

## Thermostat running locally and saving data to blob storage

### Smart Thermostat Dashboard

Select Device: thermo-001

#### Live Telemetry

Device: thermo-001

Current Temperature: 20.8 °C

Target Temperature: 21 °C

- 21 °C +

Humidity: 41.14%

Pressure: 1016.36 hPa

Heating: ON

Cooling:

#### Temperature Graph

Temperature (°C)

```
def simulate(device_id):
    # simple heating/cooling logic
    heating = True
    cooling = False

    if current_temp[device_id] < target_temp[device_id] - 0.5:
        heating = True
        current_temp[device_id] += 0.4
    elif current_temp[device_id] > target_temp[device_id] + 0.5:
        cooling = True
        current_temp[device_id] -= 0.4

    # small variation
    humidity[device_id] += random.uniform(-0.4, 0.4)
    pressure[device_id] += random.uniform(-1, 1)

    telemetry = {
        "temperature": round(current_temp[device_id], 2),
        "humidity": round(humidity[device_id], 2),
        "pressure": round(pressure[device_id], 2),
        "heating": heating,
        "cooling": cooling,
        "targetTemperature": target_temp[device_id]
    }

    url = f"{API_BASE}/devices/{device_id}/telemetry"
    response = requests.post(url, json=telemetry)

    print(device_id, telemetry, "\n", response.status_code)
```

41.36, 'pressure': 1016.09, 'heating': True, 'cooling': False, 'targetTemperature': 21} → 200  
thermo-002 {'temperature': 19.6, 'humidity': 43.31, 'pressure': 1014.85, 'heating': True, 'cooling': False, 'targetTemperature': 20} → 200  
thermo-001 {'temperature': 20.8, 'humidity': 41.38, 'pressure': 1016.14, 'heating': True, 'cooling': False, 'targetTemperature': 21} → 200  
thermo-002 {'temperature': 19.6, 'humidity': 43.41, 'pressure': 1015.11, 'heating': True, 'cooling': False, 'targetTemperature': 20} → 200  
thermo-001 {'temperature': 20.8, 'humidity': 41.14, 'pressure': 1016.36, 'heating': True, 'cooling': False, 'targetTemperature': 21} → 200  
thermo-002 {'temperature': 19.6, 'humidity': 43.52, 'pressure': 1015.66, 'heating': True, 'cooling': False, 'targetTemperature': 20} → 200

thermostatproject-bndcdmefqbteagf.switzerlandnorth-01.azurewebsites.net/devices/thermo-001/telemetry

Pretty print ☐

```
{"cooling":false,"heating":true,"humidity":41.01,"pressure":1019.18,"targetTemperature":21,"temperature":20.8}
```

thermostatproject-bndcdmefqbteagf.scm.switzerlandnorth-01.azurewebsites.net/api/deployments/d141f51d-22c4-47e0-bdc4-226b28159441

pretty print ☐

```
{
  "id": "d141f51d-22c4-47e0-bdc4-226b28159441",
  "status": "Succeeded",
  "status_text": "",
  "author_email": "N/A",
  "author": "N/A",
  "deployer": "OneDeploy",
  "message": "OneDeploy",
  "progress": "",
  "received_time": "2025-12-16T11:14:34.18841Z",
  "start_time": "2025-12-11T14:56:39.98021Z",
  "end_time": "2025-12-16T11:17:12.1698794Z",
  "start_success_end_time": "2025-12-16T11:17:12.1698794Z",
  "complete": true,
  "active": false,
  "is_temp": false,
  "is_randomly": true,
  "url": "https://thermostatproject-bndcdmefqbteagf.scm.switzerlandnorth-01.azurewebsites.net/api/deployments/d141f51d-22c4-47e0-bdc4-226b28159441/log",
  "site_name": "thermostatproject",
  "build_summary": {
    "errors": [],
    "warnings": []
  }
}
```