FINALCODE

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TeamID	PNT2022TMID38017
ProjectName	Project-IoTbasedsafetygadgetforchild safetymonitoringandnotification

AlertNotificationcode

```
packagecom.example.geofence; import
android.content.BroadcastReceiver;imp
ortandroid.content.Context; import
android.content.Intent;import
android.location.Location;import
android.os.CountDownTimer;imp ortandroid.util.Log;
importandroid.widget.Toast;
importcom.google.android.gms.location.Geofence;
import
com.google.android.gms.location.GeofencingEvent;im portjava.util.List;
importandroid.os.Handler;
publicclassGeofenceBroadcastReceiverextendsBroadcastReceiver
{
privatestaticfinalStringTAG=
"GeofenceBroadcastReceiv";@Override
publicvoidonReceive(Contextcontext,Intentintent)
{
//TODO:ThismethodiscalledwhentheBroadcastReceiverisreceiving
//anIntentbroadcast //.
/*Toast.makeText(context,"GEOFENCE_ENTERED",
Toast.LENGTH_SHORT).show();finalToastmToastToShow;
inttoastDurationInMilliSeconds=1200000;
mToastToShow=Toast.makeText(context,"GEOFENCE_EXITED",Toast.LENGTH_LONG);
//Setthecountdowntodisplaythe
toastCountDownTimertoastCountDo
wn;
toastCountDown=newCountDownTimer(toastDurationInMilliSeconds,100000)
{
publicvoidonTick(longmillisUntilFinished)
{
```

```
mToastToShow.show();
}
publicvoidonFinish()
{
mToastToShow.cancel();
}
};
//Showthetoastandstartsthe
countdownmToastToShow.show();toast
CountDown.start();*/
NotificationHelpernotificationHelper=new
NotificationHelper(context);notificationHelper.sendHighPriorityNotification("GEOFENCE_T
RANSITION_ENTER","",MapsActivity.class);
GeofencingEventgeofencingEvent=
GeofencingEvent.fromIntent(intent);if(geofencingEvent.hasError()){
Log.d(TAG,"onReceive:Errorreceivinggeofence event...");return;
}
List<Geofence>geofenceList= geofencingEvent.getTriggeringGeofences();for(Geofencegeofence:
geofenceList)
{
Log.d(TAG,"onReceive:"+geofence.getRequestId());
}
//Locationlocation= geofencingEvent.getTriggeringLocation();int
transitionType=
geofencingEvent.getGeofenceTransition();switch(transitio nType)
{
caseGeofence.GEOFENCE_TRANSITION_ENTER:
notificationHelper.sendHighPriorityNotification("Enteredthe
Location","",MapsActivity.class);
break; case
Geofence.GEOFENCE_TRANSITION_EXIT:notificationHelper.sendHi
ghPriorityNotification("ExitedtheLocation","",MapsActivity.class); break;
}
}
```

Geofence:

```
Package com.example.geofence;import
android.app.PendingIntent;impo rtandroid.content.Context;
import android.content.ContextWrapper;impo
rtandroid.content.Intent; importandroid.widget.Toast; import
com.google.android.gms.common.api.ApiException;i
mportcom.google.android.gms.location.Geofence; import
com.google.android.gms.location.GeofenceStatusCodes;i mport
com.google.android.gms.location.GeofencingRequest;imp
ortcom.google.android.gms.maps.model.LatLng;
publicclassGeofenceHelperextendsContextWrapper
{
privatestaticfinalStringTAG=
"GeofenceHelper";PendingIntentpendingIntent;
publicGeofenceHelper(Contextbase)
{
super(base);
}
publicGeofencingRequest
getGeofencingRequest(Geofencegeofence){
returnnewGeofencingRequest.Builder() .addGeofence(geofence)

.setInitialTrigger(GeofencingRequest.INITIAL_TRIGGER_ENTER)
.build();
}
publicGeofencegetGeofence(StringID,LatLnglatLng,
floatradius,inttransitionTypes)
{
returnnewGeofence.Builder() .setCircularRegion(latLng.latitu
de,latLng.longitude,radius)
.setRequestId(ID)
.setTransitionTypes(transitionTypes)
.setLoiteringDelay(5000)
.setExpirationDuration(Geofence.NEVER_EXPIRE)
```

```
.build();
}
publicPendingIntentgetPendingIntent()
{
if(pendingIntent!=null)
{
returnpendingIntent;
}
Intentintent=new Intent(this,GeofenceBroadcastR
eceiver.class);
pendingIntent=PendingIntent.getBroadcast(this,
2607,intent,PendingIntent.FLAG_IMMUTABLE);
returnpendingIntent;
}
publicStringgetErrorString(Exceptione)
{
if(einstanceofApiException)
{
ApiExceptionapiException= (ApiException)
e;switch(apiException.getStatusCode())
{
caseGeofenceStatusCodes .GEOFENCE_NOT_AVAILABLE:

return"GEOFENCE_NOT_AVAILABLE"; caseGeofenceStatusCodes
.GEOFENCE_TOO_MANY_GEOFENCES:
return"GEOFENCE_TOO_MANY_GEOFENCES";
caseGeofenceStatusCodes
.GEOFENCE_TOO_MANY_PENDING_INTENTS:
return"GEOFENCE_TOO_MANY_PENDING_INTENTS";
}
}
returne.getLocalizedMessage();
}
}
```