TEAM I'd
-PNT2022TMID30411
FINAL CODE
PYTHON CODE:

```
import
wiotp.sdk.device
import time import
jsonmyConfig =
{ "identity": {
"orgId": "crmwpw",
"typeId":
"childdevice",
"deviceId":"CHILD"
},
"auth": {
"token": "1234567890"
}
}
client = wiotp.sdk.device.DeviceClient(config=myConfig,
logHandlers=None)client.connect() while True:
name="smartbridge"
#inarea location
latitude=11.651145
longitude=78.15667
4 #out area location
#latitude=11.651165
#longitude=78.1586
72
myData={'name':name, 'lat':latitude, 'lon':longitude}
client.publishEvent(eventId="status", msgFormat="json", data=myData,
qos=0,onPublish=None)
print("Published data Successfully: %s", myData)
time.sleep(5)client.disconnect()
```

ADDING GEOFENCE:

```
package com.example.geofence; import
android.app.PendingIntent; import
android.content.Context; import
android.content.ContextWrapper; import
android.content.Intent; import android.widget.Toast;
import
com.google.android.gms.common.api.ApiException;
import com.google.android.gms.location.Geofence;
import
com.google.android.gms.location.GeofenceStatusCodes;
import
com.google.android.gms.location.GeofencingRequest;
import com.google.android.gms.maps.model.LatLng;
public class GeofenceHelper extends ContextWrapper
{
private static final String TAG =
"GeofenceHelper";PendingIntent
pendingIntent; public
GeofenceHelper(Context base)
{ super(base);
}
public GeofencingRequest getGeofencingRequest(Geofence geofence)
{
return new GeofencingRequest.Builder()
.addGeofence(geofence)
.setInitialTrigger(GeofencingRequest.INITIAL_TRIGGER_ENTER)
.build(); }
public Geofence getGeofence(String ID, LatLng latLng, float
radius, inttransitionTypes)
{
return new Geofence.Builder()
.setCircularRegion(latLng.latitude, latLng.longitude, radius)
.setRequestId(ID)
.setTransitionTypes(transitionTypes)
.setLoiteringDelay(5000)
.setExpirationDuration(Geofence.NEVER_EXPIRE)
.build();
}
public PendingIntent getPendingIntent()
{
if (pendingIntent != null)
{
return pendingIntent;
```

```
}
```

```
Intent intent = new Intent(this,
GeofenceBroadcastReceiver.class);pendingIntent =
PendingIntent.getBroadcast(this, 2607, intent,
PendingIntent.FLAG_IMMUTABLE);
return pendingIntent;
}
public String getErrorString(Exception e)
{
if (e instanceof ApiException)
{
ApiException apiException = (ApiException) e;
switch(apiException.getStatusCode())
{ case
GeofenceStatusCod
es
.GEOFENCE_NOT_AVAILABLE:
return "GEOFENCE_NOT_AVAILABLE";
caseGeofenceStatusCodes
.GEOFENCE_TOO_MANY_GEOFENCES:
return "GEOFENCE_TOO_MANY_GEOFENCES";
case GeofenceStatusCodes
.GEOFENCE_TOO_MANY_PENDING_INTENTS:
return "GEOFENCE_TOO_MANY_PENDING_INTENTS";
} }
return e.getLocalizedMessage();
```

ALERT NOTIFICATION:

```
package com.example.geofence;
import
android.content.BroadcastReceiver;
importandroid.content.Context; import
android.content.Intent; import
android.location.Location; import
android.os.CountDownTimer;
```

```
import android.util.Log; import
android.widget.Toast;import
com.google.android.gms.location.Geofence;
import
com.google.android.gms.location.GeofencingEvent
importjava.util.List; import android.os.Handler;
public class GeofenceBroadcastReceiver extends BroadcastReceiver
{
private static final String TAG = "GeofenceBroadcastReceiv";
@Overridepublic void onReceive(Context context, Intent intent)
{
// TODO: This method is called when the BroadcastReceiver is
receiving //an Intent broadcast
//. /*
Toast.makeText(context, "GEOFENCE_ENTERED",
Toast.LENGTH_SHORT).show(); final Toast mToastToShow; int
toastDurationInMilliSeconds = 1200000; mToastToShow
= Toast.makeText(context,
"GEOFENCE_EXITED",Toast.LENGTH_LONG);
// Set the countdown to display the toast CountDownTimer
toastCountDown; toastCountDown = new
CountDownTimer(toastDurationInMilliSeconds, 100000)
{
public void onTick(long millisUntilFinished)
{
mToastToShow.show();
}
public void onFinish()
{
mToastToShow.cancel();
}
}; // Show the toast and starts the countdown
mToastToShow.show();toastCountDown.start();*/
NotificationHelper notificationHelper = new NotificationHelper(context);
notificationHelper.sendHighPriorityNotification("GEOFENCE_TRANSITION_
ENT ER","",
MapsActivity.class);
GeofencingEvent geofencingEvent =
GeofencingEvent.fromIntent(intent); if
(geofencingEvent.hasError())
Log.d(TAG, "onReceive: Error receiving geofence
event...");return;
}
List geofenceList = geofencingEvent.getTriggeringGeofences ();
for(Geofence geofence: geofenceList)
{
Log.d(TAG, "onReceive: " + geofence.getRequestId());
}
```

```
// Location location =
geofencingEvent.getTriggeringLocation(); int
transitionType = geofencingEvent.getGeofenceTransition();
switch (transitionType)
{
case Geofence.GEOFENCE_TRANSITION_ENTER:
notificationHelper.sendHighPriorityNotification("Entered the
Location", "",MapsActivity.class); break; case
Geofence.GEOFENCE_TRANSITION_EXIT:
notificationHelper.sendHighPriorityNotification("Exited the
Location ", "",MapsActivity.class);
break; } }
}
```