

Mata Kuliah : Pemrograman Mobile – TI – S1

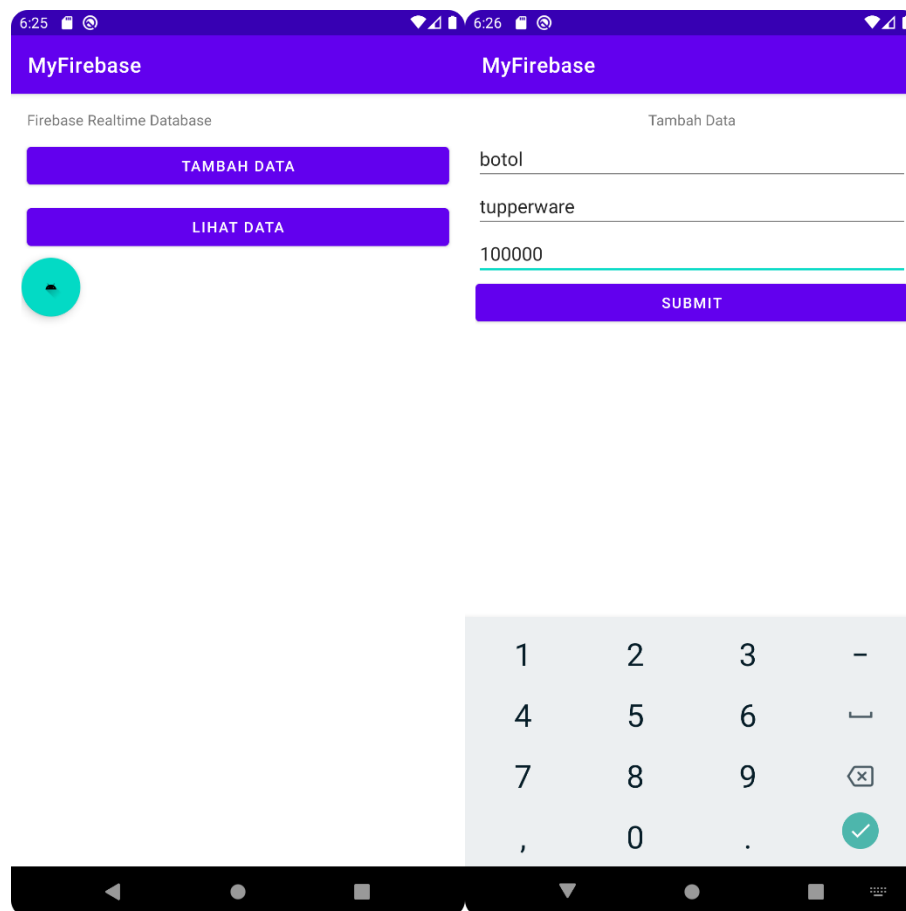
Pertemuan : Minggu 12

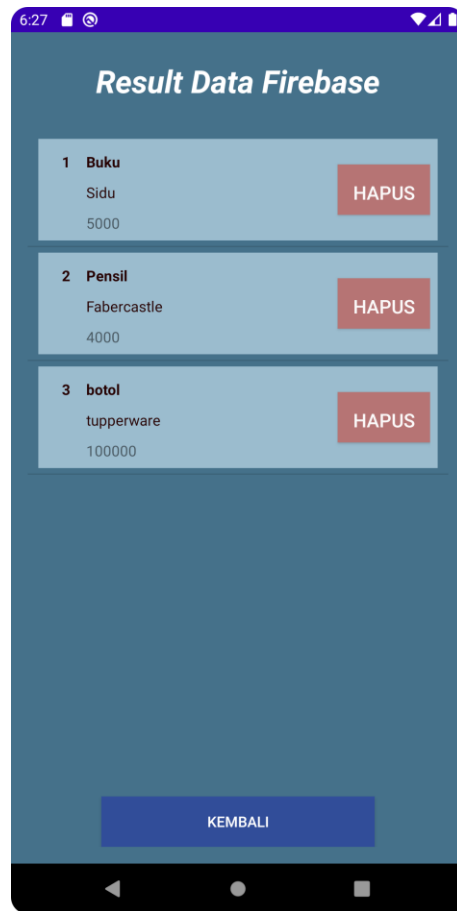
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buat Aplikasi CRUD FirebaseKu dengan nama tabel barang

Hasil Program :





Source Code :

Barang.java

```
package com.example.myfirebase;

import com.google.firebase.database.IgnoreExtraProperties;
import java.io.Serializable;
@IgnoreExtraProperties

public class Barang implements Serializable{
    private String nama;
    private String merk;
    private String harga;
    private String key;
    public Barang(){
    }
    public String getKey() {
        return key;
    }
    public void setKey(String key) {
        this.key = key;
    }
}
```

```

    public String getNama() {
        return nama;
    }
    public void setNama(String nama) {
        this.nama = nama;
    }
    public String getMerk() {
        return merk;
    }
    public void setMerk(String merk) {
        this.merk = merk;
    }
    public String getHarga() {
        return harga;
    }
    public void setHarga(String harga) {
        this.harga = harga;
    }
    @Override
    public String toString() {
        return " "+nama+"\n" +
            " "+merk+"\n" +
            " "+harga;
    }
    public Barang(String nm, String mrk, String hrg){
        nama = nm;
        merk = mrk;
        harga = hrg;
    }
}

```

FireBaseDBCreate.java

```

package com.example.myfirebase;

import android.app.Activity;
import android.content.Context;
import android.content.Intent;
import android.os.Bundle;
import android.text.TextUtils;
import android.view.View;
import android.view.inputmethod.InputMethodManager;
import android.widget.Button;
import android.widget.EditText;

import androidx.annotation.Nullable;
import androidx.appcompat.app.AppCompatActivity;
import com.google.android.gms.tasks.OnSuccessListener;
import com.google.android.material.snackbar.Snackbar;
import com.google.firebase.database.DatabaseReference;
import com.google.firebase.database.FirebaseDatabase;
import com.example.myfirebase.Barang;

public class FireBaseDBCreate extends AppCompatActivity {
    // variable yang merefers ke Firebase Realtime Database
    private DatabaseReference database;

```

```

// variable fields EditText dan Button
private Button btSubmit;
private EditText etNama;
private EditText etMerk;
private EditText etHarga;
@Override
protected void onCreate(@Nullable Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_fire_base_dbcreate);

// inisialisasi fields EditText dan Button
    etNama = (EditText) findViewById(R.id.et_namabarang);
    etMerk = (EditText) findViewById(R.id.et_merkbarang);
    etHarga = (EditText) findViewById(R.id.et_hargabarang);
    btSubmit = (Button) findViewById(R.id.bt_submit);

// mengambil referensi ke Firebase Database
    database = FirebaseDatabase.getInstance().getReference();
// kode yang dipanggil ketika tombol Submit diklik
    btSubmit.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View view) {
            if(!isEmpty(etNama.getText().toString()) &&
                !isEmpty(etMerk.getText().toString()) &&
                !isEmpty(etHarga.getText().toString()))
                submitBarang(new Barang(etNama.getText().toString(),
etMerk.getText().toString(), etHarga.getText().toString()));
            else
                Snackbar.make(findViewById(R.id.bt_submit), "Data barang
tidak boleh kosong", Snackbar.LENGTH_LONG).show();
                InputMethodManager imm = (InputMethodManager)
getSystemService(Context.INPUT_METHOD_SERVICE);
                imm.hideSoftInputFromWindow(etNama.getWindowToken(), 0);
        }
    });

    private boolean isEmpty(String s) {
// Cek apakah ada fields yang kosong, sebelum disubmit
        return TextUtils.isEmpty(s);
    }

    private void updateBarang(Barang barang) {
// kodingan untuk next tutorial ya :p
    }

    private void submitBarang(Barang barang) {
database.child("barang").push().setValue(barang).addOnSuccessListener(
    this, new OnSuccessListener<Void>() {
        @Override
        public void onSuccess(Void aVoid) {
            etNama.setText("");
            etMerk.setText("");
            etHarga.setText("");
            Snackbar.make(findViewById(R.id.bt_submit), "Data
berhasil ditambahkan", Snackbar.LENGTH_LONG).show();
        }
    });
}
}

```

```

        public static Intent getActIntent(Activity activity) {
// kode untuk pengambilan Intent
            return new Intent(activity, FireBaseDBCreate.class);
        }
    }
}

```

GetFirebaseActivity.java

```

package com.example.myfirebase;

import android.app.Activity;
import android.content.Context;
import android.os.Bundle;
import android.os.Parcelable;
import android.util.Log;
import android.view.LayoutInflater;
import android.view.View;
import android.view.ViewGroup;
import android.widget.AdapterView;
import android.widget.Button;
import android.widget.ListView;
import android.widget.SimpleAdapter;
import android.widget.TextView;
import com.google.firebase.database.DataSnapshot;
import com.google.firebase.database.DatabaseError;
import com.google.firebase.database.DatabaseReference;
import com.google.firebase.database.FirebaseDatabase;

import com.google.firebase.database.Query;
import com.google.firebase.database.ValueEventListener;
import java.util.ArrayList;
import java.util.HashMap;
import java.util.List;
import java.util.Map;

public class GetFirebaseActivity extends Activity implements
AdapterView.OnItemClickListener {
    Activity activity;
    ListView listView;
    ListAdapter adapter;
    private ArrayList<HashMap<String, String>> list = new
ArrayList<HashMap<String, String>>();
    Button btnBack;
    DatabaseReference rootRef, demoRef;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_get_firebase);
        activity = this;
        btnBack = (Button) findViewById(R.id.btnBack);
        listView = findViewById(R.id.listview);
        listView.setOnItemClickListener(this);
        listView.setOverScrollMode(View.OVER_SCROLL_NEVER);
        rootRef = FirebaseDatabase.getInstance().getReference();
        demoRef = rootRef.child("barang");
        btnBack.setOnClickListener(new View.OnClickListener() {

```

```

        @Override
        public void onClick(View v) {
            onBackPressed();
        }
    });
    getDataValue();
}

@Override
public void onItemClick(AdapterView<?> parent, View
    view, int position, long id) {
}

public void getDataValue(){
    list = new ArrayList<HashMap<String,
String>>();rootRef.child("barang").addListenerForSingleValueEvent(new
ValueEventListener() {
        @Override
        public void onDataChange(DataSnapshot dataSnapshot) {
            int i = 1;
            for (DataSnapshot snapshot : dataSnapshot.getChildren())
{String id = (String) snapshot.getKey();
                String nama = (String) snapshot.child("nama").getValue();
                String merk = (String) snapshot.child("merk").getValue();
                String harga = (String)
snapshot.child("harga").getValue();HashMap<String, String> data = new
HashMap<>();data.put("key", id);
                data.put("nomor", ""+i++);
                data.put("nama", nama);
                data.put("merk", merk);
                data.put("harga", harga);
                list.add(data);
            }
            adapter = new ListAdapter(activity, list, R.layout.list_item,
new String[]{"nomor","nama","merk", "harga"}, new int[]{R.id.nomor,
R.id.textNama,R.id.textMerk, R.id.harga});
            Parcelable state = listView.onSaveInstanceState();
            listView.setAdapter(adapter);
            listView.onRestoreInstanceState(state);
            adapter.notifyDataSetChanged();
        }
    });
    @Override
    public void onCancelled(DatabaseError databaseError) {
    }
}

}

public class ListAdapter extends SimpleAdapter {
    private Context mContext;
    public LayoutInflater inflater = null;
    public ListAdapter(Context context, List<? extends Map<String, ?>>
data, int resource, String[] from, int[] to) {super(context, data, resource,
from, to);mContext = context;inflater = (LayoutInflater)
mContext.getSystemService(Context.LAYOUT_INFLATER_SERVICE);
    }
    @Override
    public View getView(int position, View convertView, ViewGroup parent)
{
        View vi = convertView;
        if (convertView == null)

```

```

        vi = inflater.inflate(R.layout.list_item, null);
        HashMap<String, Object> data = (HashMap<String, Object>)
getItem(position);
        final Button btnDelete = vi.findViewById(R.id.delete);
        final TextView nomor = vi.findViewById(R.id.nomor);
        final TextView textNama = vi.findViewById(R.id.textNama);
        final TextView textMerk = vi.findViewById(R.id.textMerk);
        final TextView harga = vi.findViewById(R.id.harga);
        final String strKey = (String) data.get("key");
        final String strID = (String) data.get("nomor");
        final String strTextNama = (String) data.get("nama");
        final String strTextMerk = (String) data.get("merk");
        final String strHarga = (String) data.get("harga");
        nomor.setText(strID);
        textNama.setText(strTextNama);
        textMerk.setText(strTextMerk);
        harga.setText(strHarga);
        btnDelete.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                Delete(strKey);
            }
        });
        return vi;
    }

    public void Delete(String keyID) {
        Query applesQuery = demoRef.child(keyID);
        applesQuery.addListenerForSingleValueEvent(new ValueEventListener() {
            @Override
            public void onDataChange(DataSnapshot dataSnapshot) {
                for (DataSnapshot dummySnapshot:
                    dataSnapshot.getChildren()) {
                    dummySnapshot.getRef().removeValue();
                }
                getDataValue();
            }
            @Override
            public void onCancelled(DatabaseError databaseError) {
                Log.e("delete", "onCancelled", databaseError.toException());
            }
        });
    }

    @Override
    public void onBackPressed() {
        super.onBackPressed();
    }
}

```

MainActivity.java

```

package com.example.myfirebase;

import android.content.Intent;
import android.os.Bundle;
import android.view.View;

```

```

import android.widget.Button;
import android.widget.EditText;

import androidx.annotation.Nullable;
import androidx.appcompat.app.AppCompatActivity;
import com.google.firebase.database.DatabaseReference;
import com.google.firebase.database.FirebaseDatabase;

public class MainActivity extends AppCompatActivity {
    private Button btCreateDB;
    private Button btViewDB;
    @Override
    protected void onCreate(@Nullable Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        btCreateDB = (Button) findViewById(R.id.bt_createdata);
        btViewDB = (Button) findViewById(R.id.bt_viewdata);
        btCreateDB.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
// kelas yang akan dijalankan ketika tombolCreate/Insert Data diklik

startActivity(FireBaseDBCreate.getActIntent(MainActivity.this));
            }
        });
        btViewDB.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                startActivity(new Intent(MainActivity.this,
GetFirebaseActivity.class));
            }
        });
    }
}

```

Activity_fire_base_dbcreate.xml

```

<?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="match_parent"
    android:layout_gravity="center_horizontal"
    android:gravity="center_horizontal"
    android:orientation="vertical"
    android:padding="10dp">
    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_margin="5dp"
        android:text="Tambah Data" />
    <EditText
        android:id="@+id/et_namabarang"
        android:layout_width="match_parent"

```



```

        android:layout_height="wrap_content"
        android:hint="Nama Barang"
        android:inputType="text" />
<EditText
    android:id="@+id/et_merkbarang"
    android:layout_width="match_parent"
    android:hint="Merek Barang"
    android:layout_height="wrap_content" />
<EditText
    android:id="@+id/et_hargabarang"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:hint="Harga Barang"
    android:inputType="number" />
<Button
    android:id="@+id/bt_submit"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:text="Submit" />
</LinearLayout>

```

Activity_get_firebase.xml

```

<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:background="#bb013d60"
    android:padding="16dp"
    android:gravity="center">
    <TextView
        android:id="@+id/title"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Result Data Firebase"
        android:padding="10dp"
        android:textSize="30sp"
        android:textColor="#fff"
        android:textStyle="bold|italic"
        android:layout_marginBottom="20dp"
        android:layout_centerHorizontal="true"/>
    <Button
        android:id="@+id/btnBack"
        android:layout_alignParentBottom="true"
        android:background="#dc304a9f"
        android:textColor="#fff"
        android:layout_marginRight="70dp"
        android:layout_marginLeft="70dp"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_marginTop="24dp"
        android:text="Kembali"/>
    <ListView
        android:layout_above="@id/btnBack"
        android:id="@+id/listview"

```

```

        android:layout_below="@id/title"
        android:layout_width="match_parent"
        android:layout_height="wrap_content">
    </ListView>
</RelativeLayout>

```

Activity_main.xml

```

<?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="match_parent"
    android:padding="10dp"
    android:orientation="vertical">
    <TextView
        android:layout_margin="5dp"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Firebase Realtime Database"/>

    <Button
        android:layout_margin="5dp"
        android:id="@+id/bt_createdata"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:text="Tambah Data" />

    <Button
        android:layout_margin="5dp"
        android:id="@+id/bt_viewdata"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:text="Lihat Data" />

    <com.google.android.material.floatingactionbutton.FloatingActionButton
        android:id="@+id/fab"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:src="@drawable/ic_launcher_foreground"
        android:layout_marginBottom="20dp"
        android:layout_marginRight="20dp"
        android:layout_alignParentBottom="true"
        android:layout_alignParentRight="true"
        />
</LinearLayout>

```

List_item.xml

```

<?xml version="1.0" encoding="utf-8"?>
<LinearLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:id="@+id/item"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"

```

```

android:background="@android:color/transparent"
android:paddingLeft="10dp"
android:paddingTop="5dp"
android:paddingRight="10dp"
android:paddingBottom="5dp">

<LinearLayout
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:background="#acc5e0ef"
    android:orientation="vertical"
    android:padding="7dp">
    <RelativeLayout
        android:layout_width="match_parent"
        android:layout_height="wrap_content">
        <TextView
            android:id="@+id/nomor"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:paddingLeft="15dp"
            android:paddingTop="5dp"
            android:paddingRight="0dp"
            android:paddingBottom="5dp"
            android:textStyle="bold"
            android:textColor="#250000"
            android:text="1." />
        <Button
            android:id="@+id/delete"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_alignParentRight="true"
            android:layout_centerVertical="true"
            android:background="#b67474"
            android:paddingLeft="0dp"
            android:paddingTop="5dp"
            android:paddingRight="0dp"
            android:paddingBottom="0dp"
            android:text="hapus"
            android:textColor="#fcfafa"
            android:textSize="18sp"
            android:textStyle="normal" />
        <RelativeLayout
            android:layout_toRightOf="@id/nomor"
            android:layout_toLeftOf="@id/delete"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content">
            <TextView
                android:id="@+id/textNama"
                android:layout_width="wrap_content"
                android:layout_height="wrap_content"
                android:layout_alignParentLeft="true"
                android:paddingLeft="15dp"
                android:paddingTop="5dp"
                android:paddingRight="5dp"
                android:paddingBottom="5dp"
                android:text="nama"
                android:textColor="#250000"

```

```
        android:textStyle="bold" />
    <TextView
        android:id="@+id/textMerk"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_below="@id/textNama"
        android:layout_alignParentLeft="true"
        android:paddingLeft="15dp"
        android:paddingTop="5dp"
        android:paddingRight="5dp"
        android:paddingBottom="5dp"
        android:text="merk"
        android:textColor="#250000" />
    <TextView
        android:id="@+id/harga"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_below="@id/textMerk"
        android:layout_alignParentLeft="true"
        android:paddingLeft="15dp"
        android:paddingTop="5dp"
        android:paddingRight="5dp" />
</RelativeLayout>
</RelativeLayout>
</LinearLayout>
</LinearLayout>
```