

Manual Book Aplikasi Pembelajaran Huruf Hijaiyah Berbasis Android.

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Prosedur Penggunaan Aplikasi Pembelajaran Huruf Hijaiyah Berbasis Android

Aplikasi Pembelajaran Huruf Hijaiyah Berbasis Android merupakan aplikasi yang diciptakan untuk memberikan kemudahan seseorang untuk belajar tentang huruf hijaiyah. Aplikasi Ini mudah digunakan karena berbasis Android yang dapat dijalankan diperangkat mobile dengan sistem operasi Android.

Proses Penggunaan Aplikasi cukup mudah dengan langkah berikut ini;

1. User Instal Aplikasi

2. Menu Utama Aplikasi Akan Menampilkan Caption aplikasi ,menu Membaca,Bermain, dan Menulis

3. User dapat menggunakan menu Membaca maka akan terdengar bacaan Huruf Hijaiyah

4. User dapat Menggunakan Menu Bermain akan terdapat permainan menyamakan Huruf

5. User dapat Menggunakan Menu Menulis untuk secara langsung menulis Huruf Hijaiyah pada tampilan.

6. Tombol Back digunakan user untuk keluar dari Aplikasi .

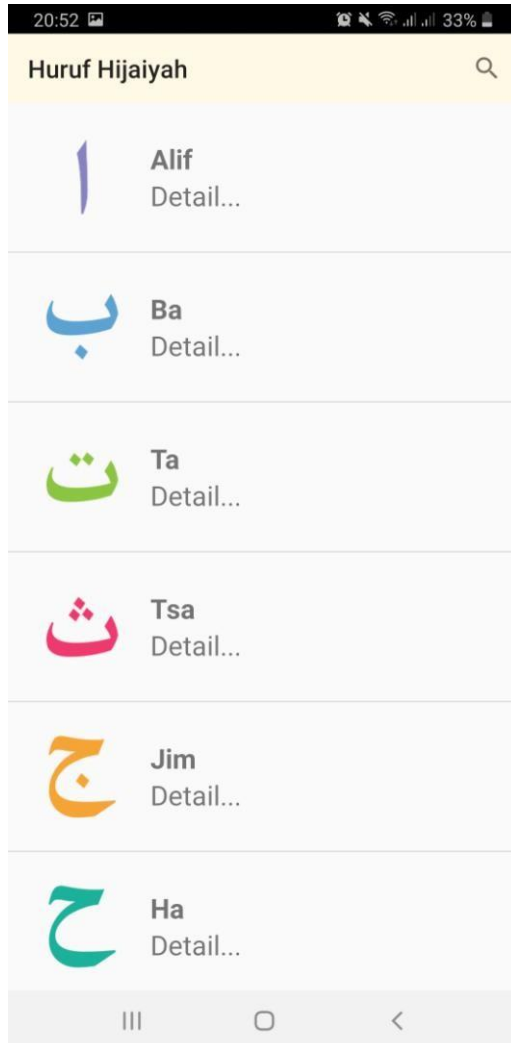
Adapun cara detail penggunaan Aplikasi Pembelajaran Huruf Hijaiyah berbasis Android dijelaskan pada langkah-langkah berikut ini;

Halaman Utama Aplikasi



1. Halaman Ini adalah halaman Utama Aplikasi terdapat icon pencarian, versi Aplikasi dan 3 Menu utama yaitu Membaca, Bermain, serta Menulis. Untuk mengakses menu cukup dengan klik pada menu yang akan dipilih.

Menu Pencarian



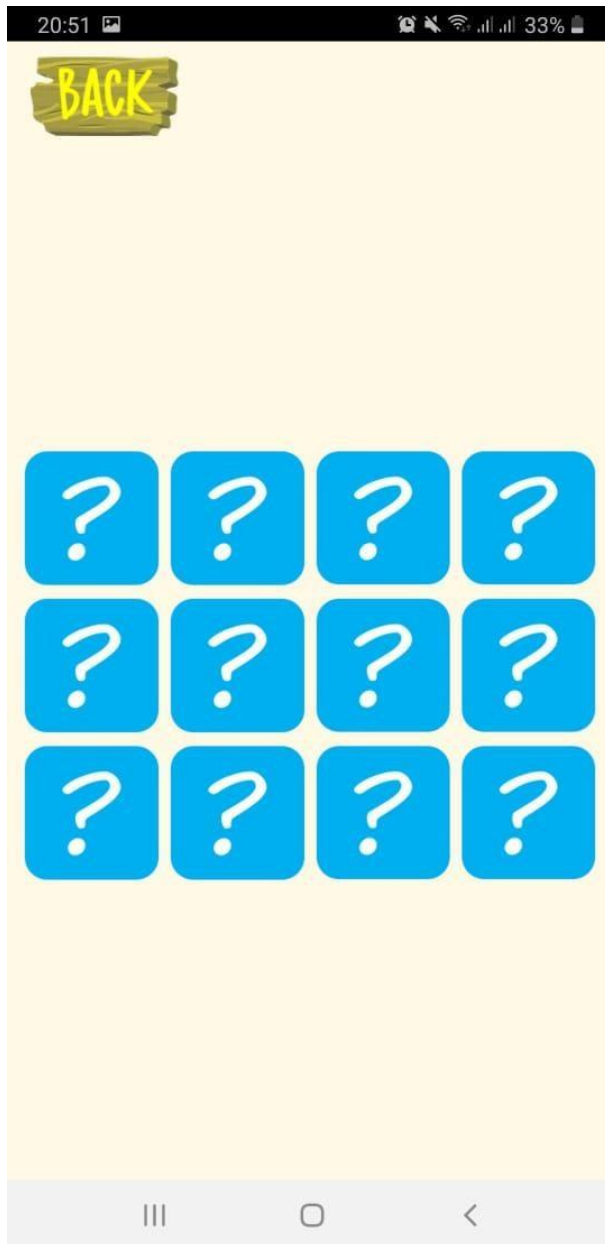
2. Halaman pencarian menampilkan data Huruf Hijaiyah dan detail dari masing-masing huruf untuk kembali ke tampilan menu utama dapat menggunakan button back pada perangkat mobile kita.

Menu Membaca



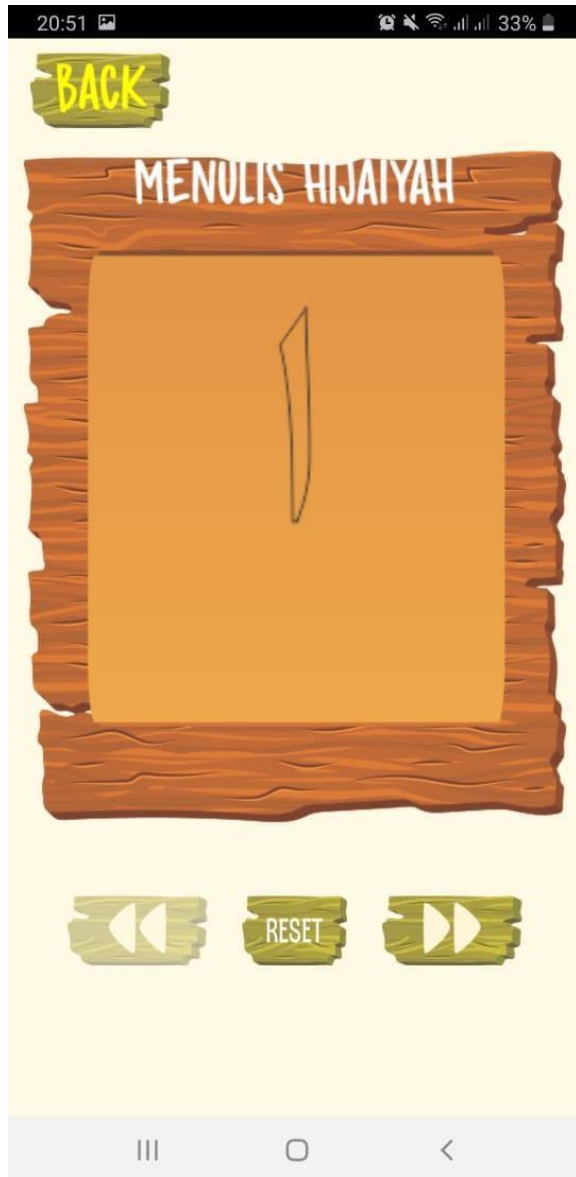
3. Menu Membaca akan menampilkan Huruf Hijaiyah dan akan terdengar suara bagaimana Membaca huruf yang ditampilkan .Untuk kembali ke menu sebelumnya menggunakan button back.

Menu Bermain



4. Menu Bermain akan menampilkan puzzle yang mengharuskan kita membuka dan menyamakan Huruf Hijaiyah pada puzzle yang disediakan sehingga masing-masing Huruf ada 2 yang sama . untuk kembali ke menu sebelumnya cukup dengan klik button Back.

Menu Menulis



5. Menu Menulis terdapat Tampilan Huruf Hijaiyah yang dapat kita ikuti dengan menulis langsung pada tampilan layar pada perangkat mobile atau Handphone Android yang kita miliki. Tombol Reset digunakan untuk mengulang kembali penulisan yang sudah kita buat. Untuk ke menu utama kita bisa menggunakan tombol back.

Source Code Aplikasi

Kode Program

1. Dashboard.java

```
package com.android.belajarhijaiyah;

import android.content.Context;
import android.content.DialogInterface;
import android.content.Intent;
import android.content.SharedPreferences;
import android.media.MediaPlayer;
import android.os.Bundle;

import android.preference.PreferenceManager;
import android.support.v7.app.AlertDialog;
import android.support.v7.app.AppCompatActivity;
import android.support.v7.widget.Toolbar; import
android.view.View; import android.view.Window;

import android.widget.Button;

public class Dashboard extends AppCompatActivity {

    Toolbar toolbar;

    public boolean isFirstStart;

    Context mContext;

    @Override
```

```

protected void onCreate(Bundle savedInstanceState) {

    super.onCreate(savedInstanceState);

    getWindow().requestFeature(Window.FEATURE_ACTION_BAR);

    setContentView(R.layout.activity_dashboard);

    Button button = findViewById(R.id.btn_baca);

    final MediaPlayer mp = MediaPlayer.create(this, R.raw.click);
    button.setOnClickListener(new View.OnClickListener() {

        @Override

        public void onClick(View v) {

            Intent intent = new Intent(Dashboard.this,
Membaca_Hijaiyah.class);

            intent.putExtra("type", Resource.MEMBACA_HIJAIYAH);

            mp.start();

            startActivity(intent);

        }

    });

    Button button1 = findViewById(R.id.btn_ingat);

    final MediaPlayer mp1 = MediaPlayer.create(this,
R.raw.click); button1.setOnClickListener(new
View.OnClickListener() {

        @Override

        public void onClick(View v){

            Intent intent = new Intent(Dashboard.this,
Mengingat_Hijaiyah.class);

            mp1.start();

            startActivity(intent);

        }

    });
}

```

```
Button button2 = findViewById(R.id.btn_tulis);

final MediaPlayer mp2 = MediaPlayer.create(this, R.raw.click);
button2.setOnClickListener(new View.OnClickListener()
```

66

```

{

    @Override

    public void onClick(View v){

        Intent intent = new Intent(Dashboard.this,
Menulis_HIjaiyah.class);

        intent.putExtra("type", Resource.MENULIS_HIJAIYAH);

        mp2.start();

        startActivity(intent);

    }

});

Button button3 = findViewById(R.id.btn_pengaturan);

final MediaPlayer mp3 = MediaPlayer.create(this, R.raw.click);
button3.setOnClickListener(new View.OnClickListener() {

    @Override

    public void onClick(View v) {

        Intent intent = new Intent(Dashboard.this, Tentang.class
);

        mp3.start();

        startActivity(intent);

    }

});

Button button4 = findViewById(R.id.btn_search);

final MediaPlayer mp4 = MediaPlayer.create(this, R.raw.click);
button4.setOnClickListener(new View.OnClickListener() {

    @Override

```

```

        public void onClick(View v) {

            Intent intent = new Intent(Dashboard.this,
Cari_Hijaiyah.class);

            mp4.start();

            startActivity(intent);

        }

    });

}

@Override

    public void onBackPressed() {

        final AlertDialog.Builder builder = new
AlertDialog.Builder(Dashboard.this);

        builder.setMessage("Anda Yakin Untuk
Keluar?"); builder.setCancelable(true);
        builder.setNegativeButton("Tidak", new
DialogInterface.OnClickListener() {

            @Override

            public void onClick(DialogInterface dialog, int which) {
                dialog.cancel();
            }

        });

        builder.setPositiveButton("Ya", new
DialogInterface.OnClickListener() {

            @Override

            public void onClick(DialogInterface dialog, int which) {
                finish();
            }

        });

        AlertDialog alertDialog = builder.create();
        alertDialog.show();

    }

```

}

2. Membaca_Hijaiyah.java

```

package com.android.belajarhijaiyah;

import android.annotation.SuppressLint;
import android.app.Activity;

import android.media.MediaPlayer;

import android.support.v7.app.AppCompatActivity;
import android.view.MotionEvent;

import android.view.View.OnClickListener;
import android.view.View.OnTouchListener;
import android.os.Bundle;
import android.view.View;

import android.widget.ImageView;

public class Membaca_Hijaiyah extends Activity implements
OnClickListener, OnTouchListener {

    ImageView nextBtn = null;

    ImageView playBtn = null;

    ImageView prevBtn = null;

    ImageView itemImage = null;

    ImageView itemName = null;

    private int currentPosition = 0;

    private int totalItem = 0;

```

```

private MediaPlayer mp = null;

Resource resource = new Resource();

@Override

protected void onCreate(Bundle savedInstanceState)
{
    super.onCreate(savedInstanceState);
    setContentView(R.layout.membaca_hijaiyah);

    nextBtn = findViewById(R.id.nextId);

    playBtn = findViewById(R.id.playId);
    prevBtn = findViewById(R.id.prevId);
    nextBtn.setOnClickListener(this);
    playBtn.setOnClickListener(this);
    prevBtn.setOnClickListener(this);

    itemImage = findViewById(R.id.itemImageId);
    itemName = findViewById(R.id.itemNameId);

    nextBtn.setOnClickListener(this);
    playBtn.setOnClickListener(this);
    prevBtn.setOnClickListener(this);
    itemImage.setOnClickListener(this);
    itemName.setOnClickListener(this);

    totalItem = resource.hijaiyahArab.length;

    itemImage.setImageResource(resource.hijaiyahArab[currentPosition]);

    itemName.setImageResource(resource.hijaiyahLatin[currentPosition]);

```

```
updateNextButton();
```

```

        mp = MediaPlayer.create(Membaca_Hijaiyah.this,
resource.hijaiyahSound[currentPosition]);

        mp.start();

    }

    @Override

    public void onClick(View v) {

        switch (v.getId())
        {

            case R.id.nextId:

                gotoNext();

                break;

            case R.id.prevId:

                gotoPrevious();

                break;

            case R.id.playId:

                playSound();

                break;

            case R.id.itemImageId:

                mp = MediaPlayer.create(Membaca_Hijaiyah.this,
resource.hijaiyahSound[currentPosition]);

                mp.start();

                break;

```

```

        default:
            break;
    }
}

private void gotoPrevious() {
    currentPosition--;
    updateNextButton();
    updatePreviousButton();

    if (currentPosition >= 0 && currentPosition < totalItem)
    {

itemImage.setImageResource(resource.hijaiyahArab[currentPosition]);

itemName.setImageResource(resource.hijaiyahLatin[currentPosition])
        ; mp = MediaPlayer.create(Membaca_Hijaiyah.this,
resource.hijaiyahSound[currentPosition]);

        mp.start();
    }
}

private void gotoNext() {
    currentPosition++;
    updateNextButton();
    updatePreviousButton();

    if (currentPosition >= 0 && currentPosition < totalItem)
    {

itemImage.setImageResource(resource.hijaiyahArab[currentPosition]);

itemName.setImageResource(resource.hijaiyahLatin[currentPosition])
        ; mp = MediaPlayer.create(Membaca_Hijaiyah.this,

```

```
resource.hijaiyahSound[currentPosition]);  
  
    mp.start();  
}  
}
```

```
private void playSound() {

    mp = MediaPlayer.create(Membaca_Hijaiyah.this,
resource.hijaiyahSound[currentPosition]);

    mp.start();

}

private void updateNextButton() {

    if (currentPosition == totalItem - 1)

    {

        nextBtn.setAlpha(0.5f);

        nextBtn.setClickable(false);

    }

    else

    {

        nextBtn.setAlpha(1f);

        nextBtn.setClickable(true);

    }

}

private void updatePreviousButton() {

    if (currentPosition == 0)

    {

        prevBtn.setAlpha(0.5f);

        prevBtn.setClickable(false);

    }

}
```

```

    }

    else

    {

        prevBtn.setAlpha(1f);

        prevBtn.setClickable(true);

    }

}

@SuppressWarnings("ClickableViewAccessibility")

@Override

public boolean onTouch(View v, MotionEvent event) {
    switch (event.getAction())
    {

        case MotionEvent.ACTION_DOWN:

            v.setAlpha(0.5f);

            break;

        case MotionEvent.ACTION_UP:

            v.setAlpha(1.0f);

            break;

        default:

            break;

    }

    return false;
}
}

```

3. Bermain_Hijaiyah.java

```

package com.android.belajarhijaiyah;

import android.content.DialogInterface;
import android.content.Intent;
import android.os.Handler;

import android.support.v7.app.AlertDialog;
import android.support.v7.app.AppCompatActivity;
import android.os.Bundle; import
android.view.View;

import android.widget.ImageView;

import java.util.Arrays;
import java.util.Collection;

import java.util.Collections;

    public class Mengingat_Hijaiyah extends AppCompatActivity {

        ImageView iv_11, iv_12, iv_13, iv_14, iv_21, iv_22, iv_23, iv_24,
        iv_31, iv_32, iv_33, iv_34

        /*,iv_41, iv_42, iv_43, iv_44, iv_51, iv_52, iv_53,
        iv_54, iv_61, iv_62, iv_63, iv_64*/;

        Integer[] hijaiyahArab = {

            101, 102, 103, 104, 105, 106, 201, 202, 203, 204, 205, 206

        };

        int image101, image102, image103, image104, image105, image106,
            image201, image202, image203, image204, image205, image206;

```

```

int firstCard, secondCard;

int clickedFirst, clickedSecond;

int cardNumber = 1;

@Override

protected void onCreate(Bundle savedInstanceState)
{
    super.onCreate(savedInstanceState);
    setContentView(R.layout.mengingat_hijaiyah);

    iv_11 = findViewById(R.id.iv_11); iv_12 =
    findViewById(R.id.iv_12);

    iv_13 = findViewById(R.id.iv_13); iv_14 =
    findViewById(R.id.iv_14);

    iv_21 = findViewById(R.id.iv_21); iv_22 =
    findViewById(R.id.iv_22);

    iv_23 = findViewById(R.id.iv_23); iv_24 =
    findViewById(R.id.iv_24);

    iv_31 = findViewById(R.id.iv_31); iv_32 =
    findViewById(R.id.iv_32);

    iv_33 = findViewById(R.id.iv_33); iv_34 =
    findViewById(R.id.iv_34);

    iv_11.setTag("0"); iv_12.setTag("1"); iv_13.setTag("2"); iv_14.setTag("3");

    iv_21.setTag("4"); iv_22.setTag("5"); iv_23.setTag("6"); iv_24.setTag("7");

```

```

iv_31.setTag("8");iv_32.setTag("9");iv_33.setTag("10");iv_34.setTag("11" );

frontCardResource();

Collections.shuffle(Arrays.asList(hijaiyahArab));

iv_11.setOnClickListener(new View.OnClickListener() {
    @Override

    public void onClick(View v) {

        int theCard = Integer.parseInt((String) v.getTag());
        doStuff(iv_11, theCard);

    }

});

iv_12.setOnClickListener(new View.OnClickListener() {
    @Override

    public void onClick(View v) {

        int theCard = Integer.parseInt((String) v.getTag());
        doStuff(iv_12, theCard);

    }

});

iv_13.setOnClickListener(new View.OnClickListener() {
    @Override

    public void onClick(View v) {

        int theCard = Integer.parseInt((String) v.getTag());
        doStuff(iv_13, theCard);

```

```

    }

    });

    iv_14.setOnClickListener(new View.OnClickListener() {
        @Override

        public void onClick(View v) {

            int theCard = Integer.parseInt((String) v.getTag());
            doStuff(iv_14, theCard);

        }

    });

    iv_21.setOnClickListener(new View.OnClickListener() {
        @Override

        public void onClick(View v) {

            int theCard = Integer.parseInt((String) v.getTag());
            doStuff(iv_21, theCard);

        }

    });

    iv_22.setOnClickListener(new View.OnClickListener() {
        @Override

        public void onClick(View v) {

            int theCard = Integer.parseInt((String) v.getTag());
            doStuff(iv_22, theCard);

        }

    });

    iv_23.setOnClickListener(new View.OnClickListener() {

```

```

        @Override

        public void onClick(View v) {

            int theCard = Integer.parseInt((String) v.getTag());
            doStuff(iv_23, theCard);

        }

    });

    iv_24.setOnClickListener(new View.OnClickListener() {
        @Override

        public void onClick(View v) {

            int theCard = Integer.parseInt((String) v.getTag());
            doStuff(iv_24, theCard);

        }

    });

    iv_31.setOnClickListener(new View.OnClickListener() {
        @Override

        public void onClick(View v) {

            int theCard = Integer.parseInt((String) v.getTag());
            doStuff(iv_31, theCard);

        }

    });

    iv_32.setOnClickListener(new View.OnClickListener() {
        @Override

        public void onClick(View v) {

```

```

        int theCard = Integer.parseInt((String) v.getTag());
        doStuff(iv_32, theCard);

    }

});

iv_33.setOnClickListener(new View.OnClickListener() {
    @Override

    public void onClick(View v) {

        int theCard = Integer.parseInt((String) v.getTag());
        doStuff(iv_33, theCard);

    }

});

iv_34.setOnClickListener(new View.OnClickListener() {
    @Override

    public void onClick(View v) {

        int theCard = Integer.parseInt((String) v.getTag());
        doStuff(iv_34, theCard);

    }

});

}

private void doStuff (ImageView iv,int card)
{

    if (hijaiyahArab[card] == 101)
    {

        iv.setImageResource(image101);

    }

    else if (hijaiyahArab[card] == 102)
    {

```

```
        iv.setImageResource(image102);
    }

    else if (hijaiyahArab[card] == 103)
    {

        iv.setImageResource(image103);
    }

    else if (hijaiyahArab[card] == 104)
    {

        iv.setImageResource(image104);
    }

    else if (hijaiyahArab[card] == 105)
    {

        iv.setImageResource(image105);
    }

    else if (hijaiyahArab[card] == 106)
    {

        iv.setImageResource(image106);
    }

    else if (hijaiyahArab[card] == 201)
    {

        iv.setImageResource(image201);
    }

    else if (hijaiyahArab[card] == 202)
    {
```

```

        iv.setImageResource(image202);
    }

    else if (hijaiyahArab[card] == 203)
    {

        iv.setImageResource(image203);
    }

    else if (hijaiyahArab[card] == 204)
    {

        iv.setImageResource(image204);
    }

    else if (hijaiyahArab[card] == 205)
    {

        iv.setImageResource(image205);
    }

    else if (hijaiyahArab[card] == 206)
    {

        iv.setImageResource(image206);
    }

    if (cardNumber == 1)
    {

        firstCard = hijaiyahArab[card];
        if(firstCard > 200)
        {

            firstCard = firstCard - 100;
        }

        cardNumber = 2;

        clickedFirst = card;
    }

```

```
        .setEnabled(false);  
    }  
  
    else if (cardNumber == 2)  
    {  
  
        secondCard = hijaiyahArab[card];  
  
        if (secondCard > 200)  
        {  
  
            secondCard = secondCard - 100;  
        }  
    }  
}
```

```

        cardNumber = 1;

        clickedSecond = card;

        iv_11.setEnabled(false);
        iv_12.setEnabled(false);
        iv_13.setEnabled(false);
        iv_14.setEnabled(false);

        iv_21.setEnabled(false);
        iv_22.setEnabled(false);
        iv_23.setEnabled(false);
        iv_24.setEnabled(false);

        iv_31.setEnabled(false);
        iv_32.setEnabled(false);
        iv_33.setEnabled(false);

        iv_34.setEnabled(false);

        Handler handler = new Handler();
        handler.postDelayed(new Runnable() {

            @Override

            public void run() {

                calculate();

            }

        }, 1000);
    }
}

```

```

private void calculate() {

    if (firstCard == secondCard)
    {

        if (clickedFirst == 0)
        {

            iv_11.setVisibility(View.INVISIBLE);

        }

        else if (clickedFirst == 1)
        {

            iv_12.setVisibility(View.INVISIBLE);

        }

        else if (clickedFirst == 2)
        {

            iv_13.setVisibility(View.INVISIBLE);

        }

        else if (clickedFirst == 3)
        {

            iv_14.setVisibility(View.INVISIBLE);

        }

        else if (clickedFirst == 4)
        {

            iv_21.setVisibility(View.INVISIBLE);

        }

        else if (clickedFirst == 5)
        {

            iv_22.setVisibility(View.INVISIBLE);

        }
    }
}

```

```
else if (clickedFirst == 6)
{

    iv_23.setVisibility(View.INVISIBLE);

}

else if (clickedFirst == 7)
{

    iv_24.setVisibility(View.INVISIBLE);

}
```

```
}

else if (clickedFirst == 8)
{

    iv_31.setVisibility(View.INVISIBLE);

}

else if (clickedFirst == 9)
{

    iv_32.setVisibility(View.INVISIBLE);

}

else if (clickedFirst == 10)
{

    iv_33.setVisibility(View.INVISIBLE);

}

else if (clickedFirst == 11)
{

    iv_34.setVisibility(View.INVISIBLE);

}

if (clickedSecond == 0)
{

    iv_11.setVisibility(View.INVISIBLE);

}

else if (clickedSecond == 1)
{
```

```
        iv_12.setVisibility(View.INVISIBLE);  
    }  
  
    else if (clickedSecond == 2)  
    {  
  
        iv_13.setVisibility(View.INVISIBLE);  
    }  
  
    else if (clickedSecond == 3)  
    {  
  
        iv_14.setVisibility(View.INVISIBLE);  
    }  
  
    else if (clickedSecond == 4)  
    {  
  
        iv_21.setVisibility(View.INVISIBLE);  
    }  
  
    else if (clickedSecond == 5)  
    {  
  
        iv_22.setVisibility(View.INVISIBLE);  
    }  
  
    else if (clickedSecond == 6)  
    {  
  
        iv_23.setVisibility(View.INVISIBLE);  
    }  
  
    else if (clickedSecond == 7)  
    {  
  
        iv_24.setVisibility(View.INVISIBLE);  
    }  
  
    else if (clickedSecond == 8)
```

```
{  
  
    iv_31.setVisibility(View.INVISIBLE);  
}  
  
else if (clickedSecond == 9)  
{  
  
    iv_32.setVisibility(View.INVISIBLE);  
}  
  
else if (clickedSecond == 10)  
{  
  
    iv_33.setVisibility(View.INVISIBLE);  
}
```

```

        else if (clickedSecond == 11)
        {

            iv_34.setVisibility(View.INVISIBLE);

        }
    }

    else
    {

        iv_11.setImageResource(R.drawable.tanya);
        iv_12.setImageResource(R.drawable.tanya);
        iv_13.setImageResource(R.drawable.tanya);
        iv_14.setImageResource(R.drawable.tanya);

        iv_21.setImageResource(R.drawable.tanya);
        iv_22.setImageResource(R.drawable.tanya);
        iv_23.setImageResource(R.drawable.tanya);

        iv_24.setImageResource(R.drawable.tanya);
        iv_31.setImageResource(R.drawable.tanya);
        iv_32.setImageResource(R.drawable.tanya);
        iv_33.setImageResource(R.drawable.tanya);

        iv_34.setImageResource(R.drawable.tanya);

    }

    iv_11.setEnabled(true);
    iv_12.setEnabled(true);

    iv_13.setEnabled(true);
    iv_14.setEnabled(true);

```

```

        iv_21.setEnabled(true);

        iv_22.setEnabled(true);

        iv_23.setEnabled(true);

        iv_24.setEnabled(true);

        iv_31.setEnabled(true);

        iv_32.setEnabled(true);

        iv_33.setEnabled(true);

        iv_34.setEnabled(true);

        checkEnd();

    }

    private void checkEnd() {

        if (iv_11.getVisibility() == View.INVISIBLE &&
            iv_12.getVisibility() == View.INVISIBLE &&

            iv_13.getVisibility() == View.INVISIBLE &&
            iv_14.getVisibility() == View.INVISIBLE &&

            iv_21.getVisibility() == View.INVISIBLE &&
            iv_22.getVisibility() == View.INVISIBLE &&
            iv_23.getVisibility() == View.INVISIBLE &&
            iv_24.getVisibility() == View.INVISIBLE &&

            iv_31.getVisibility() == View.INVISIBLE &&
            iv_32.getVisibility() == View.INVISIBLE &&
            iv_33.getVisibility() == View.INVISIBLE &&
            iv_34.getVisibility() == View.INVISIBLE)

        {

            AlertDialog.Builder alertDialogBuilder = new
            AlertDialog.Builder(Mengingat_Hijaiyah.this);

            alertDialogBuilder

```

```
        .setMessage("SELAMAT")

        .setCancelable(false)

        .setPositiveButton("NEW", new

DialogInterface.OnClickListener() {

            @Override

            public void onClick(DialogInterface dialog, int

which) {
```

```

        Intent intent = new
Intent(getApplicationContext(), Mengingat_Hijaiyah.class);

        startActivity(intent);

        finish();

    }

    })

        .setNegativeButton("EXIT", new
DialogInterface.OnClickListener() {

            @Override

            public void onClick(DialogInterface dialog, int
which) {

                finish();

            }

        });

```

```

AlertDialog alertDialog = alertDialogBuilder.create();
alertDialog.show();

```

```

}

```

```

}

```

```

private void frontCardResource() {

    image101 = R.drawable.alif_arab;

    image102 = R.drawable.ba_arab;

    image103 = R.drawable.ta_arab;

    image104 = R.drawable.tsa_arab;

```

```
        image105 = R.drawable.jim_arab;

        image106 = R.drawable.ha_arab;

        image201 = R.drawable.alif_arab;

        image202 = R.drawable.ba_arab;
        image203 = R.drawable.ta_arab;
        image204 = R.drawable.tsa_arab;
        image205 = R.drawable.jim_arab;

        image206 = R.drawable.ha_arab;

    ;

    }

}
```

4. Menulis_Hijaiyah.java

```
/*  
  
package com.android.belajarhijaiyah;  
  
import android.app.Activity;  
import android.content.Context;  
import android.graphics.Bitmap;  
import android.graphics.BitmapFactory;  
import android.graphics.Canvas;  
  
import android.graphics.Color;  
import android.graphics.Paint;  
import android.graphics.Path;  
import android.graphics.Rect;  
  
import android.os.Bundle;  
import android.view.MotionEvent;  
import android.view.View;  
import android.view.Window;  
  
import android.view.View.OnClickListener;  
import android.view.View.OnTouchListener;  
  
import android.view.ViewGroup;  
import android.widget.ImageView;  
  
import android.widget.RelativeLayout;  
  
public class Menulis_HIjaiyah extends Activity implements  
OnClickListener, OnTouchListener {
```

```

DrawingView dv;

private Paint mPaint;

private String type = "";

private Integer position = 0;

private int totalItem = 0;


ImageView nextBtn = null;

ImageView playBtn = null;

ImageView prevBtn = null;


View drawingView = null;

ViewGroup parent = null;

RelativeLayout.LayoutParams params = null;


@Override

protected void onCreate(Bundle savedInstanceState)
{
    super.onCreate(savedInstanceState);
    setContentView(R.layout.menulis_hijaiyah);


    Bundle bundle = getIntent().getExtras();

    type = bundle.getString("type");


    nextBtn = (ImageView) findViewById(R.id.nextId);
    playBtn = (ImageView) findViewById(R.id.playId);
    prevBtn = (ImageView) findViewById(R.id.prevId);
    nextBtn.setOnClickListener(this);
    nextBtn.setOnTouchListener(this);
    prevBtn.setOnClickListener(this);
    prevBtn.setOnTouchListener(this);
    playBtn.setOnClickListener(this);
    playBtn.setOnTouchListener(this);

```

```

drawingView = findViewById(R.id.drawingViewId);

params = (RelativeLayout.LayoutParams)
drawingView.getLayoutParams();

dv = new DrawingView(this);

dv.setLayoutParams(params);

parent = (ViewGroup) drawingView.getParent();
int index = parent.indexOfChild(drawingView);
parent.removeView(drawingView);
parent.addView(dv, index);

if (type.equals(Resource.MENULIS_HIJAIYAH)) {
    totalItem = Resource.hijaiyahOutline.length;

} else {

    totalItem = Resource.numberStroke.length;

}

mPaint = new Paint();

mPaint.setAntiAlias(true);

mPaint.setDither(true);

mPaint.setColor(Color.GREEN);

mPaint.setStyle(Paint.Style.STROKE);

mPaint.setStrokeJoin(Paint.Join.ROUND);

mPaint.setStrokeCap(Paint.Cap.ROUND);

mPaint.setStrokeWidth(16);

```

```

        updatePreviousButton();

    }

    public class DrawingView extends View {

        public int mWidth;

        public int mHeight;

        private Bitmap mBitmap;

        private Bitmap bm;

        private Canvas mCanvas;

        private Path mPath;

        private Paint mBitmapPaint;

        Context context;

        private Paint circlePaint;

        private Path circlePath;

        public DrawingView(Context c) {

            super(c);

            context = c;

            mPath = new Path();

            mBitmapPaint = new Paint(Paint.DITHER_FLAG);
            circlePaint = new Paint();

            circlePath = new Path();
            circlePaint.setAntiAlias(true);
            circlePaint.setColor(Color.BLUE);
            circlePaint.setStyle(Paint.Style.STROKE);
            circlePaint.setStrokeJoin(Paint.Join.MITER);
            circlePaint.setStrokeWidth(4f);

        }

        @Override

```

```

        protected void onSizeChanged(int w, int h, int oldw, int oldh)
        {
            super.onSizeChanged(w, h, oldw, oldh);

            mBitmap = Bitmap.createBitmap(w, h,
            Bitmap.Config.ARGB_8888);

            mCanvas = new Canvas(mBitmap);

            if (type.equals(Resource.MENULIS_HIJAIYAH)) {

                bm = BitmapFactory.decodeResource(getResources(),
                    Resource.hijaiyahOutline[position]);

            } else {

                bm = BitmapFactory.decodeResource(getResources(),

                    Resource.numberStroke[position]);

            }

            mCanvas.drawBitmap(bm,

                new Rect(0, 0, bm.getWidth(), bm.getHeight()), new
            Rect(0,

                0, mCanvas.getWidth(), mCanvas.getHeight()),
                mBitmapPaint);

        }

        @Override

        protected void onDraw(Canvas canvas) {

            super.onDraw(canvas);

            canvas.drawBitmap(mBitmap, 0, 0, mBitmapPaint);

            canvas.drawPath(mPath, mPaint);

```

```

        canvas.drawPath(circlePath, circlePaint);
    }

    private float mX, mY;

    private static final float TOUCH_TOLERANCE = 4;

    private void touch_start(float x, float y)
    { mPath.reset();

        mPath.moveTo(x, y);

        mX = x;

        mY = y;
    }

    private void touch_move(float x, float y) {

        float dx = Math.abs(x - mX);
        float dy = Math.abs(y - mY);

        if (dx >= TOUCH_TOLERANCE || dy >= TOUCH_TOLERANCE)
        { mPath.quadTo(mX, mY, (x + mX) / 2, (y + mY) /
            2); mX = x;

            mY = y;

            circlePath.reset();

            circlePath.addCircle(mX, mY, 30, Path.Direction.CW);
        }
    }

    private void touch_up() {

        mPath.lineTo(mX, mY);

        circlePath.reset();

        // commit the path to our offscreen
        mCanvas.drawPath(mPath, mPaint);

        // kill this so we don't double draw
        mPath.reset();
    }

```

```

    }

    @Override

    public boolean onTouchEvent(MotionEvent event) {
        float x = event.getX();

        float y = event.getY();

        switch (event.getAction()) {

            case MotionEvent.ACTION_DOWN:

                touch_start(x, y);

                invalidate();

                break;

            case MotionEvent.ACTION_MOVE:

                touch_move(x, y);

                invalidate();

                break;

            case MotionEvent.ACTION_UP:

                touch_up();

                invalidate();

                break;

        }

        return true;
    }

    public void resetCanvas() {

        bm = null;
    }

```

```

        mBitmap = null;

        System.gc();
    }

}

@Override

public boolean onTouch(View v, MotionEvent event)
{
    switch (event.getAction()) {

        case MotionEvent.ACTION_DOWN:

            if(v.getId() == R.id.nextId || v.getId() == R.id.playId

|| v.getId() == R.id.prevId)
                setAlpha(0.5f);

            break;

        case MotionEvent.ACTION_UP:

            if(v.getId() == R.id.nextId || v.getId() == R.id.playId

|| v.getId() == R.id.prevId)
                v.setAlpha(1.0f);

            break;

        default:

            break;

    }

    return false;
}

@Override

public void onClick(View v) {

    switch (v.getId()) {

        case R.id.nextId:

            position++;

            changeStroke();

```

```
        break;

    case R.id.prevId:

        position--;

        changeStroke();
```

```

        break;

        case R.id.playId:
            changeStroke();

            break;

        default:
            break;
    }
}

private void changeStroke() {
    updateNextButton();
    updatePreviousButton();

    int index = parent.indexOfChild(dv);
    dv.resetCanvas();

    dv = null;

    parent.removeViewAt(index);

    dv = new DrawingView(this);

    dv.setLayoutParams(params);

    parent.addView(dv, index);
}

private void updateNextButton() {
    if (position == totalItem - 1) {

        nextBtn.setAlpha(0.5f);

        nextBtn.setClickable(false);
    }
}

```

```
        } else {  
            nextBtn.setAlpha(1f);  
            nextBtn.setClickable(true);  
        }  
    }  
  
    private void updatePreviousButton() {  
        if (position == 0) {  
            prevBtn.setAlpha(0.5f);  
            prevBtn.setClickable(false);  
        } else {  
            prevBtn.setAlpha(1f);  
            prevBtn.setClickable(true);  
        }  
    }  
}
```

5. Cari_Hijaiyah.java

```

package com.android.belajarhijaiyah;

import android.os.Bundle;

import android.support.v7.app.ActionBar;

import android.support.v7.app.AppCompatActivity;
import android.support.v7.widget.SearchView;
import android.support.v7.widget.Toolbar; import
android.text.TextUtils; import
android.view.Menu;

import android.view.MenuItem;

import android.widget.ListView;

import java.util.ArrayList;

public class Cari_Hijaiyah extends AppCompatActivity {

    ListView listView;

    ListViewAdapter adapter;

    String[] title;

    String[] description;

    int[] icon;

    ArrayList<Model> arrayList = new ArrayList<Model>();

    @Override

    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_cari_hijaiyah);
    }

```

```

Toolbar toolbar = (Toolbar) findViewById(R.id.toolbar);
setSupportActionBar(toolbar);

ActionBar actionBar = getSupportActionBar();
actionBar.setTitle("Huruf Hijaiyah");

title = new String[]{
    "Alif", "Ba", "Ta", "Tsa", "Jim", "Ha", "Kho", "Dal",
    "Dzal", "Ra", "Zai", "Sin", "Syin", "Shad", "Dhad", "Tha",
    "Zha", "Ain", "Ghain", "Fa", "Qaf", "Kaf", "Lam", "Mim",
    "Nun", "Wau", "Hah", "Ya"};

description = new String[]{
    "Detail...", "Detail... ", "Detail...", "Detail... ",
    "Detail...",
    "Detail...", "Detail... ", "Detail...", "Detail... ",
    "Detail...",
    "Detail...", "Detail... ", "Detail...", "Detail... ",
    "Detail...",
    "Detail...", "Detail... ", "Detail...", "Detail... ",
    "Detail...",
    "Detail...", "Detail... ", "Detail..." };

icon = new int[]{
    R.drawable.alif_arab, R.drawable.ba_arab,

```

```

R.drawable.ta_arab, R.drawable.tsa_arab,

        R.drawable.jim_arab, R.drawable.ha_arab,
R.drawable.kho_arab, R.drawable.dal_arab,

        R.drawable.dzal_arab, R.drawable.ra_arab,
R.drawable.zai_arab, R.drawable.sin_arab,

        R.drawable.syin_arab, R.drawable.shad_arab,
R.drawable.dhad_arab, R.drawable.tha_arab,

        R.drawable.zha_arab, R.drawable.ain_arab,
R.drawable.ghain_arab, R.drawable.fa_arab,

        R.drawable.qaf_arab, R.drawable.kaf_arab,
R.drawable.lam_arab, R.drawable.mim_arab,

        R.drawable.nun_arab, R.drawable.wau_arab,
R.drawable.hah_arab, R.drawable.ya_arab

    };

    listView = findViewById(R.id.listView);

    for (int i =0; i<title.length; i++){

        Model model = new Model(title[i], description[i],
            icon[i]); //bind all strings in an array

        arrayList.add(model);
    }

    //pass results to listViewAdapter class

```

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```
        adapter = new ListViewAdapter(this, arrayList);

        //bind the adapter to the listview

        listView.setAdapter(adapter);

    }

    @Override

    public boolean onCreateOptionsMenu(Menu menu) {
        getMenuInflater().inflate(R.menu.menu, menu);

        MenuItem myActionMenuItem =
            menu.findItem(R.id.action_search); SearchView searchView =

        (SearchView)myActionMenuItem.getActionView()
            ; searchView.setOnQueryTextListener(new

        SearchView.OnQueryTextListener() {

            @Override

            public boolean onQueryTextSubmit(String s)
            { return false;

            }

            @Override

            public boolean onQueryTextChange(String s)
            { if (TextUtils.isEmpty(s)){

                adapter.filter("");

                listView.clearTextFilter();

            }

            else {
```

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```
        adapter.filter(s);  
    }  
  
    return true;  
    }  
});  
  
return true;  
}
```