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package com.example.gil_calvo_odin_pmdm12_tarea
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import android.content.Intent
import android.os.Bundle

import androidx.appcompat.app.AppCompatActivity

import android.widget.ListView

class MainActivity : AppCompatActivity() {

    private lateinit var cityListView: ListView
    private lateinit var cityList: List<City>
    private lateinit var cityAdapter: CityAdapter

    override fun onCreate(savedInstanceState: Bundle?) {
        super.onCreate(savedInstanceState)
        setContentView(R.layout.activity_main)

        cityListView = findViewById(R.id.cityListView)
        cityList = createCityList()
        cityAdapter = CityAdapter(this, cityList)
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        cityListView.adapter = cityAdapter

    }

    private fun createCityList(): List<City> {
        val cities = ArrayList<City>()

        cities.add(City("Bruselas", "Bélgica", "177 307",
R.drawable.bruselas, 50.8467, 4.3547))
        cities.add(City("Budapest", "Hungria", "1 752 704",
R.drawable.budapest, 47.498333, 19.040833))
        cities.add(City("Dublín", "Irlanda", "527 612",
R.drawable.dublin, 53.3425, -6.265833))
        cities.add(City("Florenzia", "Italia", "382 258",
R.drawable.florenzia, 43.771389, 11.254167))
        cities.add(City("París", "Francia", "10 516 110",
R.drawable.paris, 48.856578, 2.351828))
        cities.add(City("Praga", "Chequia", "1 280 508",
R.drawable.praga, 50.088611, 14.421389))
        cities.add(City("Sevilla", "España", "689 434",
R.drawable.sevilla, 37.383333, -5.983333))
        cities.add(City("Viena", "Austria", "1 840 573",
R.drawable.viena, 48.20833, 16.373064))

        return cities
    }

    private fun startMapActivity() {
        val intent = Intent(this, MapActivity::class.java)
        startActivity(intent)
    }
}

<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout
xmlns:android="http://schemas.android.com/apk/res/android"
xmlns:app="http://schemas.android.com/apk/res-auto"
xmlns:tools="http://schemas.android.com/tools"
android:layout_width="match_parent"
android:layout_height="match_parent"
tools:context=".MainActivity">

    <ListView
        android:id="@+id/cityListView"
        android:layout_width="0dp"
        android:layout_height="0dp"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintStart_toStartOf="parent"

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        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintBottom_toBottomOf="parent" />

</androidx.constraintlayout.widget.ConstraintLayout>
package com.example.gil_calvo_odin_pmdm12_tarea

import android.os.Bundle
import androidx.appcompat.app.AppCompatActivity
import com.google.android.gms.maps.CameraUpdateFactory
import com.google.android.gms.maps.GoogleMap
import com.google.android.gms.maps.OnMapReadyCallback
import com.google.android.gms.maps.SupportMapFragment
import com.google.android.gms.maps.model.LatLng
import com.google.android.gms.maps.model.MarkerOptions

class MapActivity : AppCompatActivity(), OnMapReadyCallback {

    private lateinit var mMap: GoogleMap
    private lateinit var cityName: String
    private var cityLatitude: Double = 0.0
    private var cityLongitude: Double = 0.0

    override fun onCreate(savedInstanceState: Bundle?) {
        super.onCreate(savedInstanceState)
        setContentView(R.layout.activity_map)

        // Obtener datos del Intent
        cityName = intent.getStringExtra("CITY_NAME") ?: ""
        cityLatitude = intent.getDoubleExtra("CITY_LATITUDE", 0.0)
        cityLongitude = intent.getDoubleExtra("CITY_LONGITUDE", 0.0)

        // Obtener el SupportMapFragment y configurar el callback
        para cuando el mapa esté listo
        val mapFragment =
supportFragmentManager.findFragmentById(R.id.map) as
SupportMapFragment
        mapFragment.getMapAsync(this)
    }

    override fun onMapReady(googleMap: GoogleMap) {
        mMap = googleMap

        // Crear un objeto LatLng con las coordenadas de la ciudad
        val cityLocation = LatLng(cityLatitude, cityLongitude)

        // Añadir un marcador en la ubicación de la ciudad

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mMap.addMarker(MarkerOptions().position(cityLocation).title(cityName))

        // Mover la cámara del mapa a la ubicación de la ciudad y
        hacer zoom

mMap.moveCamera(CameraUpdateFactory.newLatLngZoom(cityLocation,
12f)) // Zoom level 12 (puedes ajustarlo)
    }
}
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout
xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MapActivity">

    <fragment
        android:id="@+id/map"

android:name="com.google.android.gms.maps.SupportMapFragment"
        android:layout_width="0dp"
        android:layout_height="0dp"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintBottom_toBottomOf="parent" />

</androidx.constraintlayout.widget.ConstraintLayout>
package com.example.gil_calvo_odin_pmdm12_tarea

import android.content.Context
import android.content.Intent
import android.view.LayoutInflater
import android.view.View
import android.view.ViewGroup
import android.widget.ArrayAdapter
import android.widget.ImageView
import android.widget.TextView
import android.app.Dialog // Importa la clase Dialog de
android.app

class CityAdapter(context: Context, private val cities:
List<City>) :

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ArrayAdapter<City>(context, 0, cities) {

    override fun getView(position: Int, convertView: View?, parent:
ViewGroup): View {
        var listItemView = convertView
        if (listItemView == null) {
            listItemView =
LayoutInflater.from(context).inflate(R.layout.list_item_city,
parent, false)
        }

        val currentCity = cities[position]

        val cityImageView =
listItemView!!.findViewById<ImageView>(R.id.cityImageView)
        val cityNameTextView =
listItemView.findViewById<TextView>(R.id.cityNameTextView)
        val cityDetailsTextView =
listItemView.findViewById<TextView>(R.id.cityDetailsTextView)
        val expandImageView =
listItemView.findViewById<ImageView>(R.id.expandImageView)
        val locationImageView =
listItemView.findViewById<ImageView>(R.id.locationImageView)

        cityImageView.setImageResource(currentCity.imageResource)
        cityNameTextView.text = currentCity.name
        cityDetailsTextView.text = "${currentCity.country},
Población: ${currentCity.population}"

        // OnClickListener para el icono de Expandir Imagen
        expandImageView.setOnClickListener {
            showExpandedImageDialog(currentCity)
        }

        // OnClickListener para el icono de Geolocalización
        locationImageView.setOnClickListener {
            openMapActivity(currentCity)
        }

        return listItemView!!
    }

    private fun showExpandedImageDialog(city: City) {
        val dialog = Dialog(context)
        dialog setContentView(R.layout.city_image_dialog)
        val imageView =
dialog.findViewById<ImageView>(R.id.dialogCityImageView)

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        imageView.setImageResource(city.imageResource)
        dialog.show()
    }

    private fun openMapActivity(city: City) {
        val mapIntent = Intent(context, MapActivity::class.java)
        mapIntent.putExtra("CITY_NAME", city.name)
        mapIntent.putExtra("CITY_LATITUDE", city.latitude)
        mapIntent.putExtra("CITY_LONGITUDE", city.longitude)
        context.startActivity(mapIntent)
    }
}

<?xml version="1.0" encoding="utf-8"?>
<LinearLayout
xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:orientation="vertical"
    android:padding="16dp">

    <ImageView
        android:id="@+id/dialogCityImageView"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:adjustViewBounds="true"
        android:scaleType="fitCenter"
        android:src="@drawable/ic_launcher_background"/>
</LinearLayout>

<LinearLayout
xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:orientation="horizontal"
    android:padding="16dp"
    android:gravity="center_vertical">

    <ImageView
        android:id="@+id/cityImageView"
        android:layout_width="80dp"
        android:layout_height="80dp"
        android:scaleType="centerCrop"
        android:src="@drawable/ic_launcher_background"
        android:layout_marginEnd="16dp"/>

    <LinearLayout
        android:layout_width="0dp"
        android:layout_height="wrap_content"

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        android:layout_weight="1"
        android:orientation="vertical">

        <TextView
            android:id="@+id/cityNameTextView"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:textSize="18sp"
            android:textStyle="bold"
            android:text="Nombre de la Ciudad" />

        <TextView
            android:id="@+id/cityDetailsTextView"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:textSize="14sp"
            android:text="País, Población" />
    </LinearLayout>

    <LinearLayout
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:orientation="horizontal"
        android:gravity="center_vertical">

        <ImageView
            android:id="@+id/expandImageView"
            android:layout_width="32dp"
            android:layout_height="32dp"
            android:src="@drawable/ampliar"
            android:layout_marginEnd="8dp"/>

        <ImageView
            android:id="@+id/locationImageView"
            android:layout_width="32dp"
            android:layout_height="32dp"
            android:src="@drawable/mapa"/>
    </LinearLayout>

</LinearLayout>

package com.example.gil_calvo_odin_pmdm12_tarea

data class City(

    val name: String,
    val country: String,
    val population: String,
    val imageResource: Int,

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val latitude: Double,  
val longitude: Double  
)
```