

HERE Geo Enrichment Template

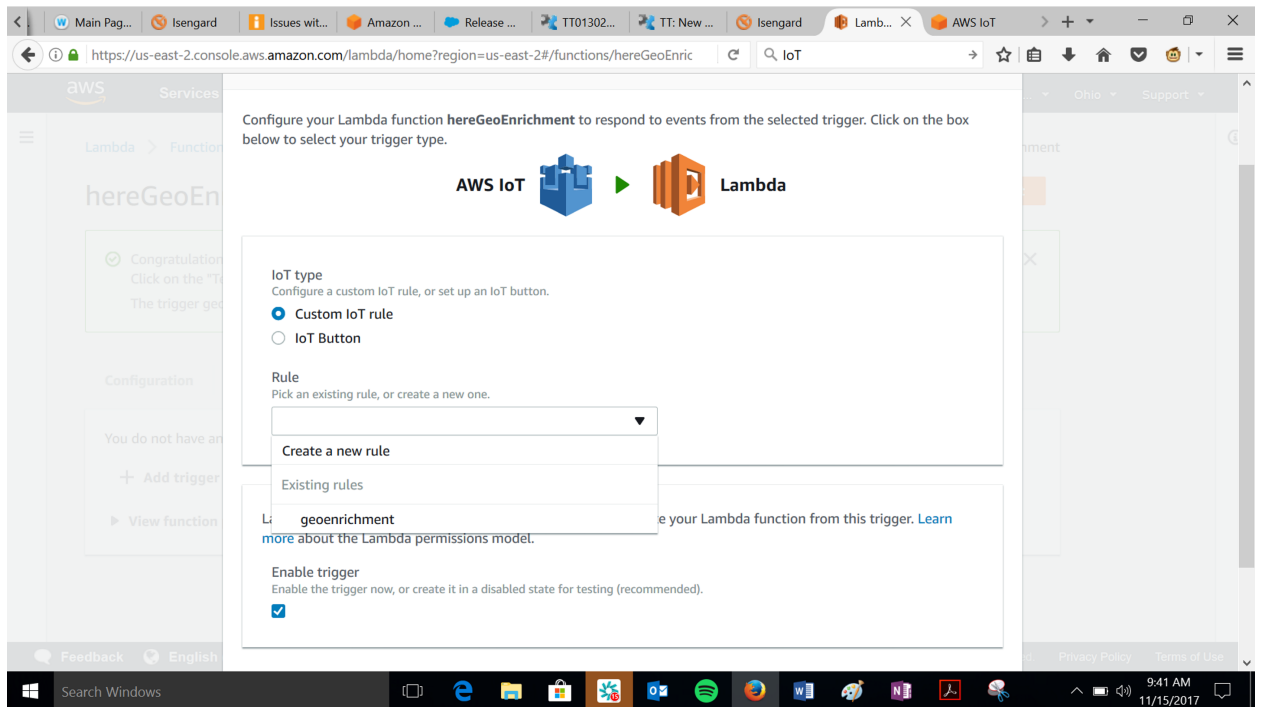
Readme

HERE Technologies provides geo-enrichment services which may be called in AWS IoT rules to enrich IoT messages or take geolocation based actions. This repo provides a python template for a lambda function which may be called from SELECT or WHERE statements of the rule to check if coordinates are inside a geofenced region.

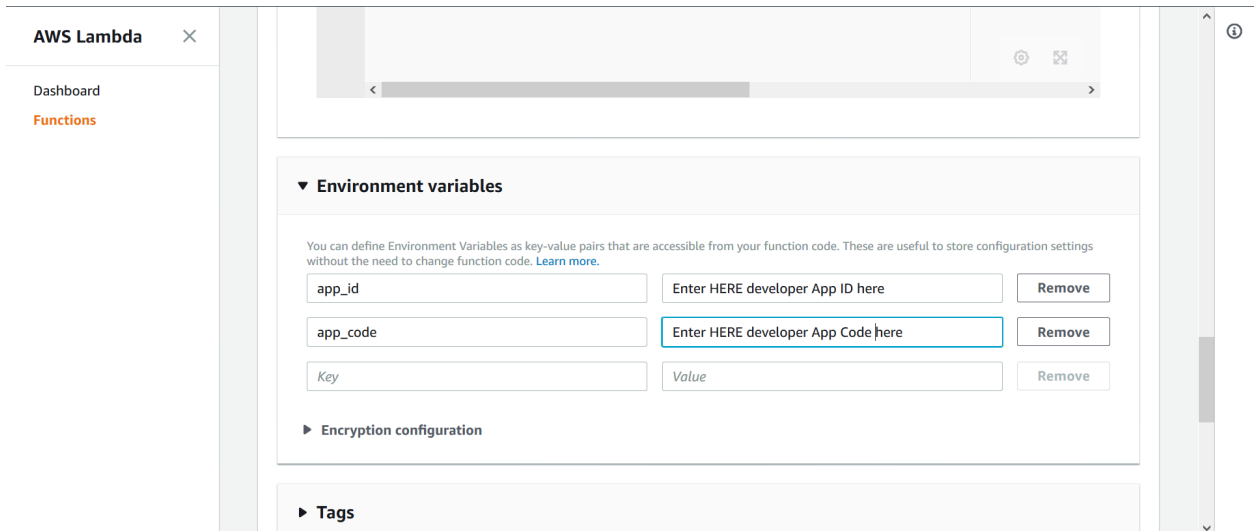
Pre-requisites: HERE developer account, a valid geo-fence layer. Please refer HERE documentation to learn how to upload a layer for geo-fencing.

Set-up:

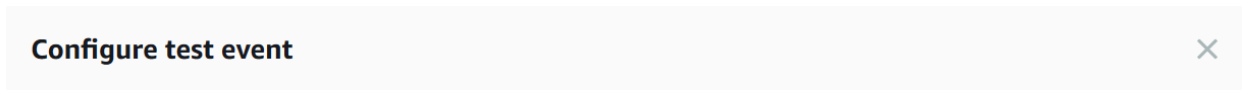
1. Set-up a Lambda Function with Python 2.7
2. In the "Triggers" tab set-up an AWS IoT trigger for your Lambda Function. Select the rule you want to trigger your lambda function from. See next section to learn how to set-up an IoT Rule.



3. Copy the sample code into editor and enter **app_id** and **app_code** as environment variables.



4. Save and Test. Use the following event as the test event:



A function can have up to 10 test events. The events are persisted so you can switch to another computer or web browser and test your function with the same events.

- Create new test event
- Edit saved test events

Saved Test Event

GeoEvent ▼ ↻

```
1 {  
2   "coord": "47.669814, -122.417352",  
3 }
```

Instructions on setting up an IoT Rule

1. Navigate to the **Act** section in the IoT console.
2. Create a Rule, and edit the SQL query to add your Lambda Function as a condition (to the WHERE clause)

Rule query statement

Using SQL version [?](#)

2016-03-23

Rule query statement

```
SELECT 'event' as event FROM 'state' WHERE aws_lambda("arn:aws:lambda:us-east-1:account_id:function:lambda_func
```

Attribute

'event' as event

Topic filter

state

Condition

aws_lambda("arn:aws:lambda:us-east-1:account_id:function:lambda_function", event).geometries.distance < 0

Cancel Update

Note: the “event” variable is assumed to be a JSON structure containing the coordinates (in an attribute “coord”) to be used in the Lambda Function.

3. Configure the Action(s) you wish to take to act on the geofencing information returned by the Lambda Function. Refer the full documentation on AWS IoT Rules [here](#).