**Android Studio project for mobile application built on cloud based vehicle to vehicle communication:**

**Main Activity:**

**package** com.example.preetismathpati.placepicker;  
  
**import** android.content.Context;  
**import** android.content.SharedPreferences;  
**import** android.support.v7.app.AppCompatActivity;  
**import** android.os.Bundle;  
**import** android.view.View;  
**import** android.widget.Button;  
  
**import** com.android.volley.AuthFailureError;  
**import** com.android.volley.Request;  
**import** com.android.volley.Response;  
**import** com.android.volley.VolleyError;  
**import** com.android.volley.toolbox.StringRequest;  
  
**import** java.util.HashMap;  
**import** java.util.Map;  
  
**public class** Main2Activity **extends** AppCompatActivity {  
 Button **button**;  
 String **app\_server\_url**=**"http://10.0.2.2/placepicker\_test/placepicker\_insert.php"**;  
  
  
 @Override  
 **protected void** onCreate(Bundle savedInstanceState) {  
 **super**.onCreate(savedInstanceState);  
 setContentView(R.layout.***activity\_main2***);  
 **button** = (Button)findViewById(R.id.***button3***);  
 **button**.setOnClickListener(**new** View.OnClickListener()  
 {  
 @Override  
 **public void** onClick(View view){  
 SharedPreferences sharedPreferences = getApplicationContext().getSharedPreferences  
 (getString(R.string.***PLACEPICKER\_PREF***), Context.***MODE\_PRIVATE***);  
 **final** String token = sharedPreferences.getString(getString(R.string.***PLACEPICKER\_TOKEN***),**""**);  
 StringRequest stringRequest =**new** StringRequest(Request.Method.***POST***, **app\_server\_url**,  
 **new** Response.Listener<String>() {  
 @Override  
 **public void** onResponse(String response) {  
  
 }  
 }, **new** Response.ErrorListener() {  
 @Override  
 **public void** onErrorResponse(VolleyError error) {  
  
 }  
 })  
 {  
 @Override  
 **protected** Map<String, String> getParams() **throws** AuthFailureError {  
 Map<String,String> params = **new** HashMap<String,String>();  
 params.put(**"placepicker\_token"**,token);  
  
  
  
 **return** params;  
 }  
 };  
 MySingleton.*getmInstance*(Main2Activity.**this**).addToRequestque(stringRequest);  
  
 }  
 });  
 }  
}

**Main2 Activity:**

**package** com.example.preetismathpati.placepicker;  
  
**import** android.content.Context;  
**import** android.content.SharedPreferences;  
**import** android.support.v7.app.AppCompatActivity;  
**import** android.os.Bundle;  
**import** android.view.View;  
**import** android.widget.Button;  
  
**import** com.android.volley.AuthFailureError;  
**import** com.android.volley.Request;  
**import** com.android.volley.Response;  
**import** com.android.volley.VolleyError;  
**import** com.android.volley.toolbox.StringRequest;  
  
**import** java.util.HashMap;  
**import** java.util.Map;  
  
**public class** Main2Activity **extends** AppCompatActivity {  
 Button **button**;  
 String **app\_server\_url**=**"http://10.0.2.2/placepicker\_test/placepicker\_insert.php"**;  
  
  
 @Override  
 **protected void** onCreate(Bundle savedInstanceState) {  
 **super**.onCreate(savedInstanceState);  
 setContentView(R.layout.***activity\_main2***);  
 **button** = (Button)findViewById(R.id.***button3***);  
 **button**.setOnClickListener(**new** View.OnClickListener()  
 {  
 @Override  
 **public void** onClick(View view){  
 SharedPreferences sharedPreferences = getApplicationContext().getSharedPreferences  
 (getString(R.string.***PLACEPICKER\_PREF***), Context.***MODE\_PRIVATE***);  
 **final** String token = sharedPreferences.getString(getString(R.string.***PLACEPICKER\_TOKEN***),**""**);  
 StringRequest stringRequest =**new** StringRequest(Request.Method.***POST***, **app\_server\_url**,  
 **new** Response.Listener<String>() {  
 @Override  
 **public void** onResponse(String response) {  
  
 }  
 }, **new** Response.ErrorListener() {  
 @Override  
 **public void** onErrorResponse(VolleyError error) {  
  
 }  
 })  
 {  
 @Override  
 **protected** Map<String, String> getParams() **throws** AuthFailureError {  
 Map<String,String> params = **new** HashMap<String,String>();  
 params.put(**"placepicker\_token"**,token);  
  
  
  
 **return** params;  
 }  
 };  
 MySingleton.*getmInstance*(Main2Activity.**this**).addToRequestque(stringRequest);  
  
 }  
 });  
 }  
}

**My Singleton:**

**package** com.example.preetismathpati.placepicker;  
  
**import** android.content.Context;  
  
**import** com.android.volley.Request;  
**import** com.android.volley.RequestQueue;  
**import** com.android.volley.toolbox.Volley;  
  
**public class** MySingleton {  
 **private static** MySingleton *mInstance*;  
 **private static** Context *mCtx*;  
 **private** RequestQueue **requestQueue**;  
  
 **private** MySingleton(Context context) {  
 *mCtx* = context;  
 **requestQueue** = getRequestQueue();  
 }  
  
  
 **private** RequestQueue getRequestQueue() {  
 **if** (**requestQueue** == **null**) {  
 **requestQueue** = Volley.*newRequestQueue*(*mCtx*.getApplicationContext());  
  
 }  
 **return requestQueue**;  
  
 }  
 **public static synchronized** MySingleton getmInstance(Context context){  
 **if**(*mInstance*==**null**)  
 {  
 *mInstance*=**new** MySingleton(context);  
  
 }  
 **return** *mInstance*;  
 }  
 **public**<T> **void** addToRequestque(Request<T> request)  
 {  
 getRequestQueue().add(request);  
 }  
}

**placepickerInstanceIdService:**

**package** com.example.preetismathpati.placepicker;  
  
**import** android.content.SharedPreferences;  
**import** android.content.Context;  
**import** com.google.firebase.iid.FirebaseInstanceId;  
**import** com.google.firebase.iid.FirebaseInstanceIdService;  
  
**public class** placepickerInstanceIdService **extends** FirebaseInstanceIdService{  
 @Override  
 **public void** onTokenRefresh() {  
 String recent\_token = FirebaseInstanceId.*getInstance*().getToken();  
  
 SharedPreferences sharedPreferences = getApplicationContext().getSharedPreferences(getString(R.string.***PLACEPICKER\_PREF***),  
 Context.***MODE\_PRIVATE***);  
 SharedPreferences.Editor editor = sharedPreferences.edit();  
  
 editor.putString(getString(R.string.***PLACEPICKER\_TOKEN***),recent\_token);  
  
 editor.commit();  
  
 }  
}

**placepickerMessagingService:**

**package** com.example.preetismathpati.placepicker;  
  
**import** android.app.Notification;  
**import** android.app.NotificationManager;  
**import** android.app.PendingIntent;  
**import** android.content.Context;  
**import** android.content.Intent;  
**import** android.support.v4.app.NotificationCompat;  
  
**import** com.google.firebase.messaging.FirebaseMessagingService;  
**import** com.google.firebase.messaging.RemoteMessage;  
  
**public class** placepickerMessagingService **extends** FirebaseMessagingService {  
  
 **public void** onMessagingReceived(RemoteMessage remoteMessage){  
 String title =remoteMessage.getNotification().getTitle();  
 String message= remoteMessage.getNotification().getBody();  
  
 Intent intent = **new** Intent(**this**,Main2Activity.**class**);  
 intent.addFlags(Intent.***FLAG\_ACTIVITY\_CLEAR\_TOP***);  
 PendingIntent pendingIntent = PendingIntent.*getActivity*(**this**,0,intent,PendingIntent.***FLAG\_ONE\_SHOT***);  
 NotificationCompat.Builder notificationBuilder = **new** NotificationCompat.Builder(**this**);  
 notificationBuilder.setContentTitle(title);  
 notificationBuilder.setContentText(message);  
 notificationBuilder.setSmallIcon(R.mipmap.***ic\_launcher***);  
 notificationBuilder.setAutoCancel(**true**);  
 notificationBuilder.setContentIntent(pendingIntent);  
 NotificationManager notificationManager= (NotificationManager) getSystemService(Context.***NOTIFICATION\_SERVICE***);  
 notificationManager.notify(0,notificationBuilder.build());  
  
 }  
}

**Register Activity:**

**package** com.example.preetismathpati.placepicker;  
  
**import** android.content.Intent;  
**import** android.support.v7.app.AppCompatActivity;  
**import** android.os.Bundle;  
**import** android.view.View;  
**import** android.widget.Button;  
**import** android.widget.EditText;  
**import** android.widget.TextView;  
**import** android.widget.Toast;  
  
**public class** RegisterActivity **extends** AppCompatActivity {  
 DatabaseHelper **db**;  
 EditText **mTextUsername**;  
 EditText **mTextPassword**;  
 EditText **mTextCnfPassword**;  
 Button **mButtonRegister**;  
 TextView **mTextViewLogin**;  
 @Override  
 **protected void** onCreate(Bundle savedInstanceState) {  
 **super**.onCreate(savedInstanceState);  
 setContentView(R.layout.***activity\_register***);  
 **db** = **new** DatabaseHelper(**this**);  
 **mTextUsername**=(EditText)findViewById(R.id.***edittext\_username***);  
 **mTextPassword**=(EditText)findViewById(R.id.***edittext\_password***);  
 **mTextCnfPassword**=(EditText)findViewById(R.id.***edittext\_cnf\_password***);  
 **mButtonRegister**=(Button)findViewById(R.id.***button\_register***);  
 **mTextViewLogin**=(TextView)findViewById(R.id.***textview\_login***);  
 **mTextViewLogin**.setOnClickListener(**new** View.OnClickListener() {  
 @Override  
 **public void** onClick(View v) {  
 Intent LoginIntent =**new** Intent(RegisterActivity.**this**, LoginActivity.**class**);  
 startActivity(LoginIntent);  
 }  
 });  
 **mButtonRegister**.setOnClickListener(**new** View.OnClickListener() {  
 @Override  
 **public void** onClick(View v) {  
 String user = **mTextUsername**.getText().toString().trim();  
 String pwd = **mTextPassword**.getText().toString().trim();  
 String cn\_pwd = **mTextCnfPassword**.getText().toString().trim();  
  
 **if** (pwd.equals(cn\_pwd))  
  
 {  
 **long** val = **db**.addUser(user, pwd);  
 **if** (val > 0) {  
  
 Toast.*makeText*(RegisterActivity.**this**, **"You have registered"**, Toast.***LENGTH\_SHORT***).show();  
  
 Intent moveToLogin = **new** Intent(RegisterActivity.**this**, LoginActivity.**class**);  
 startActivity(moveToLogin);  
 } **else** {  
 Toast.*makeText*(RegisterActivity.**this**, **"Registration error"**, Toast.***LENGTH\_SHORT***).show();  
  
  
 }  
 }**else** {  
 Toast.*makeText*(RegisterActivity.**this**, **"Password is not matching"**, Toast.***LENGTH\_SHORT***).show();  
 }  
  
 }  
 });  
  
 }  
}

Login Activity:

**package** com.example.preetismathpati.placepicker;  
  
**import** android.content.Intent;  
**import** android.support.v7.app.AppCompatActivity;  
**import** android.os.Bundle;  
**import** android.view.View;  
**import** android.widget.Button;  
**import** android.widget.EditText;  
**import** android.widget.TextView;  
**import** android.widget.Toast;  
  
**public class** LoginActivity **extends** AppCompatActivity {  
 EditText **mTextUsername**;  
 EditText **mTextPassword**;  
 Button **mButtonLogin**;  
 TextView **mTextViewRegister**;  
 DatabaseHelper **db**;  
 @Override  
 **protected void** onCreate(Bundle savedInstanceState) {  
 **super**.onCreate(savedInstanceState);  
 setContentView(R.layout.***activity\_login***);  
 **db** = **new** DatabaseHelper(**this**);  
 **mTextUsername** =(EditText) findViewById(R.id.***edittext\_username***);  
 **mTextPassword** =(EditText) findViewById(R.id.***edittext\_password***);  
 **mButtonLogin** =(Button) findViewById(R.id.***button\_login***);  
  
  
 **mTextViewRegister** =(TextView) findViewById(R.id.***textview\_register***);  
 **mTextViewRegister**.setOnClickListener(**new** View.OnClickListener() {  
 @Override  
 **public void** onClick(View v) {  
 Intent registerIntent=**new** Intent(LoginActivity.**this**,RegisterActivity.**class**);  
 startActivity(registerIntent);  
 }  
 });  
 **mButtonLogin**.setOnClickListener(**new** View.OnClickListener() {  
 @Override  
 **public void** onClick(View v) {  
 String user = **mTextUsername**.getText().toString().trim();  
 String pwd = **mTextPassword**.getText().toString().trim();  
 Boolean res = **db**.checkUser(user, pwd);  
 **if** (res == **true**) {  
 Toast.*makeText*(LoginActivity.**this**, **"Successfully Logged In"**, Toast.***LENGTH\_SHORT***).show();  
 Intent mapIntent=**new** Intent(LoginActivity.**this**, MapActivity.**class**);  
 startActivity(mapIntent);  
  
 } **else** {  
 Toast.*makeText*(LoginActivity.**this**, **"Login error"**, Toast.***LENGTH\_SHORT***).show();  
 }  
 }  
 });  
  
 }  
}

Map Activity:

**package** com.example.preetismathpati.placepicker;  
  
**import** android.content.Context;  
**import** android.content.Intent;  
**import** android.content.pm.PackageManager;  
**import** android.location.Address;  
**import** android.location.Geocoder;  
**import** android.location.Location;  
**import** android.location.LocationListener;  
**import** android.location.LocationManager;  
**import** android.support.v4.app.ActivityCompat;  
**import** android.support.v4.content.ContextCompat;  
**import** android.support.v7.app.AppCompatActivity;  
**import** android.os.Bundle;  
**import** android.view.View;  
**import** android.webkit.WebView;  
**import** android.widget.Button;  
**import** android.widget.TextView;  
**import** android.widget.Toast;  
  
**import** java.util.List;  
**import** java.util.Locale;  
  
**public class** MapActivity **extends** AppCompatActivity **implements** LocationListener {  
 LocationManager **locationManager**;  
 TextView **placeNameText**;  
 TextView **placeaddressText**;  
 WebView **attributionText**;  
 Button **getPlaceButton**;  
 Button **log\_out**;  
 **private final static int *MY\_PERMISSION\_FINE\_LOCATION*** = 101;  
 **private final static int *PLACE\_PICKER\_REQUEST***=1;  
 **void** getLocation() {  
 **try** {  
 **locationManager** = (LocationManager) getSystemService(Context.***LOCATION\_SERVICE***);  
 **locationManager**.requestLocationUpdates(LocationManager.***NETWORK\_PROVIDER***, 5000, 5, **this**);  
 }  
 **catch**(SecurityException e) {  
 e.printStackTrace();  
 }  
 }  
 @Override  
 **public void** onStatusChanged(String provider, **int** status, Bundle extras) {  
  
 }  
  
 @Override  
 **public void** onProviderDisabled(String provider) {  
 Toast.*makeText*(MapActivity.**this**, **"Please Enable GPS and Internet"**, Toast.***LENGTH\_SHORT***).show();  
 }  
  
  
 @Override  
 **public void** onProviderEnabled(String provider) {  
  
 }  
  
 @Override  
 **public void** onLocationChanged(Location location) {  
 **placeNameText**.setText(**"Latitude: "** + location.getLatitude() + **"\n Longitude: "** + location.getLongitude());  
  
 **try** {  
 Geocoder geocoder = **new** Geocoder(**this**, Locale.*getDefault*());  
 List<Address> addresses = geocoder.getFromLocation(location.getLatitude(), location.getLongitude(), 1);  
 **placeNameText**.setText(**placeNameText**.getText() + **"\n"**+addresses.get(0).getAddressLine(0)+**", "**+  
 addresses.get(0).getAddressLine(1)+**", "**+addresses.get(0).getAddressLine(2));  
 *//String temp = placeNameText.toString();  
 //temp = temp.replace(", null","");  
 //Toast.makeText(this, temp, Toast.LENGTH\_SHORT).show();  
 //placeNameText.setText(temp);* }**catch**(Exception e)  
 {  
  
 }  
  
  
 }  
 @Override  
 **protected void** onCreate(Bundle savedInstanceState) {  
 **super**.onCreate(savedInstanceState);  
 setContentView(R.layout.***activity\_map***);  
 **if** (ContextCompat.*checkSelfPermission*(getApplicationContext(), android.Manifest.permission.***ACCESS\_FINE\_LOCATION***) != PackageManager.***PERMISSION\_GRANTED*** && ActivityCompat.*checkSelfPermission*(getApplicationContext(), android.Manifest.permission.***ACCESS\_COARSE\_LOCATION***) != PackageManager.***PERMISSION\_GRANTED***) {  
  
 ActivityCompat.*requestPermissions*(**this**, **new** String[]{android.Manifest.permission.***ACCESS\_FINE\_LOCATION***, android.Manifest.permission.***ACCESS\_COARSE\_LOCATION***}, 101);  
  
 }  
  
 *//requestPermission()* **log\_out**=(Button)findViewById(R.id.***button3***);  
 **placeNameText** = (TextView) findViewById(R.id.***tvPlaceName***);  
 **placeaddressText** = (TextView) findViewById(R.id.***tvPlaceAddress***);  
 **attributionText** = (WebView) findViewById(R.id.***wvAttribution***);  
 **getPlaceButton** = (Button) findViewById(R.id.***btGetPlace***);  
 **getPlaceButton**.setOnClickListener(**new** View.OnClickListener() {  
 @Override  
 **public void** onClick(View view) {  
 getLocation();  
  
  
 }  
 });  
 **log\_out**.setOnClickListener(**new** View.OnClickListener() {  
 @Override  
 **public void** onClick(View v) {  
 Intent log=**new** Intent(MapActivity.**this**,LoginActivity.**class**);  
 startActivity(log);  
 }  
 });  
  
 }  
  
  
}

Database helper:

**package** com.example.preetismathpati.placepicker;  
  
**import** android.content.ContentValues;  
**import** android.content.Context;  
**import** android.database.Cursor;  
**import** android.database.sqlite.SQLiteDatabase;  
**import** android.database.sqlite.SQLiteOpenHelper;  
  
**public class** DatabaseHelper **extends** SQLiteOpenHelper {  
 **public static final** String ***DATABSE\_NAME***=**"register.db"**;  
 **public static final** String ***TABLE\_NAME***=**"registeruser"**;  
 **public static final** String ***COL\_1*** =**"ID"**;  
 **public static final** String ***COL\_2*** =**"username"**;  
 **public static final** String ***COL\_3*** =**"password"**;  
  
 **public** DatabaseHelper(Context context) {  
 **super**(context, ***DATABSE\_NAME***, **null**, 1);  
 }  
  
 @Override  
 **public void** onCreate(SQLiteDatabase db) {  
 db.execSQL(**"CREATE TABLE registeruser (ID INTEGER Primary KEY AUTOINCREMENT, username TEXT, password TEXT )"**);  
 }  
  
 @Override  
 **public void** onUpgrade(SQLiteDatabase db, **int** oldVersion, **int** newVersion) {  
 db.execSQL(**"DROP TABLE IF EXISTS "** + ***TABLE\_NAME***);;  
 onCreate(db);  
  
 }  
 **public long** addUser(String user, String password){  
 SQLiteDatabase db =**this**.getWritableDatabase();  
 ContentValues contentValues = **new** ContentValues();  
 contentValues.put(**"username"**,user);  
 contentValues.put(**"password"**,password);  
 **long** res = db.insert(**"registeruser"**, **null**,contentValues);  
 db.close();  
 **return** res;  
  
  
 }  
 **public boolean** checkUser(String username, String password)  
 {  
 String[] columns ={***COL\_1***};  
 SQLiteDatabase db = getReadableDatabase();  
 String selection = ***COL\_2*** + **"=?"** + **"and "** +***COL\_3*** + **"=?"**;  
 String[] selectionArgs = {username,password};  
 Cursor cursor = db.query(***TABLE\_NAME***,columns,selection,selectionArgs,**null**,**null**,**null**);  
 **int** count =cursor.getCount();  
 cursor.close();  
 db.close();  
  
 **if**(count>0)  
 **return true**;  
 **else  
 return false**;  
 }  
}

1st Page:

Design:

*<?***xml version="1.0" encoding="utf-8"***?>*<**android.support.constraint.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"**>  
  
 <**TextView  
 android:id="@+id/textView"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Login Page"  
 app:layout\_constraintTop\_toTopOf="parent"  
 android:layout\_marginTop="20dp"  
 android:layout\_marginLeft="8dp"  
 app:layout\_constraintLeft\_toLeftOf="parent"  
 android:layout\_marginRight="8dp"  
 app:layout\_constraintRight\_toRightOf="parent"  
 android:layout\_marginStart="8dp"  
 android:layout\_marginEnd="8dp"** />  
  
 <**EditText  
 android:id="@+id/etName"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:ems="10"  
 android:hint="Name"  
 android:inputType="textPersonName"  
 android:layout\_marginTop="20dp"  
 app:layout\_constraintTop\_toBottomOf="@+id/textView"  
 android:layout\_marginLeft="8dp"  
 app:layout\_constraintLeft\_toLeftOf="parent"  
 android:layout\_marginRight="8dp"  
 app:layout\_constraintRight\_toRightOf="parent"  
 android:layout\_marginStart="8dp"  
 android:layout\_marginEnd="8dp"** />  
  
 <**EditText  
 android:id="@+id/etEmail"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:ems="10"  
 android:hint="Email"  
 android:inputType="textPersonName"  
 android:layout\_marginTop="15dp"  
 app:layout\_constraintTop\_toBottomOf="@+id/etName"  
 android:layout\_marginLeft="8dp"  
 app:layout\_constraintLeft\_toLeftOf="parent"  
 android:layout\_marginRight="8dp"  
 app:layout\_constraintRight\_toRightOf="parent"  
 android:layout\_marginStart="8dp"  
 android:layout\_marginEnd="8dp"** />  
  
 <**EditText  
 android:id="@+id/etPassword"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:ems="10"  
 android:hint="Password"  
 android:inputType="textPersonName"  
 android:layout\_marginTop="15dp"  
 app:layout\_constraintTop\_toBottomOf="@+id/etEmail"  
 android:layout\_marginLeft="8dp"  
 app:layout\_constraintLeft\_toLeftOf="parent"  
 android:layout\_marginRight="8dp"  
 app:layout\_constraintRight\_toRightOf="parent"  
 android:layout\_marginStart="8dp"  
 android:layout\_marginEnd="8dp"** />  
  
 <**Button  
 android:id="@+id/signin"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginTop="30dp"  
 android:text="Sign In"  
 app:layout\_constraintLeft\_toLeftOf="parent"  
 app:layout\_constraintRight\_toLeftOf="@+id/signup"  
 app:layout\_constraintTop\_toBottomOf="@+id/etPassword"** />  
  
 <**Button  
 android:id="@+id/signup"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginEnd="8dp"  
 android:layout\_marginLeft="8dp"  
 android:layout\_marginRight="8dp"  
 android:layout\_marginStart="8dp"  
 android:layout\_marginTop="30dp"  
 android:text="Sign Up"  
 app:layout\_constraintLeft\_toRightOf="@+id/signin"  
 app:layout\_constraintRight\_toRightOf="parent"  
 app:layout\_constraintTop\_toBottomOf="@+id/etPassword"** />  
  
</**android.support.constraint.ConstraintLayout**>

2nd page

Design:

*<?***xml version="1.0" encoding="utf-8"***?>*<**android.support.constraint.ConstraintLayout  
 xmlns:android="http://schemas.android.com/apk/res/android"  
 xmlns:tools="http://schemas.android.com/tools"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"**>  
  
 <**TextView  
 android:id="@+id/tvName"  
 app:layout\_constraintHorizontal\_bias="0.501"  
 app:layout\_constraintLeft\_toLeftOf="parent"  
 app:layout\_constraintRight\_toRightOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="0dp"  
 android:text="Welcome"  
 tools:layout\_editor\_absoluteX="131dp"  
 tools:layout\_editor\_absoluteY="55dp"** />  
  
 <**Button  
 android:id="@+id/signout"  
 app:layout\_constraintLeft\_toLeftOf="parent"  
 app:layout\_constraintRight\_toRightOf="parent"  
 app:layout\_constraintTop\_toBottomOf="@+id/tvName"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Sign Out"  
 tools:layout\_editor\_absoluteX="114dp"  
 tools:layout\_editor\_absoluteY="110dp"** />  
  
 <**Button  
 android:id="@+id/upload"  
 app:layout\_constraintLeft\_toLeftOf="parent"  
 app:layout\_constraintRight\_toRightOf="parent"  
 app:layout\_constraintTop\_toBottomOf="@+id/signout"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Upload your data"  
 tools:layout\_editor\_absoluteX="86dp"  
 tools:layout\_editor\_absoluteY="191dp"** />  
  
 <**Button  
 android:id="@+id/show\_data"  
 app:layout\_constraintHorizontal\_bias="0.505"  
 app:layout\_constraintLeft\_toLeftOf="parent"  
 app:layout\_constraintRight\_toRightOf="parent"  
 app:layout\_constraintTop\_toBottomOf="@+id/upload"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Show Uploaded Data"  
 tools:layout\_editor\_absoluteX="78dp"  
 tools:layout\_editor\_absoluteY="250dp"** />  
  
 <**Button  
 android:id="@+id/notification"  
 app:layout\_constraintLeft\_toLeftOf="parent"  
 app:layout\_constraintRight\_toRightOf="parent"  
 app:layout\_constraintTop\_toBottomOf="@+id/show\_data"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Send Notification"  
 tools:layout\_editor\_absoluteX="100dp"  
 tools:layout\_editor\_absoluteY="326dp"** />  
  
  
</**android.support.constraint.ConstraintLayout**>

**Design for map button:**

*<?***xml version="1.0" encoding="utf-8"***?>*<**RelativeLayout 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:id="@+id/activity\_main"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 android:paddingBottom="16dp"  
 android:paddingLeft="16dp"  
 android:paddingRight="16dp"  
 android:paddingTop="16dp"  
 tools:context=".MainActivity"**>  
 <**Button  
 android:id="@+id/btGetPlace"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_alignParentTop="true"  
 android:layout\_centerHorizontal="true"  
 android:text="Get Place"**/>  
  
 <**TextView  
 android:id="@+id/tvPlaceName"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_below="@+id/btGetPlace"  
 android:layout\_marginTop="80dp"  
 android:text="Place Name"  
 android:textSize="16dp"  
 android:textStyle="bold"** />  
 <**TextView  
 android:id="@+id/tvPlaceAddress"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_below="@+id/tvPlaceName"  
 android:text="Place Address"  
 android:textSize="16dp"  
 android:textStyle="bold"**/>  
 <**WebView  
 android:id="@+id/wvAttribution"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_alignParentBottom="true"  
 android:layout\_alignParentLeft="true"  
 android:text="Attribution"  
 android:textSize="16dp"**/>  
  
 <**Button  
 android:id="@+id/button2"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_centerInParent="true"  
 android:text=" Submit to cloud"** />  
  
  
</**RelativeLayout**>

**PHP files for phpMyAdmin:**

**Init.php**

<?php

$host = "localhost";

$db\_user = "root";

$db\_password = "";

$db\_name = "placepicker\_db";

$con = mysqli\_connect($host,$db\_user,$db\_password,$db\_name);

if($con)

echo "Connection Success....";

else

echo "Connection Error....";

?>

**Placepicker.insert.php:**

<?php

require "init.php";

$placepicker\_token=$\_POST["placepicker\_token"];

$sql="insert into placepicker\_info values('".$placepicker\_token."');";

mysqli\_query($con,$sql);

mysqli\_close($con);

?>

**Send\_notificationpp.php**

<?php

require "init.php";

$message=$\_POST['message'];

$title=$\_POST['title'];

$path\_to\_placepicker='https://placepicker.googleapis.com/placepicker/send';

$server\_key="AAAA4IAncFw:APA91bEkoOkWegGOUf3XkDbMGhrSbkHLMG6j\_hDPLwebrD0YH5ssI6qYQAndguHTORQ6YMkHobE-VVscdVgjnhBJ7PVBiVkFxbBtqcwjWdY1IzwvcaJO8gHM2lt\_5W48kLVWj\_e1PKxf";

$sql="select placepicker\_token from placepicker\_info";

$result=mysqli\_query($con,$sql);

$row=mysqli\_fetch\_row($result);

$key=$row[0];

$headers=array(

'Authorization:key='.$server\_key,

'Content-Type:application/json'

);

$fields=array('to'=>$key,

'notification'=>array('title'=>$title,'body'=>$message));

$payload = json\_encode($fields);

$curl\_session = curl\_init();

curl\_setopt($curl\_session, CURLOPT\_URL, $path\_to\_placepicker);

curl\_setopt($curl\_session, CURLOPT\_POST, true);

curl\_setopt($curl\_session, CURLOPT\_HTTPHEADER, $headers);

curl\_setopt($curl\_session, CURLOPT\_RETURNTRANSFER, true);

curl\_setopt($curl\_session, CURLOPT\_SSL\_VERIFYPEER, false);

curl\_setopt($curl\_session, CURLOPT\_IPRESOLVE, CURL\_IPRESOLVE\_V4 );

curl\_setopt($curl\_session, CURLOPT\_POSTFIELDS, $payload);

$result = curl\_exec($curl\_session);

curl\_close($curl\_session);

mysqli\_close($con);

?>

**Send\_notificationpp.html:**

<html>

<body>

<form action="send\_notificationpp.php" method="post">

<table>

<tr>

<td> Title : </td><td><input type ="text" name="title"/></td>

</tr>

<tr>

<td> Message : </td><td><input type ="text" name="message"/></td>

</tr>

<tr>

<td><input type ="submit" value="Submit"/></td>

</tr>

</table>

</form>

</body>

</html>