

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	

4. Hasil dari Database dan Tabel:

DB android

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

6. Berikutnya adalah membuat file PHP di htdocs (Pastikan file bisa diakses nanti!)

connect.php
<pre><?php \$HOST = 'localhost'; \$USER = 'admin'; \$PASS = 'password'; \$DB = 'android'; \$CON = mysqli_connect(\$HOST,\$USER,\$PASS,\$DB) or die(mysqli_er- ror(\$CON)); ?></pre>
create.php
<pre><?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 (kodebar- ang,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!')); } } ?></pre>

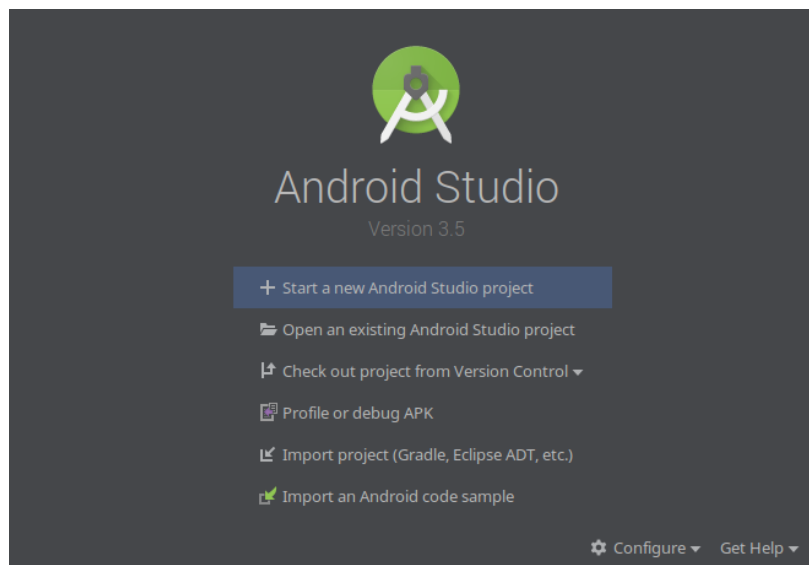
read.php

```
<?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));
?>
```

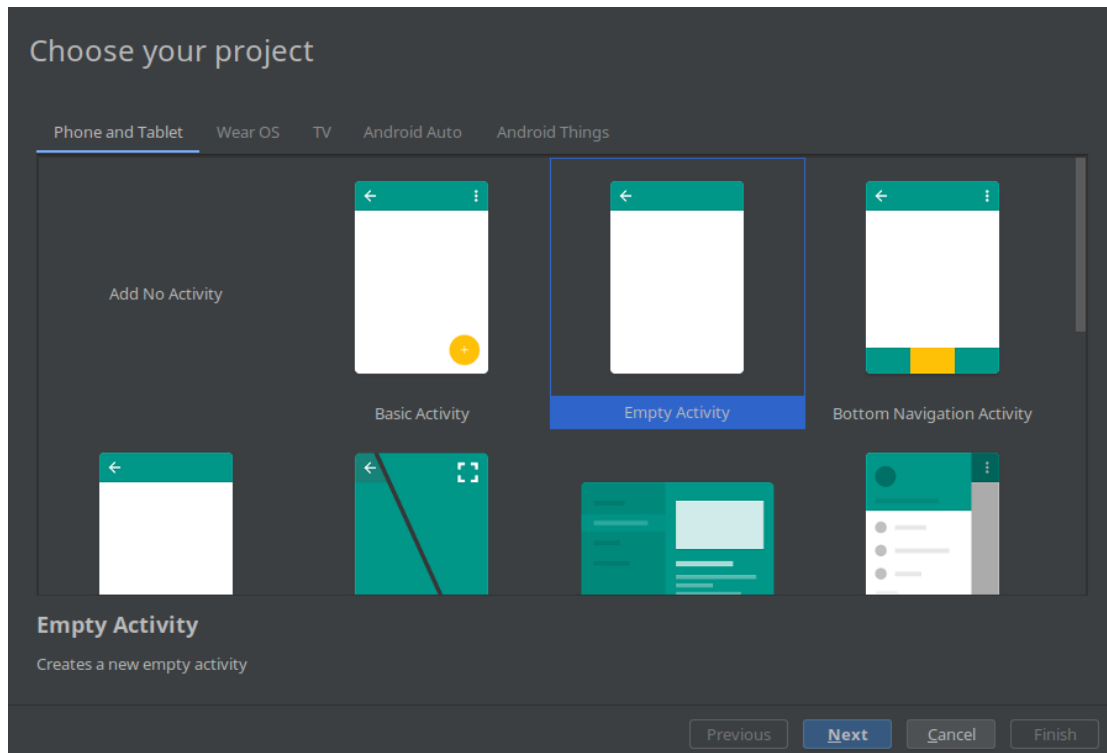
7. Tes koneksi ke PHP dengan menggunakan Web Browser, gunakan <http://localhost/android/read.php> (tergantung dari letak file!!!). Jika benar akan muncul gambar berikut:

```
{"result":[{"id":"1","kodebarang":"INV-5DD9FC0BEAE04","namabarang":"meja","kuanti-
tas":"10"}, {"id":"2","kodebarang":"INV-5DD9FC9E0D43A","namabarang":"kursi","kuanti-
tas":"10"}, {"id":"3","kodebarang":"INV-5DD9FCBCDAAFE","namabarang":"lampu","kuanti-
tas":"10"}, {"id":"4","kodebarang":"INV-5DDA4C519A0B4"}]}
```

8. Lalu buatlah proyek baru dengan Android Studio



9. Pilih Empty Activity untuk memulai aplikasi baru



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'
}
```

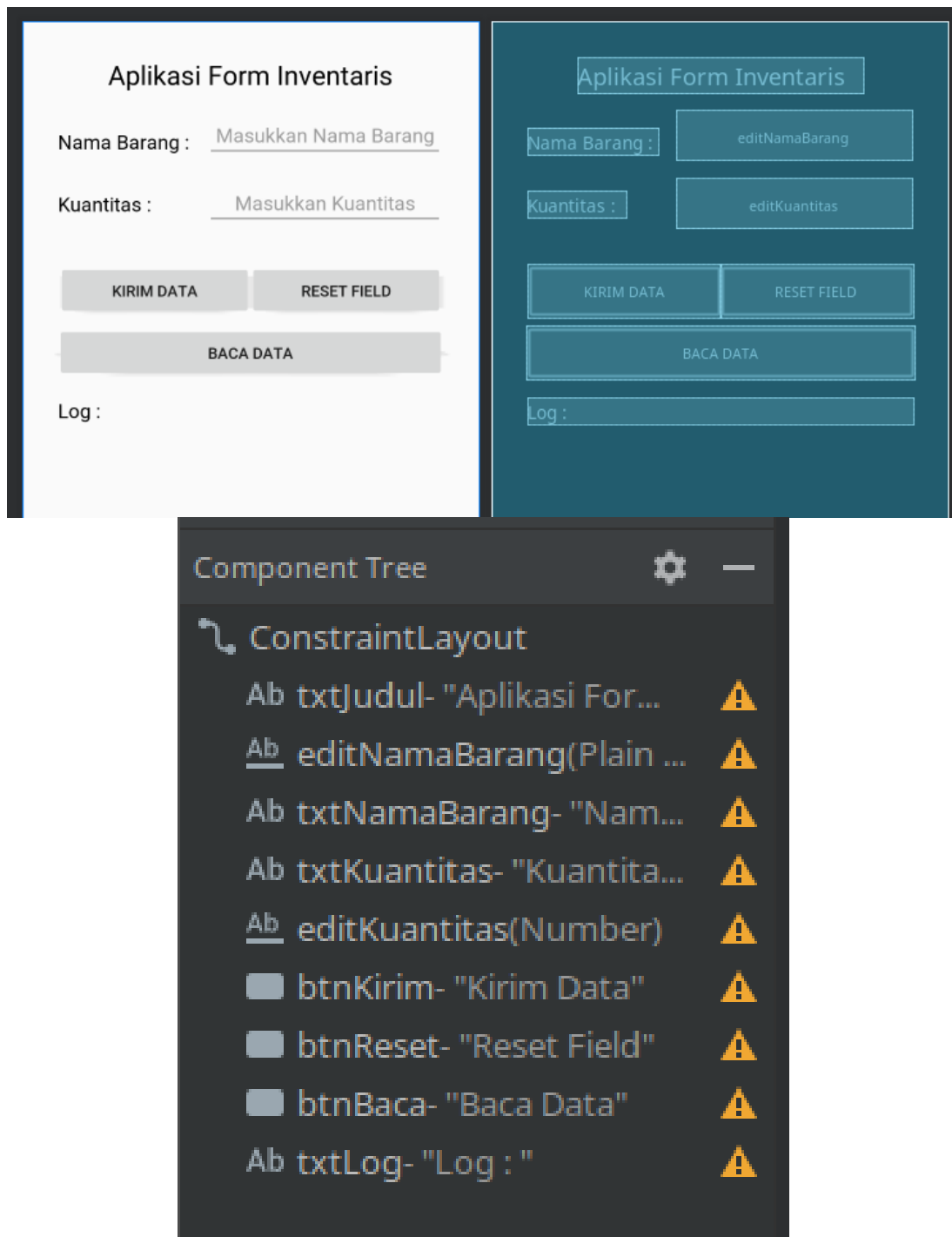
11. Sync Project, lalu tambahkan kode berikut ke AndroidManifest.xml

```
<?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">
        .....
```

12. Kemudian buatlah Layout Pertama sebagai berikut:



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)
}
}
}
}

```

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