**Praktikum 11**

**Android MySQL Create dan Multi Read**

1. Sebelum memulai dengan proyek Android, nyalakan XAMPP yang terpasang di komputer masing-masing. Lalu cek apakah localhost bisa diakses atau tidak.

2. Jika berhasil mengakses, gunakan PHPMyAdmin untuk membuat database “android” dan tabel “databarang” baru.

3. Kolom-kolom di tabel “users”:

| +------------+--------------+------+-----+---------+----------------+  | Field | Type | Null | Key | Default | Extra |  +------------+--------------+------+-----+---------+----------------+  | id | int(11) | NO | PRI | NULL | auto\_increment |  | kodebarang | varchar(100) | NO | UNI | NULL | |  | namabarang | varchar(100) | NO | | NULL | |  | kuantitas | int(11) | NO | | NULL | |  +------------+--------------+------+-----+---------+----------------+ |
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4. Hasil dari Database dan Tabel:

| **DB android** |
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| +--------------------+  | Database |  +--------------------+  | **android** |  | information\_schema |  | mysql |  | performance\_schema |  +--------------------+ |
| **Tabel databarang** |
| +-------------------+  | Tables\_in\_android |  +-------------------+  | databarang |  +-------------------+ |

5. Isilah dengan data Dummy untuk menguji Aplikasi Android nanti, contoh:

| +----+-------------------+------------+-----------+  | id | kodebarang | namabarang | kuantitas |  +----+-------------------+------------+-----------+  | 1 | INV-5DD9FC0BEAE04 | meja | 10 |  | 2 | INV-5DD9FC9E0D43A | kursi | 10 |  | 3 | INV-5DD9FCBCDAAFE | lampu | 10 |  +----+-------------------+------------+-----------+ |
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6. Berikutnya adalah membuat file PHP di htdocs (Pastikan file bisa diakses nanti!)

| **connect.php** |
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| <?php  $HOST = 'localhost';  $USER = 'admin';  $PASS = 'password';  $DB = 'android';  $CON = mysqli\_connect($HOST,$USER,$PASS,$DB) or die(mysqli\_error($CON));  ?> |
| **create.php** |
| <?php  require\_once('connect.php');  // Generator Kode Unik  $kodebarang = strtoupper(uniqid("INV-", FALSE));  // Ambil Data dengan GET  $namabarang = $\_GET['nama'];  $kuantitas = $\_GET['jumlah'];    // Query Data  if(!$namabarang || !$kuantitas){  echo json\_encode(array('message'=>'Field Kosong!'));  }else{  $query = mysqli\_query($CON, "INSERT INTO databarang (kodebarang,namabarang,kuantitas) VALUES ('$kodebarang','$namabarang','$kuantitas')");  if($query)  {  echo json\_encode(array('message'=>'Data Sukses Dimasukkan!'));  }  else  {  echo json\_encode(array('message'=>'Data Gagal Dimasukkan!'));  }  }  ?> |
| **read.php** |
| <?php  require\_once('connect.php');  $result = array();  $query = mysqli\_query($CON,"SELECT \* FROM databarang ORDER BY id ASC");  while($row = mysqli\_fetch\_assoc($query)){  $result[] = $row;  }  echo json\_encode(array('result'=>$result));  ?> |

7. Tes koneksi ke PHP dengan menggunakan Web Browser, gunakan [http://localhost/android/read.php](http://localhost/read.php?id=1) (tergantung dari letak file!!!). Jika benar akan muncul gambar berikut:

| {"result":[{"id":"1","kodebarang":"INV-5DD9FC0BEAE04","namabarang":"meja","kuantitas":"10"},{"id":"2","kodebarang":"INV-5DD9FC9E0D43A","namabarang":"kursi","kuantitas":"10"},{"id":"3","kodebarang":"INV-5DD9FCBCDAAFE","namabarang":"lampu","kuantitas":"10"},{"id":"4","kodebarang":"INV-5DDA4C519A0B4"}]} |
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8. Lalu buatlah proyek baru dengan Android Studio

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9. Pilih Empty Activity untuk memulai aplikasi baru

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10. Bukalah file **build.gradle (Module: app)** lalu tambahkan tulisan tebal putih berikut:

| dependencies {  implementation fileTree(dir: 'libs', include: ['\*.jar'])  implementation"org.jetbrains.kotlin:kotlin-stdlib-jdk7:$kotlin\_version"  implementation 'androidx.appcompat:appcompat:1.0.2'  implementation 'androidx.core:core-ktx:1.0.2'  implementation 'androidx.constraintlayout:constraintlayout:1.1.3'  testImplementation 'junit:junit:4.12'  androidTestImplementation 'androidx.test:runner:1.1.1'  androidTestImplementation 'androidx.test.espresso:espresso-core:3.1.1'  **implementation 'com.amitshekhar.android:jackson-android-networking:1.0.2'** } |
| --- |

11. Sync Project, lalu tambahkan kode berikut ke AndroidManifest.xml

| <?xml version="1.0" encoding="utf-8"?> <manifest xmlns:android="http://schemas.android.com/apk/res/android"  package="com.example.mysqlcr">   **<uses-permission android:name="android.permission.INTERNET" />**   <application  **android:usesCleartextTraffic="true">**  ....... |
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12. Kemudian buatlah Layout Pertama sebagai berikut:

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13. Kemudian edit MainActivity.kt

| package com.example.mysqlcr  import android.content.Intent import androidx.appcompat.app.AppCompatActivity import android.os.Bundle import android.util.Log import android.widget.Button import android.widget.EditText import android.widget.TextView import android.widget.Toast import com.androidnetworking.AndroidNetworking import com.androidnetworking.common.Priority import com.androidnetworking.error.ANError import com.androidnetworking.interfaces.JSONObjectRequestListener import org.json.JSONObject  class MainActivity : AppCompatActivity() {   override fun onCreate(savedInstanceState: Bundle?) {  super.onCreate(savedInstanceState)  setContentView(R.layout.*activity\_main*)   **// Inisialisasi  var editNamaBarang = findViewById<EditText>(R.id.*editNamaBarang*)  var editKuantitas = findViewById<EditText>(R.id.*editKuantitas*)  var btnKirim = findViewById<Button>(R.id.*btnKirim*)  var btnReset = findViewById<Button>(R.id.*btnReset*)  var btnBaca = findViewById<Button>(R.id.*btnBaca*)  var txtLog = findViewById<TextView>(R.id.*txtLog*)  AndroidNetworking.initialize(*applicationContext*)   val SERVER = "http://192.168.100.2/android/"   // Aksi Button  btnKirim.setOnClickListener {   // Pengiriman dengan GET (Merujuk ke create.php)  val CREATE = SERVER+"create.php?nama=" + editNamaBarang.getText().toString() + "&jumlah=" + editKuantitas.getText().toString()   // Gunakan GET untuk Mengirim Data  AndroidNetworking.get(CREATE)  .setPriority(Priority.MEDIUM)  .build()  .getAsJSONObject(object : JSONObjectRequestListener {   // Jika Ada Respon Server  override fun onResponse(response: JSONObject?) {   // Tampilkan ke Log  txtLog.*text* = "Log : " + response?.getString("message")   // Jika Sukses pergi ke Aktivitas Daftar Barang  if(response?.getString("message")?.*contains*("Sukses")!!){  txtLog.*text* = "Log : " + response?.getString("message")  }   }   override fun onError(anError: ANError?) {  Log.d("ONERROR",anError?.*errorDetail*?.toString())  txtLog.*text* = "Log : Connection Failure"  }**    **})  }   btnReset.setOnClickListener {  // Reset Edit Text  editNamaBarang.setText("")  editKuantitas.setText("")  }   btnBaca.setOnClickListener {  val int : Intent = Intent(this,ReadActivity::class.*java*)  startActivity(int)  }** } } |
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14. Kemudian buatlah Layout Kedua dengan ConstraintLayout seperti:

| **activity\_read.xml** |
| --- |
| <?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=".ReadActivity">  **<ListView  android:id="@+id/list\_databarang"  android:layout\_width="0dp"  android:layout\_height="350dp"  app:layout\_constraintEnd\_toEndOf="parent"  app:layout\_constraintStart\_toStartOf="parent"  app:layout\_constraintTop\_toTopOf="parent" />**  **<Button  android:id="@+id/btnKembali"  android:layout\_width="0dp"  android:layout\_height="wrap\_content"  android:layout\_marginTop="8dp"  android:text="Kembali"  app:layout\_constraintEnd\_toEndOf="parent"  app:layout\_constraintStart\_toStartOf="parent"  app:layout\_constraintTop\_toBottomOf="@+id/list\_databarang" />**  **<TextView  android:id="@+id/txtLog"  android:layout\_width="0dp"  android:layout\_height="wrap\_content"  android:layout\_marginStart="32dp"  android:layout\_marginTop="24dp"  android:layout\_marginEnd="32dp"  android:text="Log : "  android:textAlignment="textStart"  android:textColor="#000"  app:layout\_constraintEnd\_toEndOf="parent"  app:layout\_constraintStart\_toStartOf="parent"  app:layout\_constraintTop\_toBottomOf="@+id/btnKembali" />**  </androidx.constraintlayout.widget.ConstraintLayout> |

15. Lalu buatlah ReadActivity.kt dengan isi sebagai berikut:

| **ReadActivity.kt** |
| --- |
| package com.example.mysqlcr  **import android.content.Intent import androidx.appcompat.app.AppCompatActivity import android.os.Bundle import android.util.Log import android.widget.\* import com.androidnetworking.AndroidNetworking import com.androidnetworking.common.Priority import com.androidnetworking.common.Priority.\* import com.androidnetworking.error.ANError import com.androidnetworking.interfaces.JSONObjectRequestListener import org.json.JSONObject**  class ReadActivity : AppCompatActivity() {   override fun onCreate(savedInstanceState: Bundle?) {  super.onCreate(savedInstanceState)  setContentView(R.layout.*activity\_read*)   **// Inisialisasi ListView dan Server  var list\_databarang = findViewById<ListView>(R.id.*list\_databarang*)  val btnKembali = findViewById<Button>(R.id.*btnKembali*)  var txtLog = findViewById<TextView>(R.id.*txtLog*)  AndroidNetworking.initialize(*applicationContext*)  val READ = "http://192.168.100.2/android/read.php"   // Ambil Data ke Server  AndroidNetworking.get(READ)  .setPriority(MEDIUM)  .build()  .getAsJSONObject(object : JSONObjectRequestListener {   // Jika Ada Respon dari Server  override fun onResponse(response: JSONObject?) {  txtLog.*text* = "Log : Loading Data"    // Ambil Data dengan nama result (Cek read.php)  val jsonArray = response?.optJSONArray("result")   // Jika Kosong  if(jsonArray?.length() == 0){  Toast.makeText(*applicationContext*,"Data Barang Kosong",Toast.*LENGTH\_SHORT*).show()  txtLog.*text* = "Log : Data Kosong"  }   // Buat Array untuk Data  val listBarang = *arrayOfNulls*<String>(jsonArray?.length()!!)   // Jika Ada Data  for(i in 0 *until* jsonArray?.length()!!){   // Ambil Data Satu per Satu (Iteratif)  val jsonObject = jsonArray?.optJSONObject(i)**    **// Susun Data menjadi Data Array  listBarang[i] = jsonObject.getString("id") + " - " + jsonObject.getString("kodebarang") + "\n" + jsonObject.getString("namabarang") + " : " + jsonObject.getString("kuantitas")   // Lempar Data ke ListView Adapter  if(jsonArray?.length() - 1 == i){  val adapter = ArrayAdapter(this@ReadActivity,android.R.layout.*simple\_list\_item\_1*,listBarang)  adapter.notifyDataSetChanged()  list\_databarang.*adapter* = adapter  txtLog.*text* = "Log : Data Loaded"  }  }  }   override fun onError(anError: ANError?) {  Log.d("ONERROR",anError?.*errorDetail*?.toString())  Toast.makeText(*applicationContext*,"Connection Failure",Toast.*LENGTH\_SHORT*).show()  txtLog.*text* = "Log : ERROR"  }  })   btnKembali.setOnClickListener {  val int2 : Intent = Intent(this,MainActivity::class.*java*)  startActivity(int2)  }** } } |

16. Kompile Kode dan Jalankan