```
package com.example.covid_19alertapp.extras;
import android.app.Activity;
import android.content.Intent;
import android.location.Location;
import android.os.Bundle;
import android.os.Handler;
import android.os.ResultReceiver;
import android.util.Log;
import com.example.covid_19alertapp.activities.ShowMatchedLocationsActivity;
public class AddressReceiver extends ResultReceiver {
 // for interface
  private AddressView view;
  private static final String GEO_ADDRESS = "geo_address";
  private static final String GEO_LOCATION = "geo_location";
  private static final String GEO_RECEIVER = "geo_receiver";
  private static final String LIST_POSITION = "position@list";
  public AddressReceiver(Handler handler, AddressView view) {
    super(handler);
    this.view = view;
  }
```

```
@Override
  protected void onReceiveResult(int resultCode, Bundle resultData) {
    if(resultData==null){
      Log.d(LogTags.Address_TAG, "onReceiveResult: null resultData");
      return;
    }
    // receive data from the FetchAddress
    String addressOutput = resultData.getString(GEO_ADDRESS);
    int listPosition = resultData.getInt(LIST_POSITION);
    if(addressOutput==null | | resultCode==FetchAddress.getGeoFailure())
      addressOutput = "no address available (tap to see in map)";
    Log.d(LogTags.Address_TAG,"onReceiveResult: address received = "+addressOutput);
    view.updateAddress(addressOutput, listPosition);
  }
  public void startAddressFetchService(Activity activity, double latitude, double longitude, int
listPosition){
    Location location = new Location("dummy-provider");
    location.setLatitude(latitude);
    location.setLongitude(longitude);
```

```
Intent intent = new Intent(activity.getApplicationContext(), FetchAddress.class);
intent.putExtra(GEO_LOCATION, location);
intent.putExtra(GEO_RECEIVER, this);
intent.putExtra(LIST_POSITION, listPosition);

Log.d(LogTags.Address_TAG, "startAddressFetchService: starting address service for position = "+listPosition);

activity.startService(intent);
}

public interface AddressView{

void updateAddress(String address, int listPosition);
}
```