EXPT 2

<?xml version="1.0" encoding="utf-8"?>  
<LinearLayout xmlns:android="<http://schemas.android.com/apk/res/android>"  
    xmlns:app="<http://schemas.android.com/apk/res-auto>"  
    android:layout\_width="match\_parent"  
    android:layout\_height="match\_parent"  
    android:orientation="vertical"  
    android:padding="16dp"  
    android:background="#FFFFFF">  
  
    <TextView  
        android:id="@+id/textViewTitle"  
        android:layout\_width="wrap\_content"  
        android:layout\_height="wrap\_content"  
        android:text="Home Page"  
        android:textSize="24sp"  
        android:textStyle="bold"  
        android:layout\_gravity="center"  
        android:paddingBottom="16dp"/>  
  
    <GridLayout  
        android:id="@+id/gridLayout"  
        android:layout\_width="match\_parent"  
        android:layout\_height="wrap\_content"  
        android:columnCount="2"  
        android:rowCount="2"  
        android:alignmentMode="alignMargins"  
        android:padding="8dp"  
        android:useDefaultMargins="true">  
  
        <!-- Home Button -->  
        <LinearLayout  
            android:layout\_width="0dp"  
            android:layout\_height="wrap\_content"  
            android:layout\_columnWeight="1"  
            android:layout\_rowWeight="1"  
            android:orientation="vertical"  
            android:gravity="center">  
  
            <ImageButton  
                android:id="@+id/btnHome"  
                android:layout\_width="80dp"  
                android:layout\_height="80dp"  
                android:background="@null"  
                android:src="@drawable/ic\_home"  
                android:contentDescription="Home"/>  
  
            <TextView  
                android:layout\_width="wrap\_content"  
                android:layout\_height="wrap\_content"  
                android:text="Home"  
                android:layout\_marginTop="8dp"/>  
        </LinearLayout>  
  
        <!-- Search Button -->  
        <LinearLayout  
            android:layout\_width="0dp"  
            android:layout\_height="wrap\_content"  
            android:layout\_columnWeight="1"  
            android:layout\_rowWeight="1"  
            android:orientation="vertical"  
            android:gravity="center">  
  
            <ImageButton  
                android:id="@+id/btnSearch"  
                android:layout\_width="80dp"  
                android:layout\_height="80dp"  
                android:background="@null"  
                android:src="@drawable/ic\_search"  
                android:contentDescription="Search"/>  
  
            <TextView  
                android:layout\_width="wrap\_content"  
                android:layout\_height="wrap\_content"  
                android:text="Search"  
                android:layout\_marginTop="8dp"/>  
        </LinearLayout>  
  
        <!-- Settings Button -->  
        <LinearLayout  
            android:layout\_width="0dp"  
            android:layout\_height="wrap\_content"  
            android:layout\_columnWeight="1"  
            android:layout\_rowWeight="1"  
            android:orientation="vertical"  
            android:gravity="center">  
  
            <ImageButton  
                android:id="@+id/btnSettings"  
                android:layout\_width="80dp"  
                android:layout\_height="80dp"  
                android:background="@null"  
                android:src="@drawable/ic\_settings"  
                android:contentDescription="Settings"/>  
  
            <TextView  
                android:layout\_width="wrap\_content"  
                android:layout\_height="wrap\_content"  
                android:text="Settings"  
                android:layout\_marginTop="8dp"/>  
        </LinearLayout>  
  
        <!-- Logout Button -->  
        <LinearLayout  
            android:layout\_width="0dp"  
            android:layout\_height="wrap\_content"  
            android:layout\_columnWeight="1"  
            android:layout\_rowWeight="1"  
            android:orientation="vertical"  
            android:gravity="center">  
  
            <ImageButton  
                android:id="@+id/btnLogout"  
                android:layout\_width="80dp"  
                android:layout\_height="80dp"  
                android:background="@null"  
                android:src="@drawable/ic\_logout"  
                android:contentDescription="Logout"/>  
  
            <TextView  
                android:layout\_width="wrap\_content"  
                android:layout\_height="wrap\_content"  
                android:text="Logout"  
                android:layout\_marginTop="8dp"/>  
        </LinearLayout>  
  
    </GridLayout>  
</LinearLayout>  
  
**MainActivity.java**package com.example.exp2;  
  
import android.os.Bundle;  
import android.widget.Toast;  
import androidx.appcompat.app.AppCompatActivity;  
import android.view.View;  
import android.widget.ImageButton;  
  
public class MainActivity extends AppCompatActivity {  
    ImageButton btnHome, btnSearch, btnSettings, btnLogout;  
  
    @Override  
    protected void onCreate(Bundle savedInstanceState) {  
        super.onCreate(savedInstanceState);  
        setContentView(R.layout.activity\_main);  
  
        btnHome = findViewById(R.id.btnHome);  
        btnSearch = findViewById(R.id.btnSearch);  
        btnSettings = findViewById(R.id.btnSettings);  
        btnLogout = findViewById(R.id.btnLogout);  
  
        btnHome.setOnClickListener(v -> showToast("Home clicked"));  
        btnSearch.setOnClickListener(v -> showToast("Search clicked"));  
        btnSettings.setOnClickListener(v -> showToast("Settings clicked"));  
        btnLogout.setOnClickListener(v -> showToast("Logout clicked"));  
    }  
  
    private void showToast(String message) {  
        Toast.makeText(this, message, Toast.LENGTH\_SHORT).show();  
    }  
}

EXPT 3

<?xml version="1.0" encoding="utf-8"?>  
<LinearLayout xmlns:android="<http://schemas.android.com/apk/res/android>"  
    android:orientation="vertical"  
    android:padding="24dp"  
    android:layout\_width="match\_parent"  
    android:layout\_height="match\_parent">  
  
    <EditText  
        android:id="@+id/etUsername"  
        android:layout\_width="match\_parent"  
        android:layout\_height="wrap\_content"  
        android:minHeight="48dp"  
        android:padding="12dp"  
    android:hint="Username" />  
  
    <EditText  
        android:id="@+id/etPassword"  
        android:layout\_width="match\_parent"  
        android:layout\_height="wrap\_content"  
        android:minHeight="48dp"  
        android:hint="Password"  
        android:inputType="textPassword" />  
  
    <Button  
        android:id="@+id/btnLogin"  
        android:layout\_width="match\_parent"  
        android:layout\_height="wrap\_content"  
        android:text="Login"  
        android:layout\_marginTop="16dp" />  
  
    <Button  
        android:id="@+id/btnRegister"  
        android:layout\_width="match\_parent"  
        android:layout\_height="wrap\_content"  
        android:text="Register" />  
</LinearLayout>  
  
  
**MainActivity.java**

package com.example.exp3;  
  
import android.content.ContentValues;  
import android.database.Cursor;  
import android.database.sqlite.SQLiteDatabase;  
import android.os.Bundle;  
import android.widget.\*;  
import androidx.appcompat.app.AppCompatActivity;  
  
public class MainActivity extends AppCompatActivity {  
    EditText etUsername, etPassword;  
    Button btnLogin, btnRegister;  
    SQLiteDatabase db;  
  
    @Override  
    protected void onCreate(Bundle savedInstanceState) {  
        super.onCreate(savedInstanceState);  
        setContentView(R.layout.activity\_main);  
  
        etUsername = findViewById(R.id.etUsername);  
        etPassword = findViewById(R.id.etPassword);  
        btnLogin = findViewById(R.id.btnLogin);  
        btnRegister = findViewById(R.id.btnRegister);  
  
        db = openOrCreateDatabase("UserDB", MODE\_PRIVATE, null);  
        db.execSQL("CREATE TABLE IF NOT EXISTS users(username TEXT, password TEXT)");  
  
        btnRegister.setOnClickListener(v -> {  
            String user = etUsername.getText().toString();  
            String pass = etPassword.getText().toString();  
            ContentValues cv = new ContentValues();  
            cv.put("username", user);  
            cv.put("password", pass);  
            db.insert("users", null, cv);  
            Toast.makeText(this, "Registered Successfully", Toast.LENGTH\_SHORT).show();  
        });  
  
        btnLogin.setOnClickListener(v -> {  
            String user = etUsername.getText().toString();  
            String pass = etPassword.getText().toString();  
            Cursor cursor = db.rawQuery("SELECT \* FROM users WHERE username=? AND password=?", new String[]{user, pass});  
            if (cursor.moveToFirst()) {  
                Toast.makeText(this, "Login Successful", Toast.LENGTH\_SHORT).show();  
            } else {  
                Toast.makeText(this, "Login Failed", Toast.LENGTH\_SHORT).show();  
            }  
        });  
    }  
}

EXPT 4

Activity\_main.xml

<?xml version="1.0" encoding="utf-8"?>  
<ScrollView xmlns:android="<http://schemas.android.com/apk/res/android>"  
    android:layout\_width="match\_parent"  
    android:layout\_height="match\_parent"  
    android:padding="20dp">  
  
    <LinearLayout  
        android:orientation="vertical"  
        android:layout\_width="match\_parent"  
        android:layout\_height="wrap\_content">  
  
        <EditText  
            android:id="@+id/etName"  
            android:layout\_width="match\_parent"  
            android:layout\_height="wrap\_content"  
            android:minHeight="48dp"  
            android:padding="12dp"  
            android:hint="Enter Name"  
            android:textSize="16sp" />  
  
  
        <Spinner  
            android:id="@+id/spinnerSubject"  
            android:layout\_width="match\_parent"  
            android:layout\_height="wrap\_content"  
            android:minHeight="48dp"  
            android:padding="12dp"  
            android:layout\_marginTop="16dp"  
            android:textAlignment="center" />  
  
  
        <RadioGroup  
            android:id="@+id/radioGender"  
            android:layout\_width="match\_parent"  
            android:layout\_height="wrap\_content"  
            android:orientation="horizontal"  
            android:layout\_marginTop="16dp">  
            <RadioButton  
                android:id="@+id/radioMale"  
                android:layout\_width="wrap\_content"  
                android:layout\_height="wrap\_content"  
                android:text="Male" />  
            <RadioButton  
                android:id="@+id/radioFemale"  
                android:layout\_width="wrap\_content"  
                android:layout\_height="wrap\_content"  
                android:text="Female" />  
        </RadioGroup>  
  
        <TextView  
            android:layout\_width="wrap\_content"  
            android:layout\_height="wrap\_content"  
            android:text="Qualification"  
            android:layout\_marginTop="16dp"/>  
  
        <CheckBox  
            android:id="@+id/chk10th"  
            android:layout\_width="wrap\_content"  
            android:layout\_height="wrap\_content"  
            android:text="10th" />  
  
        <CheckBox  
            android:id="@+id/chk12th"  
            android:layout\_width="wrap\_content"  
            android:layout\_height="wrap\_content"  
            android:text="12th" />  
  
        <CheckBox  
            android:id="@+id/chkGrad"  
            android:layout\_width="wrap\_content"  
            android:layout\_height="wrap\_content"  
            android:text="Graduation" />  
  
        <Button  
            android:id="@+id/btnSubmit"  
            android:layout\_width="match\_parent"  
            android:layout\_height="wrap\_content"  
            android:text="Submit"  
            android:layout\_marginTop="20dp" />  
    </LinearLayout>  
</ScrollView>  
  
**MainActivity.java**package com.example.exp4;  
  
import android.content.Intent;  
import android.os.Bundle;  
import android.view.View;  
import android.widget.\*;  
import androidx.appcompat.app.AppCompatActivity;  
  
public class MainActivity extends AppCompatActivity {  
    EditText etName;  
    Spinner spinner;  
    RadioGroup radioGroup;  
    CheckBox chk10th, chk12th, chkGrad;  
    Button btnSubmit;  
  
    String[] subjects = {"Math", "Science", "English", "Computer"};  
  
    @Override  
    protected void onCreate(Bundle savedInstanceState) {  
        super.onCreate(savedInstanceState);  
        setContentView(R.layout.activity\_main);  
  
        etName = findViewById(R.id.etName);  
        spinner = findViewById(R.id.spinnerSubject);  
        radioGroup = findViewById(R.id.radioGender);  
        chk10th = findViewById(R.id.chk10th);  
        chk12th = findViewById(R.id.chk12th);  
        chkGrad = findViewById(R.id.chkGrad);  
        btnSubmit = findViewById(R.id.btnSubmit);  
  
        // Set up spinner  
        ArrayAdapter<String> adapter = new ArrayAdapter<>(this, android.R.layout.simple\_spinner\_item, subjects);  
        adapter.setDropDownViewResource(android.R.layout.simple\_spinner\_dropdown\_item);  
        spinner.setAdapter(adapter);  
  
        btnSubmit.setOnClickListener(view -> {  
            String name = etName.getText().toString();  
            String subject = spinner.getSelectedItem().toString();  
  
            int selectedId = radioGroup.getCheckedRadioButtonId();  
            RadioButton selectedGender = findViewById(selectedId);  
            String gender = selectedGender != null ? selectedGender.getText().toString() : "Not selected";  
  
            StringBuilder qualification = new StringBuilder();  
            if (chk10th.isChecked()) qualification.append("10th ");  
            if (chk12th.isChecked()) qualification.append("12th ");  
            if (chkGrad.isChecked()) qualification.append("Graduation");  
  
            // Pass data to ShowActivity  
            Intent intent = new Intent(MainActivity.this, ShowActivity.class);  
            intent.putExtra("name", name);  
            intent.putExtra("subject", subject);  
            intent.putExtra("gender", gender);  
            intent.putExtra("qualification", qualification.toString().trim());  
            startActivity(intent);  
        });  
    }  
}  
  
**activity\_show.xml**<?xml version="1.0" encoding="utf-8"?>  
<LinearLayout xmlns:android="<http://schemas.android.com/apk/res/android>"  
    android:orientation="vertical"  
    android:padding="20dp"  
    android:layout\_width="match\_parent"  
    android:layout\_height="match\_parent">  
  
    <TextView  
        android:id="@+id/tvResult"  
        android:layout\_width="match\_parent"  
        android:layout\_height="wrap\_content"  
        android:text="Results will be displayed here"  
        android:textSize="18sp"  
        android:padding="16dp" />  
  
</LinearLayout>  
  
**ShowActivity.java**  
package com.example.exp4;  
  
import android.os.Bundle;  
import android.widget.TextView;  
import androidx.appcompat.app.AppCompatActivity;  
  
public class ShowActivity extends AppCompatActivity {  
    TextView tvResult;  
  
    @Override  
    protected void onCreate(Bundle savedInstanceState) {  
        super.onCreate(savedInstanceState);  
        setContentView(R.layout.activity\_show);  
  
        tvResult = findViewById(R.id.tvResult);  
  
        String name = getIntent().getStringExtra("name");  
        String subject = getIntent().getStringExtra("subject");  
        String gender = getIntent().getStringExtra("gender");  
        String qualification = getIntent().getStringExtra("qualification");  
  
        String result = "Name: " + name + "\n"  
                + "Subject: " + subject + "\n"  
                + "Gender: " + gender + "\n"  
                + "Qualification: " + qualification;  
  
        tvResult.setText(result);  
    }  
}

EXPT 5

<?xml version="1.0" encoding="utf-8"?>  
<LinearLayout xmlns:android="<http://schemas.android.com/apk/res/android>"  
    android:id="@+id/mainLayout"  
    android:layout\_width="match\_parent"  
    android:layout\_height="match\_parent"  
    android:orientation="vertical"  
    android:padding="20dp">  
  
    <Button  
        android:id="@+id/btnDialog"  
        android:layout\_width="match\_parent"  
        android:layout\_height="wrap\_content"  
        android:text="Show Alert Dialog" />  
  
    <Button  
        android:id="@+id/btnPopup"  
        android:layout\_width="match\_parent"  
        android:layout\_height="wrap\_content"  
        android:text="Show Popup Menu"  
        android:layout\_marginTop="16dp" />  
  
    <TextView  
        android:id="@+id/tvContext"  
        android:layout\_width="match\_parent"  
        android:layout\_height="wrap\_content"  
        android:text="Long Press Me for Context Menu"  
        android:textSize="18sp"  
        android:padding="20dp"  
        android:background="#DDDDDD"  
        android:layout\_marginTop="16dp" />  
</LinearLayout>  
  
  
**MainActivity.java**package com.example.expt5;  
  
import android.os.Bundle;  
import android.view.ContextMenu;  
import android.view.Menu;  
import android.view.MenuInflater;  
import android.view.MenuItem;  
import android.view.View;  
import android.widget.Button;  
import android.widget.PopupMenu;  
import android.widget.TextView;  
import android.widget.Toast;  
import androidx.appcompat.app.AlertDialog;  
import androidx.appcompat.app.AppCompatActivity;  
  
public class MainActivity extends AppCompatActivity {  
  
    Button btnDialog, btnPopup;  
    TextView tvContext;  
  
    @Override  
    protected void onCreate(Bundle savedInstanceState) {  
        super.onCreate(savedInstanceState);  
        setContentView(R.layout.activity\_main);  
  
        btnDialog = findViewById(R.id.btnDialog);  
        btnPopup = findViewById(R.id.btnPopup);  
        tvContext = findViewById(R.id.tvContext);  
  
        // Alert Dialog  
        btnDialog.setOnClickListener(v -> {  
            new AlertDialog.Builder(MainActivity.this)  
                    .setTitle("Alert Dialog")  
                    .setMessage("Do you want to continue?")  
                    .setPositiveButton("Yes", (dialog, which) ->  
                            Toast.makeText(MainActivity.this, "Yes clicked", Toast.LENGTH\_SHORT).show())  
                    .setNegativeButton("No", (dialog, which) ->  
                            Toast.makeText(MainActivity.this, "No clicked", Toast.LENGTH\_SHORT).show())  
                    .show();  
        });  
  
        // Popup Menu  
        btnPopup.setOnClickListener(v -> {  
            PopupMenu popupMenu = new PopupMenu(MainActivity.this, btnPopup);  
            popupMenu.getMenuInflater().inflate(R.menu.popup\_menu, popupMenu.getMenu());  
            popupMenu.setOnMenuItemClickListener(item -> {  
                Toast.makeText(MainActivity.this, item.getTitle() + " selected", Toast.LENGTH\_SHORT).show();  
                return true;  
            });  
            popupMenu.show();  
        });  
  
        // Context Menu  
        registerForContextMenu(tvContext);  
    }  
  
    // Context Menu creation  
    @Override  
    public void onCreateContextMenu(ContextMenu menu, View v, ContextMenu.ContextMenuInfo menuInfo) {  
        super.onCreateContextMenu(menu, v, menuInfo);  
        MenuInflater inflater = getMenuInflater();  
        inflater.inflate(R.menu.context\_menu, menu);  
    }  
  
    // Context Menu selection  
    @Override  
    public boolean onContextItemSelected(MenuItem item) {  
        Toast.makeText(this, item.getTitle() + " selected from context menu", Toast.LENGTH\_SHORT).show();  
        return true;  
    }  
  
    // Options Menu  
    @Override  
    public boolean onCreateOptionsMenu(Menu menu) {  
        getMenuInflater().inflate(R.menu.options\_menu, menu);  
        return true;  
    }  
  
    @Override  
    public boolean onOptionsItemSelected(MenuItem item) {  
        Toast.makeText(this, item.getTitle() + " selected from options menu", Toast.LENGTH\_SHORT).show();  
        return true;  
    }  
}  
  
  
**res->right click->new->android resource directory->name = menu value=menu->create 3 xml files :  
  
popup\_menu.xml**

<menu xmlns:android="<http://schemas.android.com/apk/res/android>">  
    <item android:id="@+id/popup\_1" android:title="Popup Item 1"/>  
    <item android:id="@+id/popup\_2" android:title="Popup Item 2"/>  
</menu>

**context\_menu.xml**

<menu xmlns:android="<http://schemas.android.com/apk/res/android>">  
    <item android:id="@+id/context\_1" android:title="Context Item 1"/>  
    <item android:id="@+id/context\_2" android:title="Context Item 2"/>  
</menu>

**options\_menu.xml**

<menu xmlns:android="<http://schemas.android.com/apk/res/android>">  
    <item android:id="@+id/option\_1" android:title="Option Item 1"/>  
    <item android:id="@+id/option\_2" android:title="Option Item 2"/>  
</menu>

EXPT 6

<?xml version="1.0" encoding="utf-8"?>  
<RelativeLayout xmlns:android="<http://schemas.android.com/apk/res/android>"  
    xmlns:tools="<http://schemas.android.com/tools>"  
    android:id="@+id/activity\_main"  
    android:layout\_width="match\_parent"  
    android:layout\_height="match\_parent"  
    tools:context=".MainActivity">  
  
    <WebView  
        android:id="@+id/webView"  
        android:layout\_width="match\_parent"  
        android:layout\_height="match\_parent" />  
  
</RelativeLayout>  
  
  
**MainActivity.java**package com.example.expt6; // 🔁 Change this if your package name is different  
  
import android.os.Bundle;  
import android.webkit.WebSettings;  
import android.webkit.WebView;  
import android.webkit.WebViewClient;  
import androidx.appcompat.app.AppCompatActivity;  
  
public class MainActivity extends AppCompatActivity {  
    private WebView myWebView;  
  
    @Override  
    protected void onCreate(Bundle savedInstanceState) {  
        super.onCreate(savedInstanceState);  
        setContentView(R.layout.activity\_main);  
  
        myWebView = findViewById(R.id.webView);  
        myWebView.setWebViewClient(new WebViewClient());  
  
        WebSettings webSettings = myWebView.getSettings();  
        webSettings.setJavaScriptEnabled(true);  
  
        myWebView.loadUrl("[https://www.youtube.com](https://www.youtube.com/)");  
    }  
  
    @Override  
    public void onBackPressed() {  
        if (myWebView.canGoBack()) {  
            myWebView.goBack();  
        } else {  
            super.onBackPressed();  
        }  
    }  
}  
  
  
**AndroidManifest->AndoidManifest.xml include below line above application tag**

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

EXPT 7

<?xml version="1.0" encoding="utf-8"?>  
<androidx.constraintlayout.widget.ConstraintLayout  
    xmlns:android="<http://schemas.android.com/apk/res/android>"  
    xmlns:app="<http://schemas.android.com/apk/res-auto>"  
    android:layout\_width="match\_parent"  
    android:layout\_height="match\_parent">  
  
    <androidx.viewpager2.widget.ViewPager2  
        android:id="@+id/viewPager"  
        android:layout\_width="0dp"  
        android:layout\_height="0dp"  
        app:layout\_constraintTop\_toTopOf="parent"  
        app:layout\_constraintBottom\_toBottomOf="parent"  
        app:layout\_constraintStart\_toStartOf="parent"  
        app:layout\_constraintEnd\_toEndOf="parent"/>  
  
</androidx.constraintlayout.widget.ConstraintLayout>

**slider\_item.xml**

<?xml version="1.0" encoding="utf-8"?>  
<FrameLayout xmlns:android="<http://schemas.android.com/apk/res/android>"  
    android:layout\_width="match\_parent"  
    android:layout\_height="match\_parent">  
  
    <ImageView  
        android:id="@+id/imageView"  
        android:layout\_width="match\_parent"  
        android:layout\_height="match\_parent"  
        android:scaleType="centerCrop" />  
</FrameLayout>

**ImageAdapter.java**

package com.example.exp7;  
  
import android.view.LayoutInflater;  
import android.view.View;  
import android.view.ViewGroup;  
import android.widget.ImageView;  
import androidx.annotation.NonNull;  
import androidx.recyclerview.widget.RecyclerView;  
import java.util.List;  
  
public class ImageAdapter extends RecyclerView.Adapter<ImageAdapter.ImageViewHolder> {  
    private final List<Integer> images;  
  
    public ImageAdapter(List<Integer> images) {  
        this.images = images;  
    }  
  
    @NonNull  
    @Override  
    public ImageViewHolder onCreateViewHolder(@NonNull ViewGroup parent, int viewType) {  
        View view = LayoutInflater.from(parent.getContext())  
                .inflate(R.layout.slider\_item, parent, false);  
        return new ImageViewHolder(view);  
    }  
  
    @Override  
    public void onBindViewHolder(@NonNull ImageViewHolder holder, int position) {  
        holder.imageView.setImageResource(images.get(position));  
    }  
  
    @Override  
    public int getItemCount() {  
        return images.size();  
    }  
  
    public static class ImageViewHolder extends RecyclerView.ViewHolder {  
        ImageView imageView;  
  
        public ImageViewHolder(@NonNull View itemView) {  
            super(itemView);  
            imageView = itemView.findViewById(R.id.imageView);  
        }  
    }  
}

**MainActivity.java**

package com.example.exp7;  
  
import android.os.Bundle;  
import androidx.appcompat.app.AppCompatActivity;  
import androidx.viewpager2.widget.ViewPager2;  
import java.util.ArrayList;  
import java.util.List;  
  
public class MainActivity extends AppCompatActivity {  
    private ViewPager2 viewPager2;  
  
    @Override  
    protected void onCreate(Bundle savedInstanceState) {  
        super.onCreate(savedInstanceState);  
        setContentView(R.layout.activity\_main);  
  
        viewPager2 = findViewById(R.id.viewPager);  
  
        // Add image resource IDs  
        List<Integer> imageList = new ArrayList<>();  
        imageList.add(R.drawable.image1);  
        imageList.add(R.drawable.image2);  
        imageList.add(R.drawable.image3);  
  
        // Set adapter  
        viewPager2.setAdapter(new ImageAdapter(imageList));  
    }  
}

**To add the images:**

**project->app->src->main->res->drawable->paste all the images with proper names as their in code**

EXPT 8

<?xml version="1.0" encoding="utf-8"?>  
<LinearLayout xmlns:android="<http://schemas.android.com/apk/res/android>"  
    android:layout\_width="match\_parent"  
    android:layout\_height="match\_parent"  
    android:orientation="vertical"  
    android:gravity="center"  
    android:padding="16dp">  
  
    <Button  
        android:id="@+id/playButton"  
        android:layout\_width="wrap\_content"  
        android:layout\_height="wrap\_content"  
        android:text="Play" />  
  
    <Button  
        android:id="@+id/pauseButton"  
        android:layout\_width="wrap\_content"  
        android:layout\_height="wrap\_content"  
        android:text="Pause"  
        android:layout\_marginTop="10dp"/>  
  
    <Button  
        android:id="@+id/stopButton"  
        android:layout\_width="wrap\_content"  
        android:layout\_height="wrap\_content"  
        android:text="Stop"  
        android:layout\_marginTop="10dp"/>  
</LinearLayout>  
  
  
  
**MainActivity.java**

package com.example.expt8;  
  
import android.media.MediaPlayer;  
import android.os.Bundle;  
import android.widget.Button;  
import androidx.appcompat.app.AppCompatActivity;  
  
public class MainActivity extends AppCompatActivity {  
  
    private MediaPlayer mediaPlayer;  
  
    @Override  
    protected void onCreate(Bundle savedInstanceState) {  
        super.onCreate(savedInstanceState);  
        setContentView(R.layout.activity\_main);  
  
        Button playButton = findViewById(R.id.playButton);  
        Button pauseButton = findViewById(R.id.pauseButton);  
        Button stopButton = findViewById(R.id.stopButton);  
  
        // Initialize MediaPlayer with the audio file from res/raw  
        mediaPlayer = MediaPlayer.create(this, R.raw.chalo\_chale\_flute);  
  
        playButton.setOnClickListener(v -> {  
            if (!mediaPlayer.isPlaying()) {  
                mediaPlayer.start();  
            }  
        });  
  
        pauseButton.setOnClickListener(v -> {  
            if (mediaPlayer.isPlaying()) {  
                mediaPlayer.pause();  
            }  
        });  
  
        stopButton.setOnClickListener(v -> {  
            if (mediaPlayer != null) {  
                mediaPlayer.stop();  
                mediaPlayer.release();  
                mediaPlayer = MediaPlayer.create(this, R.raw.chalo\_chale\_flute); // Re-initialize  
            }  
        });  
    }  
  
    @Override  
    protected void onDestroy() {  
        if (mediaPlayer != null) {  
            mediaPlayer.release();  
        }  
        super.onDestroy();  
    }  
}  
  
**res->new->resource directory->name=raw and value=raw->paste audio->also change name in code**

EXPT 9

<?xml version="1.0" encoding="utf-8"?>  
<LinearLayout xmlns:android="<http://schemas.android.com/apk/res/android>"  
    android:layout\_width="match\_parent"  
    android:layout\_height="match\_parent"  
    android:orientation="vertical"  
    android:padding="16dp">  
  
    <EditText  
        android:id="@+id/editTextText"  
        android:layout\_width="match\_parent"  
        android:layout\_height="wrap\_content"  
        android:hint="Enter Text" />  
  
    <Button  
        android:onClick="saveToInternal"  
        android:layout\_width="match\_parent"  
        android:layout\_height="wrap\_content"  
        android:text="Save to Internal Storage" />  
  
    <Button  
        android:onClick="loadFromInternal"  
        android:layout\_width="match\_parent"  
        android:layout\_height="wrap\_content"  
        android:text="Load from Internal Storage" />  
  
    <Button  
        android:onClick="saveToExternal"  
        android:layout\_width="match\_parent"  
        android:layout\_height="wrap\_content"  
        android:text="Save to External Storage" />  
  
    <Button  
        android:onClick="loadFromExternal"  
        android:layout\_width="match\_parent"  
        android:layout\_height="wrap\_content"  
        android:text="Load from External Storage" />  
</LinearLayout>  
  
**MainActivity.java**  
package com.example.exp9;  
  
import androidx.appcompat.app.AppCompatActivity;  
import android.os.Bundle;  
import android.view.View;  
import android.widget.EditText;  
import android.widget.Toast;  
import java.io.FileOutputStream;  
import java.io.FileInputStream;  
import java.io.File;  
import android.os.Environment;  
  
public class MainActivity extends AppCompatActivity {  
    EditText editText;  
    String internalFileName = "myfile.txt";  
    String externalFileName = "externalfile.txt";  
  
    @Override  
    protected void onCreate(Bundle savedInstanceState) {  
        super.onCreate(savedInstanceState);  
        setContentView(R.layout.activity\_main);  
        editText = findViewById(R.id.editTextText);  
    }  
  
    // Save to internal storage  
    public void saveToInternal(View view) {  
        try {  
            FileOutputStream fos = openFileOutput(internalFileName, MODE\_PRIVATE);  
            fos.write(editText.getText().toString().getBytes());  
            fos.close();  
            Toast.makeText(this, "Saved to Internal Storage", Toast.LENGTH\_SHORT).show();  
        } catch (Exception e) {  
            e.printStackTrace();  
        }  
    }  
  
    // Load from internal storage  
    public void loadFromInternal(View view) {  
        try {  
            FileInputStream fis = openFileInput(internalFileName);  
            int c;  
            StringBuilder temp = new StringBuilder();  
            while ((c = fis.read()) != -1) {  
                temp.append((char) c);  
            }  
            fis.close();  
            editText.setText(temp.toString());  
            Toast.makeText(this, "Loaded from Internal Storage", Toast.LENGTH\_SHORT).show();  
        } catch (Exception e) {  
            e.printStackTrace();  
        }  
    }  
  
    // Save to external storage  
    public void saveToExternal(View view) {  
        if (isExternalStorageWritable()) {  
            File file = new File(getExternalFilesDir(null), externalFileName);  
            try {  
                FileOutputStream fos = new FileOutputStream(file);  
                fos.write(editText.getText().toString().getBytes());  
                fos.close();  
                Toast.makeText(this, "Saved to External Storage", Toast.LENGTH\_SHORT).show();  
            } catch (Exception e) {  
                e.printStackTrace();  
            }  
        }  
    }  
  
    // Load from external storage  
    public void loadFromExternal(View view) {  
        File file = new File(getExternalFilesDir(null), externalFileName);  
        try {  
            FileInputStream fis = new FileInputStream(file);  
            int c;  
            StringBuilder temp = new StringBuilder();  
            while ((c = fis.read()) != -1) {  
                temp.append((char) c);  
            }  
            fis.close();  
            editText.setText(temp.toString());  
            Toast.makeText(this, "Loaded from External Storage", Toast.LENGTH\_SHORT).show();  
        } catch (Exception e) {  
            e.printStackTrace();  
        }  
    }  
  
    // Check if external storage is writable  
    private boolean isExternalStorageWritable() {  
        return Environment.getExternalStorageState().equals(Environment.MEDIA\_MOUNTED);  
    }  
}  
  
**AndroidManifest.xml**<uses-permission android:name="android.permission.WRITE\_EXTERNAL\_STORAGE" android:maxSdkVersion="28"/>  
    <uses-permission android:name="android.permission.READ\_EXTERNAL\_STORAGE" android:maxSdkVersion="28"/>