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

* 1. menampilkan nama film yang artisnya bukan berasal dari negara yang tidak mengandung huruf

A

* 1. menampilkan nama film dan artis yang memiliki award terbanyak
  2. 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 : |
| 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 : |

|  |  |
| --- | --- |
| 3 | Syntax :  SELECT \* FROM artis WHERE NOT EXISTS (SELECT \* FROM film WHERE artis.id\_artis = film.artis)  Screenshot : |

1. Sebuah Perusahaan bernama PT Surabaya Technology Information, Mempunyai Karyawan sebagai berikut:
   1. Danang Direktur
   2. Nana Manager
   3. Joko Susilo Karyawan
   4. 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 :**

1. Skema Gaji:

Direktur 3.000.000

Manajer 2.000.000

Karyawan 1.000.000

Pekerja Lain 800.000

1. Tunjangan : 10% dari Gaji
2. PPN : 20% dari Gaji
3. Total : Gaji Bersih + Tunjangan - PPN Estimasi waktu : 60 menit

Jawaban

Jawaban :

|  |  |
| --- | --- |
| 1 | Syntax :      <?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 $d['jabatan']; ?></td>              <td><?php echo ('=IF(C'),$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 :    Tabel Karyawan    File excel akan terdownload saat mengklik  **CETAK SLIP GAJI**    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

}

}

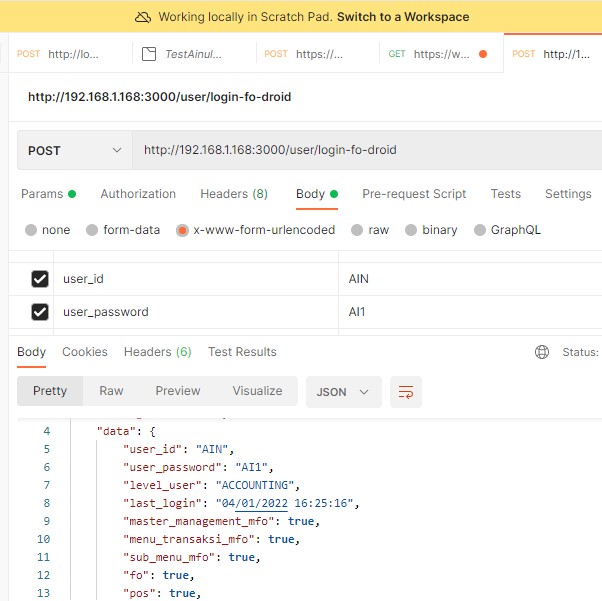
Jika salah Maka respon yang dikembalikan adalah

{

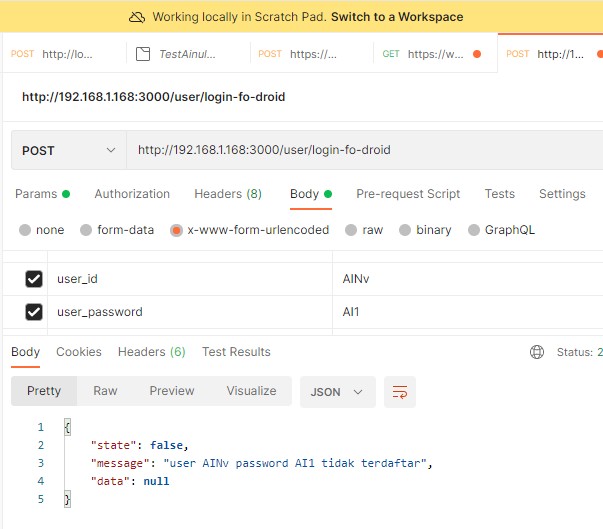
"state": false,

"message": "user AINv password AI1 tidak terdaftar", "data": null

}

Contoh postman jika respon sukses

Contoh postman jika respon gagal



Estimasi waktu : 3 jam

Jawaban :

|  |  |
| --- | --- |
| 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'  });    //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 : |

# 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 :

|  |  |
| --- | --- |
| 1 | DBHelper.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  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;  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  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*);   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  package com.ferry.loginhappypuppy;  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  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(){  editor.putInt(SESSION\_KEY, -1).commit();  } } |
|  | Users.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 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"  android:layout\_centerInParent="true"  android:backgroundTint="#FFFFFF"  android:scaleType="centerCrop"  android:src="@drawable/logo"/>  </RelativeLayout> |
|  | activity\_login.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" />   <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 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" />   <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-