

# Publish Data to the IBM Cloud

Team ID	PNT2022TMID41669
Project Name	Hazardous Area Monitoring for Industrial Plant powered by IoT

WOKWI Simulation using ESP32 and Ultrasonic Sensor:

The screenshot shows the WOKWI web interface. On the left, the 'sketch.ino' file is open, displaying C++ code for an ESP32 connected to an ultrasonic sensor. The code includes comments for IBM Watson IoT credentials and a callback function to publish distance data. On the right, the 'Simulation' window shows a 3D model of the ESP32 and the ultrasonic sensor. A 'Publish' button is visible, and the console output shows the sensor's distance readings (84 cm and 35 cm) being published to the cloud.

IBM WATSON PLATFORM DEVICE-EVENT LOG:

The screenshot displays the IBM Watson IoT Platform dashboard. The 'Browse' tab is selected, showing a list of devices. The device 'ibm-A-4' is highlighted, and its 'Recent Events' are displayed in a table. The table shows a series of distance measurements published by the device.

Event	Value	Format	Last Received
Data	{"Alert Distance":76}	json	a few seconds ago
Data	{"Alert Distance":80}	json	a few seconds ago
Data	{"Alert Distance":73}	json	a few seconds ago
Data	{"Alert Distance":69}	json	a few seconds ago
Data	{"Alert Distance":68}	json	a few seconds ago

## IBM WATSON PLATFORM DEVICE-EVENT PAYLOAD:

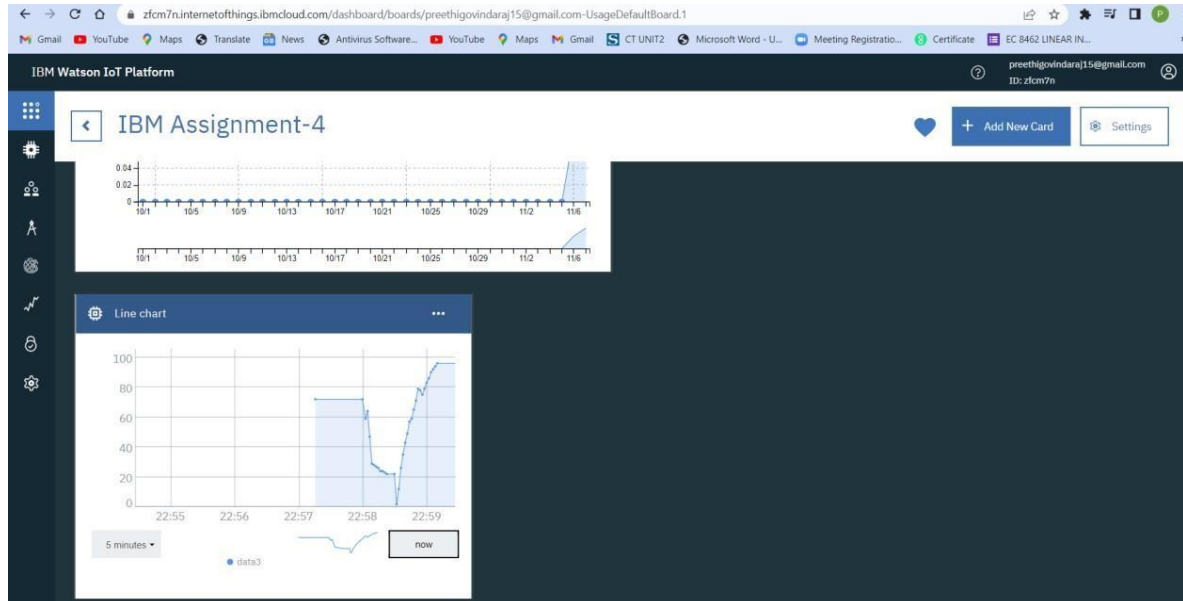
The screenshot displays the IBM Watson IoT Platform interface. A modal window titled "Event Payload" is open, showing the following details:

- Event Name: Data
- Time Received: Nov 7, 2022 10:55 PM
- Event Data (JSON):

```
{  "Alert Distance": 80}
```

The background shows the "Device ID" page for "ibmA-4", which is currently "Disconnected". A table lists recent events, all with the value {"Alert Distance": 80}.

## IBM WATSON PLATFORM DEVICE-BOARD AND GRAPHICAL REPRESENTATION OF DATA FROM WOKWI SIMULATION:



IBM CLOUDANT DB DATA LOG:

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noderedtglmn202...

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All Documents

Query

Permissions

Changes

Design Documents

library

Document ID

Options

{ } JSON

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Create Document

	_id	Gas Sensor	Humidity	Temperature	Alert Distance
<input type="checkbox"/>	02a1d7eee6685d5adcd1...	0	85.5	39.5	
<input type="checkbox"/>	02a1d7eee6685d5adcd1...	1	59	-21.7	
<input type="checkbox"/>	0375c422ec7b856f24d0...				79
<input type="checkbox"/>	0375c422ec7b856f24d0...				86
<input type="checkbox"/>	0375c422ec7b856f24d0...				74
<input type="checkbox"/>	0375c422ec7b856f24d0...				44
<input type="checkbox"/>	0375c422ec7b856f24d0...				83
<input type="checkbox"/>	0375c422ec7b856f24d0...				79
<input type="checkbox"/>	0375c422ec7b856f24d0...				58

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