

## QUESTION:

Develop a python code for publishing random sensor data (Water turbidity, pH values, if required temperature) to the IBM IoT Platform.

The screenshot displays the IBM Watson IoT Platform interface. The main panel shows a list of devices, with one device selected: Device ID 1234567, Status Disconnected, Device Type ESP32\_dist, and Class ID Device. Below the device list, the 'Recent Events' tab is active, showing a table of events. The table has columns for Event, Value, and Format. The events are as follows:

Event	Value	Format
event01	{"Temperature":23,"Ph-value":5,"humidity":86}	json
event01	{"Temperature":36,"Ph-value":2,"humidity":60}	json
event01	{"Temperature":37,"Ph-value":7,"humidity":88}	json
event01	{"Temperature":96,"Ph-value":12,"humidity":65}	json
event01	{"Temperature":91,"Ph-value":9,"humidity":60}	json

On the right side, a 'Simulations' panel is open, showing '1/50 Simulations Running'. It includes a 'New Simulation' button and a 'Device Type' dropdown set to 'ESP32\_dist'. Below this, there is a '1 Device' section with a list of devices, including '1234567'. At the bottom of the simulation panel, it shows '403 events sent' (with 7 failed) and '8.9 KB sent'.

The screenshot displays the configuration window for a new event type in the IBM Watson IoT Platform. The window is titled 'Device Type: ESP32\_dist'. It has a 'New event type +' button. The 'Event type name' is set to 'event01'. The 'Schedule' is set to '20' and 'Every Minute'. The 'Payload' section is active, showing a JSON payload editor. The payload is as follows:

```
{
  "Temperature": random(10,100),
  "Ph-value": random(0,14),
  "humidity": random(0,100)
}
```

At the bottom, there is a 'Upload a CSV file' button and 'Cancel' and 'Save' buttons.