

### Step 1 Device Simulator:

- 1) run devsim.py

### Step 2 IoT-hub

- 1) create iot-hub in new resource group
- 2) create new device in this iot-hub
- 3) use connection string in devsim

### Step 3 CosmosDB

- 1) create new cosmosDB
- 2) create db and container(partion key - /timestamp)

### Step 4 Stream Analytics job

- 1) create new Stream Analytics job
- 2) use iot-hub as input
- 3) use cosmosDB as output
- 4) use in a query:

```
SELECT
    CONCAT(sensor_id, '-', timestamp) AS id,
    sensor_id,
    road_name,
    location,
    building_name,
    timestamp,
    pm2_5,
    pm10,
    co2,
    vehicle_count,
    average_speed,
    energy_consumed,
    power_usage
INTO
    [Sensors]
FROM
    [SmartCityHub]
```

### Step 5 Rest api:

- 1) dotnet publish -c Release -o ./publish
- 2) zip folder by yourself
- 3) az webapp deploy --resource-group smartcity --name smartcity-api --src-path ./publish.zip

4) az webapp config appsettings set --name smartcity-api --resource-group smartcity --settings ASPNETCORE\_ENVIRONMENT="Development"

Step 5 Frontend deployment

1) Commit frontend to github

2) Create Static Web App with your github repository