Recent Events'. The 'Recent Events' tab is active, showing a table of events with columns 'Event' and 'Value'. The events listed are 'Default' with values like '(\"temp\":35.88,\"humid\":42.72,\"airpurity\":35.66)'. A modal window titled 'Event Payload' is open, displaying a JSON object: {\"temp\": 35.88, \"humid\": 42.69, \"airpurity\": 35.66, \"gaslevel\": 1345, \"location\": \"Room 101\"}. The background shows a 'Device Simulator' window with a table of device classes and firmware versions.