SOAL TEST
PROGRAMMER ANDROID

QUERY STATEMENT dan PHP

1. Berikut ini adalah tabel Artis dan Tabel Film.

TABEL ARTIS

id_artis	Nama_Artis	gender	award	negara
A001	ROBERT DOWNEY JR	L	4	USA
A002	JACKY CHAN	L	4	CHN
A003	ANGELINA JOLIE	P	6	USA
A004	JOE TASLIM	L	3	INA
A005	STEPHEN CHOW	L	5	CHN
A006	IKO UWAIS	L	4	INA
A007	YAYAN RUHIYAN	L	2	INA
A008	CHELSEA ISLAN	P	0	INA

TABEL FILM

id_film	nama_film	genre	artis	pendapatan	nominasi
F001	Iron Man	G001	A001	2.000.000.000	5
F002	Iron Man 2	G001	A001	2.500.000.000	4
F003	The Raid	G002	A006	900.000.000	2
F004	Fast Furios	G004	A004	1.000.000.000	6
F005	Police Story	G003	A002	1.000.000.000	4
F006	Kungfu Panda	G003	A005	900.000.000	5
F007	Rush Hour	G004	A002	800.000.000	2
F008	Avenger	G001	A003	2.300.000.000	6
F009	Habibie Ainun	G002	A008	3.000.000.000	7

Dari tabel diatas, buatlah sql statement (My SQL atau SQL Server) untuk kriteria berikut

01. menampilkan nama film yang artisnya bukan berasal dari negara yang tidak mengandung huruf A

02. menampilkan nama film dan artis yang memiliki award terbanyak

03. menampilkan nama artis yang tidak pernah bermain film

Estimasi waktu : 20 menit.

Jawaban :

1	Syntax :
	SELECT nama_film genre, artis, pendapatan, nominasi FROM film
	INNER JOIN artis ON film.artis = artis.id_artis WHERE negara NOT LIKE '%A%'

Screenshot :

✔ Showing rows 0 - 2 (3 total, Query took 0.0052 seconds.)

SELECT nama_film genre, artis, pendapatan, nominasi FROM film INNER JOIN artis ON film.artis = artis.id_artis WHERE negara NOT LIKE '%A%'

☐ Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Ref

☐ Show all | Number of rows: 25 ⌄   Filter rows: Search this table   Sort by key: None ⌄

+ Options

genre	artis	pendapatan	nominasi
Police Story	A002	1000000000	4
Kungfu Panda	A005	900000000	5
Rush Hour	A002	800000000	2

2	Syntax :
	SELECT nama_film, artis.Nama_Artis FROM film
	INNER JOIN artis ON film.artis = artis.id_artis WHERE artis.award =
	(SELECT MAX(award) FROM artis)

Screenshot :

✔ Showing rows 0 - 0 (1 total, Query took 0.0033 seconds.)

SELECT nama_film, artis.Nama_Artis FROM film INNER JOIN artis ON film.artis = artis.id_artis WHERE artis.award = (SELECT MAX(award) FROM artis)

☐ Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Re

☐ Show all | Number of rows: 25 ⌄   Filter rows: Search this table

+ Options

nama_film	Nama_Artis
Avenger	ANGELINA JOLIE

3	Syntax :
	SELECT * FROM artis WHERE NOT EXISTS (SELECT * FROM film WHERE artis.id_artis = film.artis)
	Screenshot :

✅ Showing rows 0 - 0 (1 total, Query took 0.0066 seconds.)

```
SELECT * FROM artis WHERE NOT EXISTS (SELECT * FROM film WHERE artis.id_artis = film.artis)
```

☐ Profiling

☐ Show all | Number of rows: 25 ⌄ Filter rows: Search this table

+ Options

←T→	▽	id_artis	Nama_Artis	gender	award	negara
☐ 🖊 Edit ᴴ Copy ⊖ Delete		A007	YAYAN RUHIYAN	L	2	INA

↰ ☐ Check all With selected: 🖊 Edit ᴴ Copy ⊖ Delete 📤 Export

---

2. Sebuah Perusahaan bernama PT Surabaya Technology Information, Mempunyai Karyawan sebagai berikut:

    01.   Danang   Direktur
    02.   Nana   Manager
    03.   Joko Susilo   Karyawan
    04.   Putri   Pekerja Lain

    Buatlah sebuah program dengan menggunakan php dengan output: file excel yang menampilkan laporan gaji sederhana semua karyawan dengan format sbb:

PT Surabaya Technology Information
SLIP GAJI 2021

No.	Nama Karyawan	Jabatan	Gaji	Tunjangan	PPn	Total
1						
2						
3						
4						

Ketentuan Gaji :
01. Skema Gaji:
     Direktur   3.000.000
     Manajer   2.000.000
     Karyawan   1.000.000

Pekerja Lain   800.000
02. Tunjangan :   10% dari Gaji
03. PPN :   20% dari Gaji
04. Total : Gaji Bersih + Tunjangan - PPN

Estimasi waktu : 60 menit

Jawaban :
Link Github : TesMasukKerja/Soal2 at main · FerryJulyo/TesMasukKerja (github.com)

1	Syntax :

```php
<?php
header("Content-type: application/vnd-ms-excel");
header("Content-Disposition: attachment; filename=Gaji
Karyawan.xls");
?>

<center>
    <h3>PT Surabaya Technology Information <br/> SLIP GAJI
2021</h3>
</center>

<table border="1">
    <tr>
        <th>No</th>
        <th>Nama</th>
        <th>Jabatan</th>
        <th>Gaji</th>
        <th>Tunjangan</th>
        <th>Ppn</th>
        <th>Total</th>
    </tr>
    <?php
    // koneksi database
    $koneksi = mysqli_connect("localhost","root","","happypuppy");

    // menampilkan data pegawai
    $data = mysqli_query($koneksi,"select * from karyawan");
    $no = 1;
    $num = 5;
    while($d = mysqli_fetch_array($data)){
    ?>
    <tr>
        <td><?php echo $no++; ?></td>
        <td><?php echo $d['nama']; ?></td>
        <td><?php echo $d['jabatan']; ?></td>
```

```php
          <td><?php echo ('=IF(C'),$num,('="Direktur"; 3000000; IF(
C'),$num,('="Manager"; 2000000;IF( C'),$num,('="Karyawan";
1000000;800000)))');?></td>
          <td><?php echo ('=D'),$num,('*10%');?></td>
          <td><?php echo ('=D'),$num,('*20%');?></td>
          <td><?php echo ('=D'),$num,('+E'),$num,('-
F'),$num++;?></td>
      </tr>
      <?php
      }

      ?>
    </table>
```
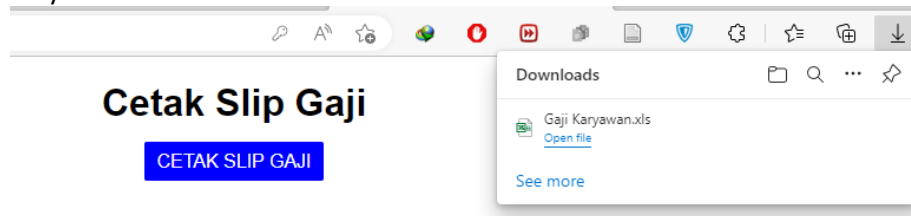
Screenshot :

+ Options

			no	nama	jabatan
☐	🖊 Edit	⧓ Copy ⊖ Delete	1	Danang	Direktur
☐	🖊 Edit	⧓ Copy ⊖ Delete	2	Nana	Manager
☐	🖊 Edit	⧓ Copy ⊖ Delete	3	Joko Susilo	Karyawan
☐	🖊 Edit	⧓ Copy ⊖ Delete	4	Putri	Pekerja Lain

↑__ ☐ Check all   *With selected:* 🖊 Edit   ⧓ Copy   ⊖ Delete   📥 Export

Tabel Karyawan

Cetak Slip Gaji

CETAK SLIP GAJI

Downloads
Gaji Karyawan.xls
Open file
See more

File excel akan terdownload saat mengklik CETAK SLIP GAJI

	A	B	C	D	E	F	G	H
1			**PT Surabaya Technology Information**					
2			**SLIP GAJI 2021**					
3								
4	No	Nama	Jabatan	Gaji	Tunjangan	Ppn	Total	
5	1	Danang	Direktur	3000000	300000	600000	2700000	
6	2	Nana	Manager	2000000	200000	400000	1800000	
7	3	Joko Susilo	Karyawan	1000000	100000	200000	900000	
8	4	Putri	Pekerja Lain	800000	80000	160000	720000	
9								
10								

Hasil file excel yang di hasilkan.

PROGRAM TEST BACK END DAN FRONT END SALING BERHUBUNGAN
1. BACK END NODE JS
1. Wajib menggunakan Express Js buatlah server node js berjalan dan listen di port 3000 dan ip address terserah/ip address pc
2. Dengan tool aplikasi POSTMAN, menggunakan method POST kirimkan lah/submit/Hit data dibawah ini
{user_id: 'AIN',user_password: 'AI1'}

(contoh url http://192.168.1.168:3000/user/login-fo-droid)
Jika sudah benar user =AIN dan password AI1
Maka respon yang dikembalikan adalah

```
{
  "state": true,
  "message": "succes",
  "data": {
    "user_id": "AIN",
    "user_password": "AI1",
    "level_user": "ACCOUNTING",
    "last_login": "29/12/2021 13:57:18",
    "master_management_mfo": true,
    "menu_transaksi_mfo": true,
    "sub_menu_mfo": true,
    "fo": true,
    "pos": true,
    "pop": true
  }
}
```

Jika salah Maka respon yang dikembalikan adalah

```
{
   "state": false,
   "message": "user AINv password AI1 tidak terdaftar",
   "data": null
}
```
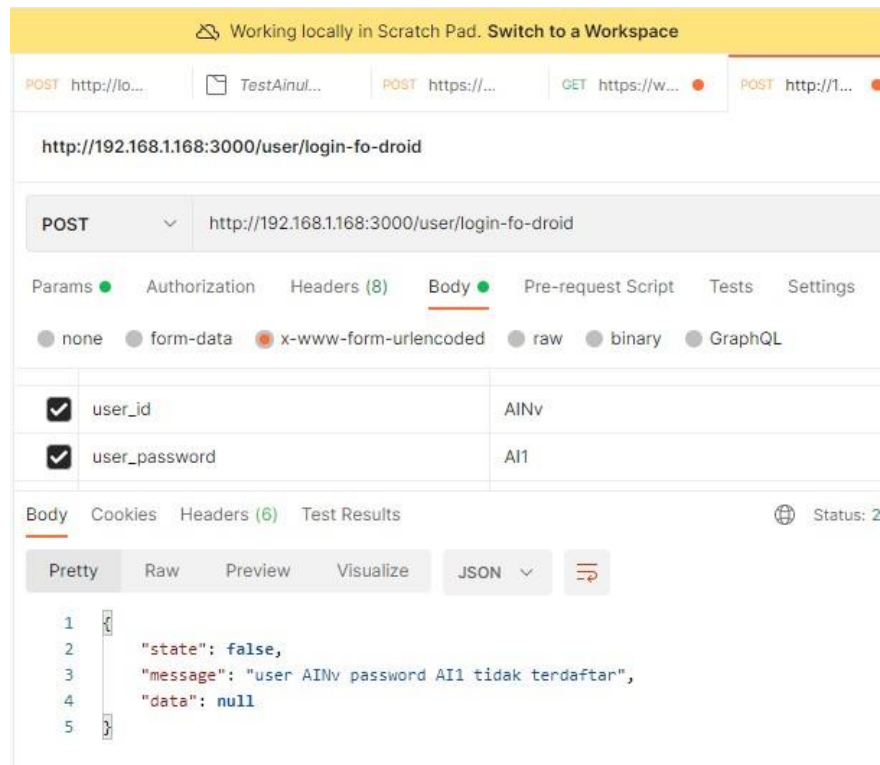
Contoh postman jika respon sukses
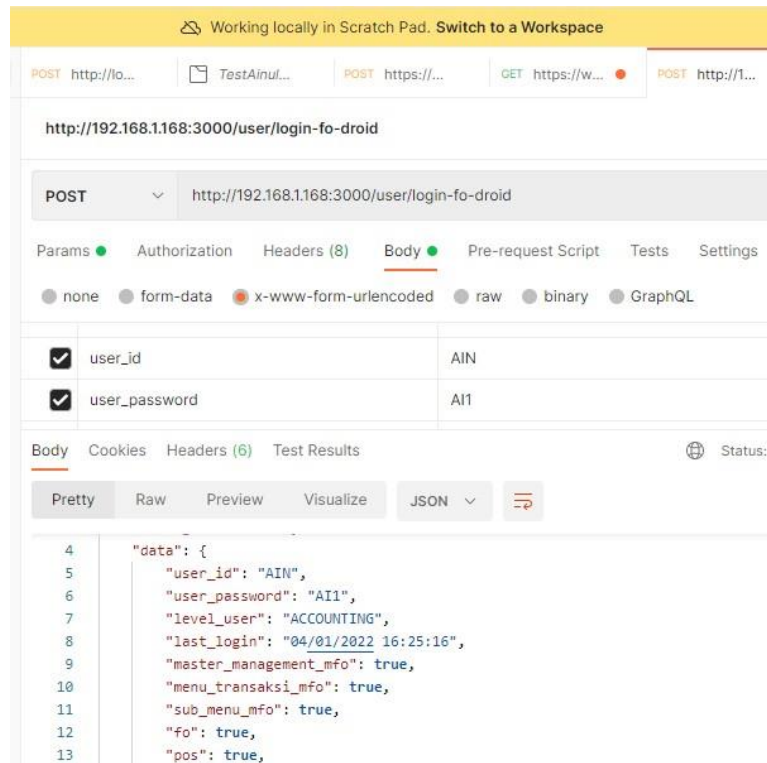
Contoh postman jika respon gagal

Estimasi waktu : 3 jam

Jawaban :

Link Github : TesMasukKerja/Soal3 at main · FerryJulyo/TesMasukKerja (github.com)

1	Syntax :

```
const express = require('express');
const bodyParser = require('body-parser');
const app = express();
const mysql = require('mysql');

// parse application/json
app.use(bodyParser.json());
app.use(bodyParser.urlencoded({ extended: true }));

//create database connection
const conn = mysql.createConnection({
  host: 'localhost',
  user: 'root',
  password: '',
  database: 'db_express'
});
```

```javascript
//connect to database
conn.connect((err) =>{
  if(err) throw err;
  console.log('Mysql Connected...');
});


app.get('/api/user',(req, res) => {
  let sql = "SELECT * FROM user";
  let query = conn.query(sql, (err, results) => {
    if(err) throw err;
    res.send(JSON.stringify({"status": 200, "error": null, "response":
results}));
  });
});


app.post('/api/user',(req, res) => {

  let data = {
  user_id : req.body.user_id,
  user_password : req.body.user_password};
  let sql = "SELECT * FROM user WHERE user_id = '"+req.body.user_id+"' AND
user_password = '"+req.body.user_password+"'";
  let query = conn.query(sql, data,(err, results) => {
    if(err) throw err;
    if(results == '') {
        results = "Data tidak ditemukan"
    }
    res.send(JSON.stringify({"status": 200, "error": null, "response":
results}));
  });
});


//Server listening
app.listen(3000,'10.208.205.188',() =>{
  console.log('Server started on port 3000...');
});
```

Screenshot :

10.208.205.188:3000/api/user

POST ⌄ 10.208.205.188:3000/api/user Send ⌄

Params Authorization Headers (8) Body ● Pre-request Script Tests Settings Cookies

○ none ○ form-data ● x-www-form-urlencoded ○ raw ○ binary ○ GraphQL

	KEY	VALUE	DESCRIPTION	ooo	Bulk Edit
☑	user_id	AIN			
☑	user_password	AI1			
	Key	Value	Description		

Body Cookies Headers (7) Test Results   ⊕ Status: 200 OK Time: 18 ms Size: 347 B Save Response ⌄

Pretty Raw Preview Visualize HTML ⌄ ⇥

```
1  {"status":200,"error":null,"response":[{"user_id":"AIN","user_password":"AI1","user_email":"ferryjulyo86@gmail.com"}]}
```

10.208.205.188:3000/api/user   💾 Save ⌄

POST ⌄ 10.208.205.188:3000/api/user Send ⌄

Params Authorization Headers (8) Body ● Pre-request Script Tests Settings Cookies

○ none ○ form-data ● x-www-form-urlencoded ○ raw ○ binary ○ GraphQL

	KEY	VALUE	DESCRIPTION	ooo	Bulk Edit
⠿ ☑	user_id	AINv			🗑
☑	user_password	AI1			
	Key	Value	Description		

Body Cookies Headers (7) Test Results   ⊕ Status: 200 OK Time: 10 ms Size: 289 B Save Response ⌄

Pretty Raw Preview Visualize HTML ⌄ ⇥

```
1  {"status":200,"error":null,"response":"Data tidak ditemukan"}
```

2. FRONT END ANDROID

Buatlah halaman login dengan post data sama dengan dengan soal diatas **TEST SKILL BACK END NODE JS** , jika soal diatas menggunakan postman maka untuk **TEST SKILL FRONT END ANDROID** ini menggunakan android studio dan java sebagai pengganti postman silahkan menggunakan libray yang ada bisa.

Estimasu waktu : 4 jam

Jawaban :
Link Github : TesMasukKerja/Soal4 at main · FerryJulyo/TesMasukKerja (github.com)

1	DBHelper.java

```java
package com.ferry.loginhappypuppy;

import android.annotation.SuppressLint;
import android.content.Context;
import android.database.Cursor;
import android.database.sqlite.SQLiteDatabase;
import android.database.sqlite.SQLiteOpenHelper;

public class DBHelper extends SQLiteOpenHelper {

    public static final String DBNAME = "HappyPuppy.db";

    public DBHelper(Context context) {
        super(context, DBNAME, null, 1);
    }

    @Override
    public void onCreate(SQLiteDatabase DB) {
        DB.execSQL("create table users(id INTEGER primary key autoincrement, username TEXT, password TEXT, level TEXT)");
        DB.execSQL("INSERT INTO users(username, password, level) VALUES ('AIN','AI1','ACCOUNTING')");
    }

    @Override
    public void onUpgrade(SQLiteDatabase DB, int i, int i1) {
        DB.execSQL("drop Table if exists users");
    }

    public  Boolean checkUsernamePassword(String username, String password){
        SQLiteDatabase DB = this.getWritableDatabase();
        @SuppressLint("Recycle") Cursor cursor = DB.rawQuery("Select * from users where username = ? and password = ?", new String[] {username,password});
        return cursor.getCount() > 0;
    }
}
```

HomeActivity.java

```java
package com.ferry.loginhappypuppy;

import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;
import android.os.Bundle;
```

```java
import android.view.View;
import android.widget.Button;

public class HomeActivity extends AppCompatActivity {
    Button btnLogout;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_home);

        btnLogout    = (Button) findViewById(R.id.btnLogout);

        btnLogout.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                SessionHelper sessionHelper = new
SessionHelper(HomeActivity.this);
                sessionHelper.removeSession();

                moveToLogin();
            }
        });
    }

    private  void  moveToLogin(){
        Intent intent = new
Intent(getApplicationContext(),LoginActivity.class);

intent.setFlags(Intent.FLAG_ACTIVITY_CLEAR_TASK|Intent.FLAG_ACTIVITY_NEW_TASK)
;
        startActivity(intent);
        finish();
    }
}
```

LoginActivity.java
```java
package com.ferry.loginhappypuppy;

import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.Toast;

public class LoginActivity extends AppCompatActivity {

    EditText username, password;
    Button btnLogin;
    DBHelper DB;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_login);
```

```java
        username    = (EditText) findViewById(R.id.username);
        password    = (EditText) findViewById(R.id.password);
        btnLogin    = (Button) findViewById(R.id.btnLogin);
        DB = new DBHelper(this);

        SessionHelper sessionHelper = new SessionHelper(LoginActivity.this);
        int userSession = sessionHelper.getSession();

        if(userSession != -1){
            moveToHomeActivity();
        }

        btnLogin.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                String user = username.getText().toString();
                String pass = password.getText().toString();

                if(user.equals("")||pass.equals(""))
                    Toast.makeText(LoginActivity.this, "Mohon isi username dan
password", Toast.LENGTH_SHORT).show();
                else{
                    Boolean checkuserpass = DB.checkUsernamePassword(user,
pass);
                    if(checkuserpass) {
                        Toast.makeText(LoginActivity.this, "Login Berhasil",
Toast.LENGTH_SHORT).show();
                        Users users = new Users(1,user, pass);
                        SessionHelper sessionHelper = new
SessionHelper(LoginActivity.this);
                        sessionHelper.saveSession(users);

                        moveToHomeActivity();
                    }else{
                        Toast.makeText(LoginActivity.this, "Username atau
Password salah", Toast.LENGTH_SHORT).show();
                    }
                }
            }
        });


    }

    private  void  moveToHomeActivity(){
        Intent intent = new
Intent(getApplicationContext(),HomeActivity.class);

intent.setFlags(Intent.FLAG_ACTIVITY_CLEAR_TASK|Intent.FLAG_ACTIVITY_NEW_TASK)
;
        startActivity(intent);
        finish();
    }
}
```

SplashScreen.java

```java
package com.ferry.loginhappypuppy;
```

```java
import android.content.Intent;
import android.os.Bundle;
import android.os.Handler;
import android.view.Window;
import androidx.appcompat.app.AppCompatActivity;

public class SplashScreen extends AppCompatActivity {

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);

        //menghilangkan ActionBar
        this.requestWindowFeature(Window.FEATURE_NO_TITLE);
        setContentView(R.layout.activity_splash_screen);

        final Handler handler = new Handler();
        handler.postDelayed(new Runnable() {
            @Override
            public void run() {
                startActivity(new Intent(getApplicationContext(),
LoginActivity.class));
                finish();
            }
        }, 3000L); //3000 L = 3 detik
    }
}
```

SessionHelper.java
```java
package com.ferry.loginhappypuppy;

import  android.content.Context;
import  android.content.SharedPreferences;

public class SessionHelper {
    SharedPreferences sharedPreferences;
    SharedPreferences.Editor editor;
    String SHARED_PREF_NAME = "session";
    String SESSION_KEY = "session_user";

    public  SessionHelper(Context context){
        sharedPreferences = context.getSharedPreferences(SHARED_PREF_NAME,
Context.MODE_PRIVATE);
        editor = sharedPreferences.edit();
    }

    public  void  saveSession(Users user){
        int session = user.getSession();

        editor.putInt(SESSION_KEY, session).commit();
    }

    public int getSession(){
        return sharedPreferences.getInt(SESSION_KEY, -1);
    }

    public void removeSession(){
```

```java
            editor.putInt(SESSION_KEY, -1).commit();
    }
}
```

Users.java
```java
package com.ferry.loginhappypuppy;

public class Users {
    int session;
    String username;
    String password;

    public Users(int session, String username, String password) {
        this.session = session;
        this.username = username;
        this.password = password;
    }

    public int getSession() {
        return session;
    }

    public void setSession(int session) {
        this.session = session;
    }

    public String getUsername() {
        return username;
    }

    public void setUsername(String username) {
        this.username = username;
    }

    public String getPassword() {
        return password;
    }

    public void setPassword(String password) {
        this.password = password;
    }
}
```

activity_splash_screen.xml
```xml
<?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:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".SplashScreen"
    android:id="@+id/splashscreen">

    <ImageView
        android:id="@+id/logo"
        android:layout_width="270dp"
        android:layout_height="270dp"
```

```xml
        android:layout_centerInParent="true"
        android:backgroundTint="#FFFFFF"
        android:scaleType="centerCrop"
        android:src="@drawable/logo"/>

</RelativeLayout>
```

activity_login.xml
```xml
<?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:layout_width="match_parent"
    android:layout_height="match_parent"
    android:padding="20dp"
    tools:context=".LoginActivity">

    <ImageView
        android:id="@+id/logo"
        android:layout_width="200dp"
        android:layout_height="200dp"
        android:layout_centerHorizontal="true"
        android:layout_marginTop="40dp"
        android:backgroundTint="#FFFFFF"
        android:src="@drawable/logo" />

    <TextView
        android:id="@+id/appName"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_below="@+id/logo"
        android:layout_marginTop="10dp"
        android:fontFamily="@font/cassannet_plus_regular"
        android:text="@string/namaApp"
        android:textAlignment="center"
        android:textColor="@color/mainColor"
        android:textSize="40dp"
        android:textStyle="bold" />

    <EditText
        android:id="@+id/username"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_below="@+id/appName"
        android:layout_marginTop="50dp"
        android:hint="User Name"
        android:minHeight="48dp" />

    <EditText
        android:id="@+id/password"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_below="@+id/username"
        android:layout_marginTop="30dp"
        android:hint="Password"
        android:inputType="textPassword"
        android:minHeight="48dp" />
```

```xml
    <Button
        android:layout_width="200dp"
        android:layout_height="wrap_content"
        android:layout_centerHorizontal="true"
        android:id="@+id/btnLogin"
        android:text="Login"
        android:backgroundTint="@color/mainColor"
        android:layout_marginTop="50dp"
        android:layout_below="@+id/password"
        android:minHeight="48dp"/>
</RelativeLayout>
```

activity_home.xml
```xml
<?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:layout_width="match_parent"
    android:layout_height="match_parent"
    android:padding="20dp"
    tools:context=".LoginActivity">

    <ImageView
        android:id="@+id/logo"
        android:layout_width="200dp"
        android:layout_height="200dp"
        android:layout_centerHorizontal="true"
        android:layout_marginTop="40dp"
        android:backgroundTint="#FFFFFF"
        android:src="@drawable/logo" />

    <TextView
        android:id="@+id/appName"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_below="@+id/logo"
        android:layout_marginTop="10dp"
        android:fontFamily="@font/cassannet_plus_regular"
        android:text="@string/namaApp"
        android:textAlignment="center"
        android:textColor="@color/mainColor"
        android:textSize="40dp"
        android:textStyle="bold" />

    <TextView
        android:id="@+id/greeting"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_below="@+id/appName"
        android:layout_marginTop="10dp"
        android:text="@string/greeting"
        android:textAlignment="center"
        android:textColor="@color/mainColor"
        android:textSize="20dp"
        android:textStyle="bold" />
```

```xml
        <Button
            android:layout_width="200dp"
            android:layout_height="wrap_content"
            android:layout_centerHorizontal="true"
            android:id="@+id/btnLogout"
            android:text="Logout"
            android:backgroundTint="@color/mainColor"
            android:layout_marginTop="50dp"
            android:layout_below="@+id/greeting"
            android:minHeight="48dp"/>
</RelativeLayout>
```
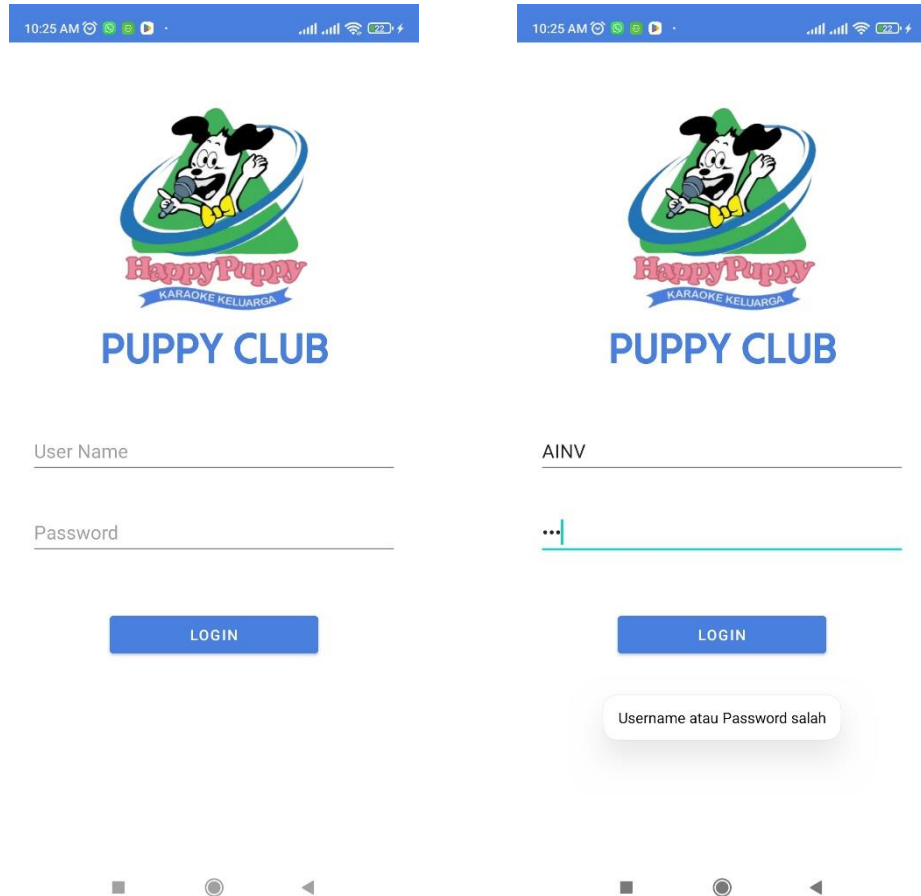
Screenshot :

Tampilan login dan notifikasi saat salah menginputkan username dan password

Tampilan saat berhasil login

-SELESAI-