

- 1) Create a login form, both username and password fields are mandatory, After entering the values transfer user control to next page showing message using Toast as " You have login successfully ". Use username "Abc" and password "123" to check valid or not.

### Activity\_login.xml

<LinearLayout

```
  xmlns:android = "https://schemas.android.com/apk/res/android"
  android:layout_width = "match_parent"
  android:layout_height = "match_parent"
  android:orientation = "vertical"
  android:padding = "16dp"
  android:gravity = "center">
```

<EditText>

```
  android:id = "@+id/etUsername"
  android:layout_width = "match_parent"
  android:layout_height = "match_parent"
  android:hint = "Username"
  android:inputType = "text" />
```

<EditText>

```
  android:id = "@+id/etPassword"
  android:layout_width = "match_parent"
  android:layout_height = "match_parent"
  android:hint = "Password"
  android:inputType = "textPassword" />
```

```

        <Button
            android:id="@+id/btnLogin"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:text="Login"/>
    </LinearLayout>

```

### MainActivity.java

```

package com.example.login;

import android.*;
import android.app.AppCompatActivity;
import android.widget.EditText;
import android.widget.Button;

public class MainActivity extends AppCompatActivity {
    EditText etUsername, etPassword;
    Button btnLogin;

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

        etUsername = findViewById(R.id.etUsername);
        etPassword = findViewById(R.id.etPassword);
        btnLogin = findViewById(R.id.btnLogin);
    }
}

```

**@Override**

```
public void onClick (View v) {
    String username = etUsername.getText().toString();
    String password = etPassword.getText().toString();
```

If (username.equals("Abc") & password.equals("123"))

Toast.makeText (MainActivity.this, "You have  
logged in successfully", Toast.LENGTH\_  
SHORT).show();

In intent = new Intent (MainActivity.this,  
NextActivity.class);

startActivity (intent);

else {

Toast.makeText (MainActivity.this,  
"Invalid username or password",  
Toast.LENGTH\_SHORT).show();

}

3

});

3

Log.d ("MyApp", "Clicked login button");

String str = "Clicked login button";

FileOutputStream fos = openFileOutput ("log.txt", MODE\_APPEND);

fos.write (str.getBytes());

fos.close ();

Toast.makeText (MainActivity.this, "Logged in",  
Toast.LENGTH\_SHORT).show();

Intent intent = new Intent (MainActivity.this,  
NextActivity.class);

startActivity (intent);

String str = "Logged in";

FileOutputStream fos = openFileOutput ("log.txt", MODE\_APPEND);

fos.write (str.getBytes());

fos.close ();

NextActivity.java

package com.example.lojith;

```
import android.os.Bundle;
import androidx.appcompat.app.AppCompatActivity;
```

```
public class NextActivity extends AppCompatActivity {
```

```
    @Override
```

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

```
        Toast.makeText(NextActivity.this, "Welcome to  
the Next Page!", Toast.LENGTH_LONG).show();
    }
```

activity-next.xml

```
<LinearLayout>
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:gravity="center"
    android:orientation="vertical">
```

```
    <TextView>
```

```
        android:id="@+id/tvwelcome"
```

```
        android:layout_width="wrap-content"
```

```
        android:layout_height="wrap-content"
```

```
        android:text="Welcome!"
```

```
        android:textSize="24sp"
```

```
        android:textStyle="bold"/>
```

```
</LinearLayout>
```

Pd

- 2) Write an android application using SQLite to create employee (eid, ename, adpt, esalary) table and insert a record in table and display appropriate message on toast to user.

Database.java

package com.example.employee;

import android.os.Bundle;

public class Employee extends SQLiteOpenHelper {

private static final String DATABASE\_NAME = "Employee";

private static final int DATABASE\_VERSION = 1;

public static final String TABLE\_EMPLOYEE = "employee";

public static final String COLUMN\_EID = "eid";

public static final String COLUMN\_ENAME = "ename";

public static final String COLUMN\_ADPT = "adpt";

public static final String COLUMN\_ESALARY = "esalary";

private static final String CREATE\_TABLE\_EMPLOYEE

= "CREATE TABLE " + TABLE\_EMPLOYEE + " (" +

COLUMN\_EID + " INTEGER PRIMARY KEY AUTOINCREMENT," +

COLUMN\_ENAME + " TEXT," +

COLUMN\_ADPT + " TEXT," +

COLUMN\_ESALARY + " NUMBER" + ")";

public class

public Employee(Context context) {  
super(context, "EmployeeDB", null, 1);

@Override

public void onCreate(SQLiteDatabase db) {

db.execSQL("Create Table employee(eid int  
primary key, ename text, adept text, esalary Number");

public boolean insertEmployee(String ename, String  
adept, double esalary) {

SQLiteDatabase db = this.getWritableDatabase();  
ContentValues values = new ContentValues();

values.put("ename", ename);

values.put("adept", adept);

values.put("esalary", esalary);

return db.insert("employee", null, values);

3. Now run the application and check the database.

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## activity\_main.xml

<LinearLayout

    xmlns: android = "http://schemas.android.com/apk/res/

        android: layout\_width = "match\_parent"

        android: layout\_height = "match\_parent"

        android: orientation = "vertical"

        android: padding = "16dp" >

            <EditText

                android: id = "@+id/F\_Name"

                android: hint = "Employee Name"

                android: layout\_width = "match\_parent" />

            <EditText

                android: id = "@+id/crAddept"

                android: hint = "Department"

                android: layout\_width = "match\_parent" />

            <EditText

                android: id = "@+id/orSalary"

                android: hint = "Salary" />

                android: layout\_width = "match\_parent"

                android: inputType = "numberDecimal" />

            <Button

                android: id = "@+id/btnInsert"

                android: text = "Insert Record"

                android: layout\_width = "wrap\_content" />

        </LinearLayout>

## MainActivity.java

```
package com.example.employee;
import android.os.Bundle;
import androidx.appcompat.app.AppCompatActivity;
public class MainActivity extends AppCompatActivity {
    EditText etName, etDept, etSalary;
    Button btnInsert;
    Employee dbHelper;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        etName = findViewById(R.id.etName);
        etDept = findViewById(R.id.etDept);
        etSalary = findViewById(R.id.etSalary);
        etBtnInsert = findViewById(R.id.btnInsert);
        dbHelper = new Employee(this);
    }
    @Override
    public void onClick(View v) {
        String ename = etName.getText().toString();
        String eDept = etDept.getText().toString();
        double esalary = Double.parseDouble(
            etSalary.getText().toString());
    }
}
```

if (dbHelper.insertEmployee (ename, address,  
 esalary))  
 Toast.makeText (mainActivity.this,  
 "Record Inserted", Toast.LENGTH\_SHORT).  
 show();

} else {  
 Toast.makeText (mainActivity.this, "failed",  
 Toast.LENGTH\_SHORT).show();

3

3. To insert the data into the database table  
 want to be inserted need to make a class  
 Employee & create variables with single string

& function for take parameter & insert into database  
 & function for retrieve data from database

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3) demonstrate a SQLite database application to insert a record in table.

DBHelper.java

package com.example.sqlite;

import android.database.sqlite.SQLiteDatabase;

public class DBHelper extends SQLiteOpenHelper {

private static final String DATABASE\_NAME = "Employee";

private static final int DatabaseVersion = 2;

private static final String tableName = "employee";

private static final String column\_id = "eid";

private static final String column\_name = "ename";

private static final String column\_dept = "dept";

private static final String column\_salary = "salary";

private static final String createTable = "CREATE TABLE  
+ TABLE\_NAME + "C" + "

COLUMN\_ID + " INTEGER PRIMARY KEY," +

COLUMN\_NAME + " TEXT," +

COLUMN\_DEPT + " TEXT," +

COLUMN\_SALARY + " REAL);"

public DBHelper(Context context) {

super(context, DATABASE\_NAME, null, DATABASE\_VERSION);

3

`@Override`

`public void oncreate (SQLiteDatabase db) {  
 db.execSQL ("CREATE TABLE") ;`

`public boolean insertEmployee (String ename, String dept,  
 double esalary) {  
 SQLiteDatabase db = this.getWritableDatabase ();  
 ContentValues values = new ContentValues ();  
 values.put (column_name, ename);  
 values.put (column_dept, dept);  
 values.put (column_salary, esalary);`

`long result = db.insert (table_name, null, values);  
return result; }`

`MainActivity.java` & `values`

```
package com.example.sqlite;  
import android.os.Bundle;  
import androidx.appcompat.app.AppCompatActivity;
```

```
public class MainActivity extends AppCompatActivity {
```

```
    EditText etName, etDept, etSalary;
```

```
    Button bInsert;
```

```
    DBHelper dbhelper;
```

### @Override

protected void onCreate(Bundle savedInstanceState)

{ super.onCreate(savedInstanceState); }

setContentView(R.layout.activity\_main);

etName = findViewById(R.id.etFName);

etAdept = findViewById(R.id.etAdept);

etSalary = findViewById(R.id.etSalary);

bmiInsert = findViewById(R.id.bnInsert);

dbHelper = new DBHelper(this);

bmiInsert.setOnClickListener(new View.OnClickListener{

{ @Override

public void onClick(View v) {

String ename = etFName.getText().toString();

String adept = etAdept.getText().toString();

double esalary = Double.parseDouble(

(etSalary.getText().toString()));

if (dbHelper.insertEmployee(ename, adept,

esalary)) {

Toast.makeText(MainActivity.this,

"Record inserted successfully", Toast.

LENGTH\_SHORT).show();

else {

Toast.makeText(MainActivity.this, "failed",

Toast.LENGTH\_SHORT).show();

}

3)

3

3

Page No. : \_\_\_\_\_  
Date. : / /

- a) Write a program to demonstrate below UI and pass data (first name and last name) from Activity one to activity two. Display passed data in text view on Activity two.

Activity one

<input type="text"/>	Enter your first name
<input type="text"/>	Enter your last name
<input type="button" value="submit"/>	

Activity two

Hello Mr/Mrs; First-Name Last-Name

ActivityOne.java

```
package com.example.activityone;
import android.*;
import androidx.appcompat.app.AppCompatActivity;
public class ActivityOne extends AppCompatActivity {
    private EditText FirstNameEditText;
    private EditText LastNameEditText;
    private Button passDataButton;
```

@override

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

```
    FirstNameEditText = findViewById(R.id.editTextFirstName);
    LastNameEditText = findViewById(R.id.editTextLastName);
    passDataButton = findViewById(R.id.buttonPassData);
```

```
    passDataButton.setOnClickListener(new View.OnClickListener() {  
        @Override  
        public void onClick(View v) {  
            String firstName = firstNameEditText.getText().toString();  
            String lastName = lastNameEditText.getText().toString();  
        }  
    });
```

Intent intent = new Intent(ActivityOne.this,  
ActivityTwo.class);

```
intent.putExtra("first-name", firstName);  
intent.putExtra("last-name", lastName);
```

startActivity(intent);

3)

3);

3

3

3

3

3

3

startActivity

3

3

3

3

3

3

### ActivityTwo.java

```

package com.example.activityone;
import android.os.Bundle;
import android.app.AppCompatActivity;
public class ActivityTwo extends AppCompatActivity {
    private TextView displayTextView;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_two);
        displayTextView = findViewById(R.id.textViewDisplay);
        String firstName = getIntent().getStringExtra("First Name");
        String lastName = getIntent().getStringExtra("Last Name");
        displayTextView.setText("Hello Mr/Mrs: " + firstName
            + " " + lastName);
    }
}
  
```

3) (getting data from another application)  
 a) make a new project example  
 b) run after installing ADB and emulator

c) WAP to demonstrate web services.

Get Request : <https://res.es.in/api/users?page=2>

Use any library to make a get request and parse response into data model class and show it on the UI.

```
public class User {
```

```
    private int id;
```

```
    private String email;
```

```
    private String first_name;
```

```
    private String last_name;
```

```
    private String avatar;
```

```
    // Getters and setters omitted for brevity
```

#### \* Retrofit Interface :-

Define a Retrofit interface to declare the API endpoint and the GET request method:

```
public interface UserService {
```

```
    @GET("api/Users")
```

```
    Call<List<User>> getUsers(@Query("page") int page);
```

3

#### \* Network call and UI update :-

```
public class MainActivity extends Activity {
```

```
    private TextView textView;
```

```
@Override
```

```
protected void onCreate(Bundle savedInstanceState) {
```

```
    super.onCreate(savedInstanceState);
```

```
    setContentView(R.layout.activity_main);
```

## Interview - Android By D. (P. Id. user - date - test) :-

// Build Retrofit instance

```
Retrofit retrofit = new Retrofit.Builder()
```

```
.baseUrl("https://regres.in")
```

```
.addConverterFactory(GsonConverterFactory.create())
```

```
.build();
```

// Create 'service' instance

```
UserService userService = retrofit.create(UserService.class);
```

// make API request (page 22)

```
Call<List<User>> call = userService.getUsers();
```

call.enqueue(new callback<List<User>>() {

@Override

```
public void onResponse(Response<List<User>> response)
```

```
{ if (response.isSuccessful()) {
```

```
list<User> users = response.body();
```

```
if (users != null && !users.isEmpty()) {
```

```
StringBuilder sb = new StringBuilder();
```

```
for (User user : users) {
```

```
sb.append("ID").append(user.getId()).  
append("\n");
```

```
sb.append("Email:").append(user.getEmail()).  
append("\n");
```

```
sb.append("Name").append(user.getName());
```

```
sb.append("Age").append(user.getAge());  
sb.append("Gender").append(user.getGender());  
sb.append("Phone").append(user.getPhone());
```

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- 7) Create an activity and demonstrate life cycle of activity with toast messages or logs.

```

package com.example.lifecycle;
import android.*;
public class MainActivity extends AppCompatActivity {
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        Toast.makeText(this, "onCreate called", Toast.LENGTH_SHORT).show();
    }
    @Override
    protected void onStart() {
        super.onStart();
        Toast.makeText(this, "onStart - called", Toast.LENGTH_SHORT).show();
    }
    @Override
    protected void onResume() {
        super.onResume();
        Toast.makeText(this, "onResume called", Toast.LENGTH_SHORT).show();
    }
    @Override
    protected void onPause() {
        super.onPause();
        Toast.makeText(this, "onPause called", Toast.LENGTH_SHORT).show();
    }
}

```

3  
@onidle {  
protected wid onstop() {  
super.onstop();  
Toast.makeText(this, "onstop called",  
Toast.LENGTH\_SHORT).show();  
}

@onidle {  
protected wid onRestart() {  
super.onRestart();  
}

Toast.makeText(this, "onRestart called",  
Toast.LENGTH\_SHORT).show();  
}

3  
@onidle {  
protected wid onDestroy() {  
super.onDestroy();  
}

Toast.makeText(this, "onDestroy called",  
Toast.LENGTH\_SHORT).show();  
}

3  
@onidle {  
protected wid onWindowFocusChanged(  
boolean hasFocus) {  
if (hasFocus) {  
Toast.makeText(this, "onWindowFocusChanged",  
Toast.LENGTH\_SHORT).show();  
}  
}  
}

3  
@onidle {  
protected wid onLayout(boolean changed,  
int left, int top, int right, int bottom) {  
if (changed) {  
Toast.makeText(this, "onLayout",  
Toast.LENGTH\_SHORT).show();  
}  
}  
}

3  
@onidle {  
protected wid onAttachedToWindow() {  
Toast.makeText(this, "onAttachedToWindow",  
Toast.LENGTH\_SHORT).show();  
}  
}

3  
@onidle {  
protected wid onDetachedFromWindow() {  
Toast.makeText(this, "onDetachedFromWindow",  
Toast.LENGTH\_SHORT).show();  
}  
}

3  
@onidle {  
protected wid onDraw(Canvas canvas) {  
super.onDraw(canvas);  
Toast.makeText(this, "onDraw",  
Toast.LENGTH\_SHORT).show();  
}  
}

3  
@onidle {  
protected wid onMeasure(int widthMeasureSpec,  
int heightMeasureSpec) {  
super.onMeasure(widthMeasureSpec,  
heightMeasureSpec);  
Toast.makeText(this, "onMeasure",  
Toast.LENGTH\_SHORT).show();  
}  
}

3  
@onidle {  
protected wid onInvalidate() {  
super.onInvalidate();  
Toast.makeText(this, "onInvalidate",  
Toast.LENGTH\_SHORT).show();  
}  
}

3  
@onidle {  
protected wid onSizeChanged(int w,  
int h, int oldw, int oldh) {  
super.onSizeChanged(w, h, oldw, oldh);  
Toast.makeText(this, "onSizeChanged",  
Toast.LENGTH\_SHORT).show();  
}  
}

- 8) Create an activity and load any fragment on it.  
 Write all life cycle methods of fragment with toast messages

### MainActivity.java

```
package com.example.fragments;
import android.*;
import android.app.FragmentTransaction;
import android.app.FragmentManager;
import android.app.Fragment;
import android.os.Bundle;
import android.view.LayoutInflater;
import android.view.View;
import android.view.ViewGroup;
import android.widget.Toast;
import androidx.appcompat.app.AppCompatActivity;
```

**@Override**

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

    FragmentTransaction transaction = getSupportFragmentManager().beginTransaction();
    transaction.replace(R.id.fragment_container, new MyFragment());
    transaction.commit();
}
```

transaction.replace(R.id.fragment\_container, new MyFragment());

transaction.commit();

### myfragment.java

```
package com.example.fragment  
import android.*  
import androidx.fragment.*  
public class Myfragment extends Fragment {  
    @Override  
    public void onAttach(Context context) {  
        super.onAttach(context);  
        Toast.makeText(context, "fragment onAttach",  
            Toast.LENGTH_SHORT).show();  
    }  
    @Override  
    public void onCreate(Bundle savedInstanceState) {  
        super.onCreate(savedInstanceState);  
        Toast.makeText(getActivity(), "fragment  
onCreate", Toast.LENGTH_SHORT).show();  
    }  
    @Override  
    public void onCreateView(LayoutInflater inflater,  
        ViewGroup container, Bundle savedInstanceState) {  
        Toast.makeText(getActivity(), "fragment  
onCreateView", Toast.LENGTH_SHORT).show();  
        return inflater.inflate(R.layout.fragment_layout,  
            container, false);  
    }  
    @Override  
    public void onStart() {  
        super.onStart();  
        Toast.makeText(getActivity(), "fragment onStart",  
            Toast.LENGTH_SHORT).show();  
    }
```

~~@Override~~ public void onAttach()

super.onAttach();

Toast.makeText(getApplicationContext(),"Fragment  
onAttach",Toast.LENGTH\_SHORT).show();

3  
@Override

public void onDetach()

super.onDetach();

Toast.makeText(getApplicationContext(),"fragment onDetach",  
Toast.LENGTH\_SHORT).show();

3

@Override

public void onStop()

super.onStop();

Toast.makeText(getApplicationContext(),"fragment onStop",  
Toast.LENGTH\_SHORT).show();

3  
@Override

public void onDestroy()

super.onDestroy();

Toast.makeText(getApplicationContext(),"fragment  
onDestroy",Toast.LENGTH\_SHORT).show();

3  
@Override

public void onDetach()

super.onDetach();

Toast.makeText(getApplicationContext(),"fragment Detach",  
Toast.LENGTH\_SHORT).show();

3

Q) Write a program to demonstrate following UI.

	Enter First Name
	Enter Last Name
	Enter Email ID
	Enter mobile No.
	LOGIN
	REGISTER

activity\_main.xml :-

```
<LinearLayout xmlns: android = "http://schemas.android.com/apk/res/android"  
    android: layout_width = "match-parent"  
    android: layout_height = "match-parent"  
    android: orientation = "vertical"  
    android: padding = "16dp"  
    android: gravity = "center"
```

```
<EditText  
    android: id = "@+id/firstName"  
    android: layout_width = "match-parent"  
    android: layout_height = "wrap-content"  
    android: hint = "Enter Your first Name"  
    android: inputType = "textPersonName"  
    android: padding = "16dp" />
```

### <EditText

```
    android:id="@+id/lastname"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:hint="Enter your last name"
    android:padding="10dp"
    android:inputType="textPersonName" />
```

### <EditText

```
    android:id="@+id/email"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:hint="Enter email id"
    android:inputType="textEmailAddress"
    android:padding="10dp" />
```

### <EditText

```
    android:id="@+id/mobile"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:hint="Enter mobile id"
    android:padding="10dp"
    android:inputType="phone" />
```

### <Button

```
<Button
    android:id="@+id/login-button"
    android:layout_width="match-parent"
    android:layout_height="wrap_content"
    android:text="Login"
    android:padding="10dp" />
```

### <Button>

    android:id="@+id/register\_button"

    android:layout\_height="wrap\_content"

    android:layout\_width="match\_parent"

    android:text="Registration"

    android:padding="10dp"/>

### </LinearLayout>

- Q) Write a program to show list of student by using any adapter like array adapter

### MainActivity.java

```
package com.example.studentlist;
import android.os.Bundle;
import android.app.AppCompatActivity;
import androidx.appcompat.app.AppCompatActivity;
import java.util.ArrayList;
```

```
public class MainActivity extends AppCompatActivity {
```

```
@Override
protected void onCreate(Bundle savedInstanceState) {
```

```
super.onCreate(savedInstanceState);
setContentView(R.layout.activity_main);
```

```
ListView listView = findViewById(R.id.student_listview);
```

```
ArrayList<String> studentList = new ArrayList<>();
```

```
studentList.add("Anuska");
```

```
studentList.add("Krushi");
```

```
studentList.add("Pratibha");
```

```
studentList.add("Bob");
```

```
studentList.add("Anyja");
```

```
</> final ArrayAdapter<String> adapter = new ArrayAdapter<String>(this, R.layout.student_item, R.id.student_name,
```

```
studentList));
```

```
listView.setAdapter(adapter);
```

3

### activity\_main.xml

```
<LinearLayout xmlns:android="http://schemas.android.com/apk  
res/android" android:layout_width="match_parent"  
android:layout_height="match_parent" android:orientation="vertical" android:padding="16dp">
```

### ListView

```
<ListView android:id="@+id/studentlist" android:layout_width="match_parent"  
android:layout_height="match_parent" />
```

```
</LinearLayout>
```

### student\_item.xml

```
<TextView xmlns:android="http://schemas.android.com/apk  
res/android" android:id="@+id/student_name" android:layout_width="match_parent"  
android:layout_height="wrap_content" android:padding="16dp" android:textSize="18sp" android:textColor="@color/black" />
```

- 11) Write a program to demonstrate different dialogs in android

### MainActivity.java

```
package com.example.dialog;
```

```
import android.R;
```

```
import android.app.Activity;
```

```
import java.util.Calendar;
```

```
public class MainActivity extends AppCompatActivity {
```

```
@Override
```

```
protected void onCreate(Bundle savedInstanceState) {
```

```
super.onCreate(savedInstanceState);
```

```
setContentView(R.layout.activity_main);
```

```
Button alertDialogButton = findViewById(R.id.alert_dialog_button);
```

```
alertDialogButton.setOnClickListener(v -> showAlertDialog());
```

```
Button datePickerButton = findViewById(R.id.date_picker_
```

```
button);
```

```
datePickerButton.setOnClickListener(v ->
```

```
showDatePickerDialog());
```

```
Button timePickerButton = findViewById(R.id.time_picker_
```

```
button);
```

```
timePickerButton.setOnClickListener(v ->
```

```
showTimePickerDialog());
```

private void showAlertDialog () {

AlertDialog · Builder builder = new AlertDialog.

Builder (this);

builder. setTitle ("Alert dialog");

builder. setMessage ("This is an example of an  
AlertDialog");

builder. setPositiveButton ("Ok", (dialog, which) →

Toast.makeText (mainActivity . this,  
"Clicked", Toast.LENGTH\_SHORT).show();

builder. setNegativeButton ("cancel", (dialog, which) →

→ dialog.dismiss ());

builder.create (). show ();

private void showDatePickerDialog ()

{

Calendar calendar = Calendar.getInstance ();

int year = calendar.get (Calendar. YEAR);

int month = calendar.get (Calendar. MONTH);

int day = calendar.get (Calendar. DAY\_OF\_MONTH);

int day = calendar.get (Calendar. DAY\_OF\_MONTH);

int day = calendar.get (Calendar. DAY\_OF\_MONTH);

Datepicker Dialog datePickerDialog = new DatePickerDialog

(this, OnDateSetListener, year, monthofYear, dayofMonth) →

Toast.makeText (mainActivity . this, "Selected date: "

dayofMonth + "/" + (monthofYear + 1) + "/" + year).show();

year, month, day)) . show ();

datePickerDialog . show ();

datePickerDialog . show ();

Page No. : \_\_\_\_\_  
Date. : / /

Output 4

+ private void ShowTimePickerDialog () {

- Calendar calendar = calendar.getInstance ();  
int hour = calendar.get (calendar.HOUR\_OF\_DAY);  
int minute = calendar.get (calendar.MINUTES);

- TimePickerDialog timePickerDialog = new TimePickerDialog (

getActivity (), this, hourOfDay, minute) →

700 + makeText (MainActivity.this, "Selected Time is  
hourOfDay + ":" + minute, 0).show ();

timePickerDialog.show ();

3. Clicking on the time picker dialog shows the current time.

4. Clicking on the hour and minute buttons changes the time.

5. Clicking on the done button dismisses the dialog.

Ques. What is the difference between Intent and Context?

Ans. Intent is used to pass data between different applications.

Context is used to access the resources of the application.

Ques. What is the difference between Activity and Application?

Ans. Activity is a component of an application which performs some specific task.

Application is a collection of activities which performs some specific task.

Ques. What is the difference between Intent and Broadcast Receiver?

Ans. Intent is used to pass data between different applications.

Broadcast Receiver is used to receive broadcast messages.

Ques. What is the difference between Activity and Service?

Ans. Activity is a component of an application which performs some specific task.

Service is a component of an application which performs some specific task in background.

Ques. What is the difference between Activity and Content Provider?

Ans. Activity is a component of an application which performs some specific task.

Content Provider is a component of an application which provides data to other components.

Ques. What is the difference between Activity and Fragment?

Ans. Activity is a component of an application which performs some specific task.

Fragment is a component of an application which performs some specific task.

12) Write a program to demonstrate different menus in android

package com.example.farhan;

import android.\*;

import androidx.appcompat.app.AppCompatActivity;

public class MainActivity extends AppCompatActivity {

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

Button popupButton = findViewById(R.id.popup\_button);

popupButton.setOnClickListener(view → showPopupMenu  
(view));

TextView contextMenuText = findViewById(R.id.  
context-menu-text);

registerForContextMenu(contextMenuText);

3

@Override

public boolean onCreateOptionsMenu(Menu menu)

getMenuInflater().inflate(R.menu.menu\_main, menu);

return true;

3 ?

@Override

```
public boolean onOptionsItemSelected(MenuItem item) {
    if (item.getItemId() == R.id.action_settings)
        Toast.makeText(this, "Settings clicked", ).show();
    else if (item.getItemId() == R.id.action_about)
        Toast.makeText(this, "About clicked", ).show();
    return super.onOptionsItemSelected(item);
}
```

```
public void onCreateContextMenu(ContextMenu menu,
                               View v,
                               ContextMenu.ContextMenuInfo menuInfo) {
    menu.add(0, r.getId(), 0, "Edit");
    menu.add(0, v.getId(), 0, "Delete");
}
```

3

@Override

```
public void onContextItemSelected(MenuItem menu,
                                 View v, ContextMenu contextMenu,
                                 ContextMenuItem menuInfo)
```

@Override

```
public boolean onContentItemSelected(MenuItem item) {
    if (item.getTitle().equals("Edit"))
        Toast.makeText(this, "Edit Selected", ).lengthShort()
            .show();
    else if (item.getTitle().equals("Delete"))
        Toast.makeText(this, "Delete Selected", ).show();
    return true;
}
```

private void showPopupMenu(View view) {

popupMenu = new PopupMenu(this, view);  
popupMenu.getMenuInflater().inflate(R.menu.menu\_popup, popupMenu.getMenu());

popupMenu.setOnMenuItemClickListener(item -> {

if (item.getItemId() == R.id.action\_edit)  
Toast.makeText(this, "Edit selected", Toast.LENGTH\_SHORT).show();  
else if (item.getItemId() == R.id.action\_delete)

Toast.makeText(this, "Delete selected", Toast.LENGTH\_SHORT).show();

});

return true;

(3);

popupMenu.show();

3

3. `onCreateOptionsMenu(Menu menu)` method

menu.add(0, 1, 1, "Edit").setOnMenuItemClickListener(new

MenuItem.OnMenuItemClickListener() {

item -> {

if (item.getItemId() == 1) {

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

startActivity(intent);

}});

menu.add(0, 2, 2, "Delete").setOnMenuItemClickListener(new

MenuItem.OnMenuItemClickListener() {

item -> {

if (item.getItemId() == 2) {

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

startActivity(intent);

}});

menu.add(0, 3, 3, "New").setOnMenuItemClickListener(new

MenuItem.OnMenuItemClickListener() {

item -> {

if (item.getItemId() == 3) {

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

startActivity(intent);

Q3) Write a program (WebView) to display this url (<https://imce.mespulse.in/home/>) into a WebView component.

A) Adding internet permission to AndroidManifest.xml

```
<uses-permission android:name="android.permission.INTERNET" />
```

part. MainActivity.java

```
package com.example.webview;
import android.os.Bundle;
import android.app.AppCompatActivity;
public class MainActivity extends AppCompatActivity {
    private WebView webView;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        webView = findViewById(R.id.webView);
        WebSettings webSettings = webView.getSettings();
        webSettings.setJavaScriptEnabled(true);
        webView.setWebViewClient(new WebViewClient());
        webView.loadUrl("https://imce.mespulse.in/home/");
    }
}
```

3

Ques) Write a android app which have 2 fragments in a single activity.

File name: mainActivity.java

package com.example.fragments;

import android.os.Bundle;

import androidx.appcompat.app.AppCompatActivity;

public class MainActivity extends AppCompatActivity {

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

firstFragment firstFragment = new firstFragment();

secondFragment secondFragment = new secondFragment();

fragmentManager fragmentManager =

getSupportFragmentManager();

fragmentTransaction fragmentTransactions

fragmentManager.beginTransaction();

fragmentTransaction.add(R.id.fragment\_container\_1,

firstFragment);

fragmentTransaction.add(R.id.fragment\_container\_2,

secondFragment);

fragmentTransaction.commit();

3

3

### firstfragment.java

```
package com.example.fragment3  
import android.*;  
import androidx.*;  
  
public class firstfragment extends fragment {  
  
    @Override  
    public View onCreateView(LayoutInflater inflater,  
                             ViewGroup container, Bundle  
                             savedInstanceState) {  
        return inflater.inflate(R.layout.fragment_first,  
                             container, false);  
    }  
}
```

### secondfragment.java

```
package com.example.fragment3  
import android.*;  
import androidx.*;  
  
public class secondfragment extends fragment {  
  
    @Override  
    public View onCreateView(LayoutInflater inflater,  
                             ViewGroup container, Bundle  
                             savedInstanceState) {  
        return inflater.inflate(R.layout.fragment_second,  
                             container, false);  
    }  
}
```

14) Create a login page with username, password and login button in flutter

- create a new flutter project

flutter create login-app

- Navigate to the project directory

cd login-app

- Replace the lib/main.dart

```
import 'package:flutter/material.dart';

void main() {
  runApp(MyApp());
}

class MyApp extends StatelessWidget {
  @override
  Widget build(BuildContext context) {
    return MaterialApp(
      title: 'Login Page',
      theme: ThemeData(
        primarySwatch: Colors.blue,
      ),
      home: LoginPage(),
    );
  }
}
```

```
class LoginPage extends StatefulWidget {  
    @override  
    LoginPageState createState() => LoginPageState();  
  
class LoginPageState extends State<LoginPage> {  
    final TextEditingController usernameController =  
        TextEditingController();  
    final TextEditingController passwordController =  
        TextEditingController();  
  
    void login() {  
        String username = usernameController.text;  
        String password = passwordController.text;  
  
        print('Username: $username');  
        print('Password: $password');  
  
    }  
    @override  
    Widget build(BuildContext context) {  
        return Scaffold(  
            appBar: AppBar(  
                title: Text('Login Page'),  
            ),  
            body: Padding(  
                padding: const EdgeInsets.all(16.0),  
                child: Column(  
                    mainAxisAlignment: MainAxisAlignment.center,  
                    children: <Widget>{  
                },  
            ),  
        );  
    }  
}
```

Textfield (

controller: usernameController,

decoration: InputDecoration(

labelText: 'Username',

border: OutlineInputBorder(

),

),

SizedBox (height: 16.0),

Textfield (

controller: passwordController,

obscureText: true,

decoration: InputDecoration(

labelText: 'Password',

border: OutlineInputBorder(

),

),

SizedBox (height: 16.0),

ElevatedButton (

onPressed: login,

child: Text ('Login'),

),

),

),

);

3

5