--------------------------------manifest file---------------------------------------------------------------

<?xml version="1.0" encoding="utf-8"?>  
<manifest xmlns:android="http://schemas.android.com/apk/res/android"  
 xmlns:tools="http://schemas.android.com/tools">  
  
 <application  
 android:allowBackup="true"  
 android:dataExtractionRules="@xml/data\_extraction\_rules"  
 android:fullBackupContent="@xml/backup\_rules"  
 android:icon="@mipmap/ic\_launcher"  
 android:label="@string/app\_name"  
 android:roundIcon="@mipmap/ic\_launcher\_round"  
 android:supportsRtl="true"  
 android:theme="@style/Theme.MyApplication"  
 tools:targetApi="31"  
 android:requestLegacyExternalStorage="true">  
  
 <activity  
 android:name=".MainActivity"  
  
 android:exported="true">  
 <intent-filter>  
 <action android:name="android.intent.action.MAIN" />  
  
 <category android:name="android.intent.category.LAUNCHER" />  
 </intent-filter>  
 </activity>  
 </application>  
</manifest>

------------------------------------alert box--------------------------------------------------------------------------

<?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:gravity="center"  
 android:orientation="vertical"  
 android:padding="20dp">  
  
 <Button  
 android:id="@+id/btn\_show\_dialog"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Show Alert Dialog" />  
  
</LinearLayout>

JAVA:

package com.example.myapplication; // Change to your actual package name  
  
import android.app.AlertDialog;  
import android.content.DialogInterface;  
import android.os.Bundle;  
import android.widget.Toast;  
import androidx.appcompat.app.AppCompatActivity;  
  
public class MainActivity extends AppCompatActivity {  
  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
  
 // Directly show the alert dialog on app start  
 showAlertDialog();  
 }  
  
 private void showAlertDialog() {  
 AlertDialog.Builder builder = new AlertDialog.Builder(this);  
 builder.setTitle("Alert Dialog")  
 .setMessage("Are you sure you want to proceed?")  
 .setPositiveButton("Yes", new DialogInterface.OnClickListener() {  
 @Override  
 public void onClick(DialogInterface dialog, int which) {  
 Toast.*makeText*(MainActivity.this, "You clicked Yes!", Toast.*LENGTH\_SHORT*).show();  
 }  
 })  
 .setNegativeButton("No", new DialogInterface.OnClickListener() {  
 @Override  
 public void onClick(DialogInterface dialog, int which) {  
 Toast.*makeText*(MainActivity.this, "You clicked No!", Toast.*LENGTH\_SHORT*).show();  
 }  
 })  
 .setNeutralButton("Cancel", new DialogInterface.OnClickListener() {  
 @Override  
 public void onClick(DialogInterface dialog, int which) {  
 dialog.dismiss();  
 }  
 })  
 .show();  
 }  
}

-------------------------------------------login page------------------------------------------------------------------

<?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="20dp"  
 android:background="@color/teal\_700">  
  
 <!-- Email Input -->  
 <EditText  
 android:id="@+id/editTextEmail"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:hint="Email"  
 android:background="@android:color/white"  
 android:padding="10dp"  
 android:textColor="@android:color/black"  
 android:inputType="textEmailAddress"  
 android:layout\_marginBottom="10dp"/>  
  
 <!-- Password Input -->  
 <EditText  
 android:id="@+id/editTextPassword"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:hint="Password"  
 android:background="@android:color/white"  
 android:padding="10dp"  
 android:textColor="@android:color/black"  
 android:inputType="textPassword"  
 android:layout\_marginBottom="20dp"/>  
  
 <!-- Login Button -->  
 <Button  
 android:id="@+id/buttonLogin"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:text="LOGIN"  
 android:background="@android:color/white"  
 android:textColor="@android:color/darker\_gray"  
 android:padding="10dp"/>  
  
 <!-- Signup Text -->  
 <TextView  
 android:id="@+id/textViewSignup"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Not a member? Sign up now."  
 android:textColor="@android:color/white"  
 android:textSize="14sp"  
 android:layout\_marginTop="20dp"/>  
  
</LinearLayout>

Res/values:

<color name="teal\_700">#4DB6AC</color>

JAVA:

package com.example.myapplication;  
  
import android.os.Bundle;  
import android.view.View;  
import android.widget.Button;  
import android.widget.EditText;  
import android.widget.TextView;  
import android.widget.Toast;  
import androidx.appcompat.app.AppCompatActivity;  
  
public class MainActivity extends AppCompatActivity {  
  
 private EditText editTextEmail, editTextPassword;  
 private Button buttonLogin;  
 private TextView textViewSignup;  
  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_main*);  
  
 // Initialize UI elements  
 editTextEmail = findViewById(R.id.*editTextEmail*);  
 editTextPassword = findViewById(R.id.*editTextPassword*);  
 buttonLogin = findViewById(R.id.*buttonLogin*);  
 textViewSignup = findViewById(R.id.*textViewSignup*);  
  
 // Set button click listener  
 buttonLogin.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View v) {  
 validateLogin();  
 }  
 });  
  
 // Set signup text click listener  
 textViewSignup.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View v) {  
 Toast.*makeText*(MainActivity.this, "Sign-up clicked!", Toast.*LENGTH\_SHORT*).show();  
 }  
 });  
 }  
  
 private void validateLogin() {  
 String email = editTextEmail.getText().toString().trim();  
 String password = editTextPassword.getText().toString().trim();  
  
 if (email.isEmpty()) {  
 editTextEmail.setError("Email is required");  
 return;  
 }  
  
 if (!android.util.Patterns.*EMAIL\_ADDRESS*.matcher(email).matches()) {  
 editTextEmail.setError("Enter a valid email");  
 return;  
 }  
  
 if (password.isEmpty()) {  
 editTextPassword.setError("Password is required");  
 return;  
 }  
  
 if (password.length() < 6) {  
 editTextPassword.setError("Password must be at least 6 characters");  
 return;  
 }  
  
 Toast.*makeText*(this, "Login Successful!", Toast.*LENGTH\_SHORT*).show();  
 }  
}

----------------------------------------------calculator------------------------------------------------------

<?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="20dp">  
  
 <!-- Display Screen -->  
 <EditText  
 android:id="@+id/editText"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:inputType="none"  
 android:focusable="false"  
 android:textSize="20sp"  
 android:gravity="right"  
 android:background="@android:color/white"/>  
  
 <!-- Number & Operation Buttons -->  
 <GridLayout  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:columnCount="4"  
 android:rowCount="5"  
 android:layout\_marginTop="10dp">  
  
 <!-- Number Buttons -->  
 <Button android:id="@+id/btn1" android:text="1"/>  
 <Button android:id="@+id/btn2" android:text="2"/>  
 <Button android:id="@+id/btn3" android:text="3"/>  
 <Button android:id="@+id/btnAdd" android:text="+" />  
  
 <Button android:id="@+id/btn4" android:text="4"/>  
 <Button android:id="@+id/btn5" android:text="5"/>  
 <Button android:id="@+id/btn6" android:text="6"/>  
 <Button android:id="@+id/btnSubtract" android:text="-" />  
  
 <Button android:id="@+id/btn7" android:text="7"/>  
 <Button android:id="@+id/btn8" android:text="8"/>  
 <Button android:id="@+id/btn9" android:text="9"/>  
 <Button android:id="@+id/btnMultiply" android:text="×"/>  
  
 <Button android:id="@+id/btnDot" android:text="."/>  
 <Button android:id="@+id/btn0" android:text="0"/>  
 <Button android:id="@+id/btnClear" android:text="C"/>  
 <Button android:id="@+id/btnDivide" android:text="÷"/>  
  
 </GridLayout>  
  
 <!-- Equals Button -->  
 <Button  
 android:id="@+id/btnEqual"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:text="="  
 android:layout\_marginTop="10dp"/>  
  
</LinearLayout>

JAVA:

package com.example.calculator;

import android.os.Bundle;

import android.view.View;

import android.widget.Button;

import android.widget.EditText;

import androidx.appcompat.app.AppCompatActivity;

public class MainActivity extends AppCompatActivity {

private EditText editText;

private String input = "";

private String operator = "";

private double num1 = 0, num2 = 0;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

editText = findViewById(R.id.editText);

// Number Button Click Listeners

int[] numberButtons = {R.id.btn0, R.id.btn1, R.id.btn2, R.id.btn3, R.id.btn4,

R.id.btn5, R.id.btn6, R.id.btn7, R.id.btn8, R.id.btn9, R.id.btnDot};

View.OnClickListener numberClickListener = new View.OnClickListener() {

@Override

public void onClick(View v) {

Button button = (Button) v;

input += button.getText().toString();

editText.setText(input);

}

};

for (int id : numberButtons) {

findViewById(id).setOnClickListener(numberClickListener);

}

// Operator Buttons (+, -, \*, /)

int[] operatorButtons = {R.id.btnAdd, R.id.btnSubtract, R.id.btnMultiply, R.id.btnDivide};

View.OnClickListener operatorClickListener = new View.OnClickListener() {

@Override

public void onClick(View v) {

if (!input.isEmpty()) {

num1 = Double.parseDouble(input);

input = "";

Button button = (Button) v;

operator = button.getText().toString();

editText.setText(operator);

}

}

};

for (int id : operatorButtons) {

findViewById(id).setOnClickListener(operatorClickListener);

}

// Equals Button

findViewById(R.id.btnEqual).setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

if (!input.isEmpty() && !operator.isEmpty()) {

num2 = Double.parseDouble(input);

double result = 0;

switch (operator) {

case "+": result = num1 + num2; break;

case "-": result = num1 - num2; break;

case "×": result = num1 \* num2; break;

case "÷": result = (num2 != 0) ? num1 / num2 : 0; break;

}

editText.setText(String.valueOf(result));

input = String.valueOf(result);

operator = "";

}

}

});

// Clear Button

findViewById(R.id.btnClear).setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

input = "";

operator = "";

num1 = num2 = 0;

editText.setText("");

}

});

}

}

----------------------------------------------------spinner----------------------------------------------------

<?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="20dp">

<!-- Input Field -->

<TextView

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Enter Item :"

android:textSize="16sp"

android:paddingBottom="5dp"/>

<EditText

android:id="@+id/editTextItem"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:hint="Enter Item"/>

<!-- Buttons -->

<Button

android:id="@+id/btnAdd"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Add to spinner"

android:layout\_marginTop="10dp"/>

<Button

android:id="@+id/btnRemove"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Remove from spinner"

android:layout\_marginTop="10dp"/>

<!-- Response Text -->

<TextView

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="See Response Below"

android:textSize="16sp"

android:layout\_marginTop="15dp"/>

<!-- Spinner -->

<Spinner

android:id="@+id/spinnerItems"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:layout\_marginTop="10dp"/>

</LinearLayout>

JAVA:

package com.example.spinnerapp;

import android.os.Bundle;

import android.view.View;

import android.widget.\*;

import androidx.appcompat.app.AppCompatActivity;

import java.util.ArrayList;

public class MainActivity extends AppCompatActivity {

private EditText editTextItem;

private Button btnAdd, btnRemove;

private Spinner spinnerItems;

private ArrayList<String> itemList;

private ArrayAdapter<String> adapter;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

// Initialize UI Elements

editTextItem = findViewById(R.id.editTextItem);

btnAdd = findViewById(R.id.btnAdd);

btnRemove = findViewById(R.id.btnRemove);

spinnerItems = findViewById(R.id.spinnerItems);

// Initialize Spinner Data

itemList = new ArrayList<>();

itemList.add("Apple"); // Default Item

adapter = new ArrayAdapter<>(this, android.R.layout.simple\_spinner\_dropdown\_item, itemList);

spinnerItems.setAdapter(adapter);

// Add Item to Spinner

btnAdd.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

String newItem = editTextItem.getText().toString().trim();

if (!newItem.isEmpty() && !itemList.contains(newItem)) {

itemList.add(newItem);

adapter.notifyDataSetChanged();

Toast.makeText(MainActivity.this, newItem + " added!", Toast.LENGTH\_SHORT).show();

} else {

Toast.makeText(MainActivity.this, "Enter a valid, unique item", Toast.LENGTH\_SHORT).show();

}

}

});

// Remove Item from Spinner

btnRemove.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

String selectedItem = spinnerItems.getSelectedItem().toString();

if (itemList.contains(selectedItem)) {

itemList.remove(selectedItem);

adapter.notifyDataSetChanged();

Toast.makeText(MainActivity.this, selectedItem + " removed!", Toast.LENGTH\_SHORT).show();

} else {

Toast.makeText(MainActivity.this, "Item not found!", Toast.LENGTH\_SHORT).show();

}

}

});

}

}

-----------------------------------------------------change image (setfactory)---------------------------------------------

<?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="20dp">  
  
 <ImageSwitcher  
 android:id="@+id/imageSwitcher"  
 android:layout\_width="300dp"  
 android:layout\_height="300dp"  
 android:background="#ddd" />  
  
 <Button  
 android:id="@+id/btnNext"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Next Image"  
 android:layout\_marginTop="20dp"/>  
  
</LinearLayout>

JAVA:

package com.example.myapplication;  
  
  
import android.os.Bundle;  
import android.view.View;  
import android.widget.Button;  
import android.widget.ImageSwitcher;  
import android.widget.ImageView;  
import android.widget.ViewSwitcher;  
import androidx.appcompat.app.AppCompatActivity;  
  
public class MainActivity extends AppCompatActivity {  
  
 private ImageSwitcher imageSwitcher;  
 private Button btnNext;  
 private int[] images = {R.drawable.*image1*, R.drawable.*image2*, R.drawable.*image3*}; // Add images in res/drawable  
 private int currentIndex = 0;  
  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_main*);  
  
 imageSwitcher = findViewById(R.id.*imageSwitcher*);  
 btnNext = findViewById(R.id.*btnNext*);  
  
 // Set the ImageSwitcher factory to create ImageView dynamically  
 imageSwitcher.setFactory(new ViewSwitcher.ViewFactory() {  
 @Override  
 public View makeView() {  
 ImageView imageView = new ImageView(getApplicationContext());  
 imageView.setScaleType(ImageView.ScaleType.*FIT\_CENTER*);  
 return imageView;  
 }  
 });  
  
 // Set initial image  
 imageSwitcher.setImageResource(images[currentIndex]);  
  
 // Button click event to change images  
 btnNext.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View v) {  
 currentIndex = (currentIndex + 1) % images.length; // Loop through images  
 imageSwitcher.setImageResource(images[currentIndex]);  
 }  
 });  
 }  
}

========add images in drawble ==========

----------------------------------------------------------------date picker--------------------------------------------

<?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="20dp">

<TextView

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Select a Date using DatePicker"

android:textSize="18sp" />

<DatePicker

android:id="@+id/datePicker"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:calendarViewShown="true"/>

<View

android:layout\_width="match\_parent"

android:layout\_height="2dp"

android:background="#000"

android:layout\_marginTop="20dp" />

<TextView

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Select a Date using DatePickerDialog"

android:textSize="18sp"

android:layout\_marginTop="20dp"/>

<Button

android:id="@+id/buttonSelectDate"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:text="Open DatePickerDialog"/>

<TextView

android:id="@+id/textViewSelectedDate"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Selected Date: "

android:textSize="16sp"

android:layout\_marginTop="10dp"/>

</LinearLayout>

JAVA:

package com.example.datepickerdemo;

import android.app.DatePickerDialog;

import android.os.Bundle;

import android.widget.Button;

import android.widget.DatePicker;

import android.widget.TextView;

import androidx.appcompat.app.AppCompatActivity;

import java.util.Calendar;

public class MainActivity extends AppCompatActivity {

private DatePicker datePicker;

private Button buttonSelectDate;

private TextView textViewSelectedDate;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

// Initialize UI elements

datePicker = findViewById(R.id.datePicker);

buttonSelectDate = findViewById(R.id.buttonSelectDate);

textViewSelectedDate = findViewById(R.id.textViewSelectedDate);

// Get current date

Calendar calendar = Calendar.getInstance();

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

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

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

// Display selected date when DatePicker changes

datePicker.init(year, month, day, (view, selectedYear, selectedMonth, selectedDay) -> {

textViewSelectedDate.setText("Selected Date: " + selectedDay + "/" + (selectedMonth + 1) + "/" + selectedYear);

});

// Button click to show DatePickerDialog

buttonSelectDate.setOnClickListener(v -> {

DatePickerDialog datePickerDialog = new DatePickerDialog(MainActivity.this,

(view, selectedYear, selectedMonth, selectedDay) -> {

textViewSelectedDate.setText("Selected Date: " + selectedDay + "/" + (selectedMonth + 1) + "/" + selectedYear);

}, year, month, day);

datePickerDialog.show();

});

}

}

**Add Activity in AndroidManifest.xml**

xml

CopyEdit

<activity android:name=".MainActivity"/>

----------------------------------------------- date wise image-----------------------------------------------------<?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="20dp">

<Button

android:id="@+id/buttonSelectDate"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Select Date" />

<TextView

android:id="@+id/textViewSelectedDate"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Selected Date: "

android:textSize="18sp"

android:layout\_marginTop="10dp"/>

<ImageView

android:id="@+id/imageView"

android:layout\_width="200dp"

android:layout\_height="200dp"

android:layout\_marginTop="20dp"

android:scaleType="fitCenter" />

</LinearLayout>

JAVA:

package com.example.dateimageapp;

import android.app.DatePickerDialog;

import android.os.Bundle;

import android.widget.Button;

import android.widget.DatePicker;

import android.widget.ImageView;

import android.widget.TextView;

import androidx.appcompat.app.AppCompatActivity;

import java.util.Calendar;

public class MainActivity extends AppCompatActivity {

private Button buttonSelectDate;

private TextView textViewSelectedDate;

private ImageView imageView;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

// Initialize UI elements

buttonSelectDate = findViewById(R.id.buttonSelectDate);

textViewSelectedDate = findViewById(R.id.textViewSelectedDate);

imageView = findViewById(R.id.imageView);

// Set button click listener

buttonSelectDate.setOnClickListener(v -> showDatePickerDialog());

}

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);

DatePickerDialog datePickerDialog = new DatePickerDialog(this, (view, selectedYear, selectedMonth, selectedDay) -> {

String selectedDate = selectedDay + "/" + (selectedMonth + 1) + "/" + selectedYear;

textViewSelectedDate.setText("Selected Date: " + selectedDate);

displayImage(selectedDay);

}, year, month, day);

datePickerDialog.show();

}

private void displayImage(int day) {

// Change image based on the selected date

if (day % 3 == 0) {

imageView.setImageResource(R.drawable.image1);

} else if (day % 3 == 1) {

imageView.setImageResource(R.drawable.image2);

} else {

imageView.setImageResource(R.drawable.image3);

}

}

}

**4️⃣ Add Activity in AndroidManifest.xml**

xml

CopyEdit

<activity android:name=".MainActivity"/>

---------------------------------------------------------------- palindrome--------------------------------------

<?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="20dp">

<EditText

android:id="@+id/getnum"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:hint="Enter a number"

android:inputType="number"

android:textSize="18sp"/>

<Button

android:id="@+id/checkButton"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Check"

android:layout\_marginTop="10dp"/>

<TextView

android:id="@+id/lbldisplay"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:textSize="20sp"

android:text="Result will be displayed here"

android:textColor="#000000"

android:layout\_marginTop="20dp"/>

</LinearLayout>

JAVA:

package com.example.palindromechecker;

import android.os.Bundle;

import android.view.View;

import android.widget.Button;

import android.widget.EditText;

import android.widget.TextView;

import androidx.appcompat.app.AppCompatActivity;

public class MainActivity extends AppCompatActivity {

private EditText getnum;

private Button checkButton;

private TextView lbldisplay;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

// Initialize UI elements

getnum = findViewById(R.id.getnum);

checkButton = findViewById(R.id.checkButton);

lbldisplay = findViewById(R.id.lbldisplay);

// Set button click listener

checkButton.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

checkPalindrome();

}

});

}

private void checkPalindrome() {

String numStr = getnum.getText().toString().trim();

if (numStr.isEmpty()) {

lbldisplay.setText("Please enter a number!");

return;

}

// Reverse the number

String reversedStr = new StringBuilder(numStr).reverse().toString();

if (numStr.equals(reversedStr)) {

lbldisplay.setText("The number is a Palindrome!");

} else {

lbldisplay.setText("The number is NOT a Palindrome!");

}

}

}

**<activity android:name=".MainActivity"/>**

--------------------------------------image chnager displayed on screen-----------------------------------------------------\

<?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="20dp">

<ImageView

android:id="@+id/imageView"

android:layout\_width="200dp"

android:layout\_height="200dp"

android:src="@drawable/image1"

android:scaleType="centerCrop"

android:onClick="changeImage" />

</LinearLayout>

JAVA:

package com.example.imagechanger;

import android.os.Bundle;

import android.view.View;

import android.widget.ImageView;

import androidx.appcompat.app.AppCompatActivity;

public class MainActivity extends AppCompatActivity {

private ImageView imageView;

private int[] images = {R.drawable.image1, R.drawable.image2, R.drawable.image3};

private int currentIndex = 0;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

imageView = findViewById(R.id.imageView);

imageView.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

changeImage();

}

});

}

public void changeImage() {

currentIndex = (currentIndex + 1) % images.length;

imageView.setImageResource(images[currentIndex]);

}

}

------------------------------------------------------ DB customer ---------------------------------------

<?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="20dp">

<EditText

android:id="@+id/editTextId"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:hint="Customer ID"

android:inputType="number"/>

<EditText

android:id="@+id/editTextName"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:hint="Customer Name"/>

<EditText

android:id="@+id/editTextAddress"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:hint="Customer Address"/>

<EditText

android:id="@+id/editTextPhone"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:hint="Phone Number"

android:inputType="phone"/>

<Button

android:id="@+id/buttonInsert"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:text="Insert Customer"/>

<Button

android:id="@+id/buttonViewAll"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:text="View Customers"/>

<TextView

android:id="@+id/textViewCustomers"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:textSize="16sp"

android:padding="10dp"/>

</LinearLayout>

JAVA:

package com.example.customerapp;

import android.database.Cursor;

import android.database.sqlite.SQLiteDatabase;

import android.database.sqlite.SQLiteOpenHelper;

import android.content.ContentValues;

import android.content.Context;

import android.os.Bundle;

import android.view.View;

import android.widget.Button;

import android.widget.EditText;

import android.widget.TextView;

import android.widget.Toast;

import androidx.appcompat.app.AppCompatActivity;

public class MainActivity extends AppCompatActivity {

private EditText editTextId, editTextName, editTextAddress, editTextPhone;

private Button buttonInsert, buttonViewAll;

private TextView textViewCustomers;

private DatabaseHelper dbHelper;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

editTextId = findViewById(R.id.editTextId);

editTextName = findViewById(R.id.editTextName);

editTextAddress = findViewById(R.id.editTextAddress);

editTextPhone = findViewById(R.id.editTextPhone);

buttonInsert = findViewById(R.id.buttonInsert);

buttonViewAll = findViewById(R.id.buttonViewAll);

textViewCustomers = findViewById(R.id.textViewCustomers);

dbHelper = new DatabaseHelper(this);

buttonInsert.setOnClickListener(v -> insertCustomer());

buttonViewAll.setOnClickListener(v -> displayCustomers());

}

private void insertCustomer() {

int id = Integer.parseInt(editTextId.getText().toString().trim());

String name = editTextName.getText().toString().trim();

String address = editTextAddress.getText().toString().trim();

String phone = editTextPhone.getText().toString().trim();

boolean inserted = dbHelper.insertCustomer(id, name, address, phone);

if (inserted) {

Toast.makeText(this, "Customer Added!", Toast.LENGTH\_SHORT).show();

} else {

Toast.makeText(this, "Insertion Failed!", Toast.LENGTH\_SHORT).show();

}

}

private void displayCustomers() {

Cursor cursor = dbHelper.getAllCustomers();

StringBuilder sb = new StringBuilder();

while (cursor.moveToNext()) {

sb.append("ID: ").append(cursor.getInt(0))

.append("\nName: ").append(cursor.getString(1))

.append("\nAddress: ").append(cursor.getString(2))

.append("\nPhone: ").append(cursor.getString(3))

.append("\n\n");

}

textViewCustomers.setText(sb.toString());

}

class DatabaseHelper extends SQLiteOpenHelper {

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

private static final String TABLE\_NAME = "Customer";

private static final String COL\_ID = "id";

private static final String COL\_NAME = "name";

private static final String COL\_ADDRESS = "address";

private static final String COL\_PHONE = "phno";

public DatabaseHelper(Context context) {

super(context, DATABASE\_NAME, null, 1);

}

@Override

public void onCreate(SQLiteDatabase db) {

String createTable = "CREATE TABLE " + TABLE\_NAME + " (" +

COL\_ID + " INTEGER PRIMARY KEY, " +

COL\_NAME + " TEXT, " +

COL\_ADDRESS + " TEXT, " +

COL\_PHONE + " TEXT)";

db.execSQL(createTable);

}

@Override

public void onUpgrade(SQLiteDatabase db, int oldVersion, int newVersion) {

db.execSQL("DROP TABLE IF EXISTS " + TABLE\_NAME);

onCreate(db);

}

public boolean insertCustomer(int id, String name, String address, String phone) {

SQLiteDatabase db = this.getWritableDatabase();

ContentValues contentValues = new ContentValues();

contentValues.put(COL\_ID, id);

contentValues.put(COL\_NAME, name);

contentValues.put(COL\_ADDRESS, address);

contentValues.put(COL\_PHONE, phone);

long result = db.insert(TABLE\_NAME, null, contentValues);

return result != -1;

}

public Cursor getAllCustomers() {

SQLiteDatabase db = this.getReadableDatabase();

return db.rawQuery("SELECT \* FROM " + TABLE\_NAME, null);

}

}

}

------------------------------------------------------QUizz------------------------------

<?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="20dp">

<TextView

android:id="@+id/questionText"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:textSize="20sp"

android:textStyle="bold"

android:padding="10dp"

android:text="Question will appear here" />

<RadioGroup

android:id="@+id/optionsGroup"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content">

<RadioButton android:id="@+id/option1" android:layout\_width="wrap\_content" android:layout\_height="wrap\_content"/>

<RadioButton android:id="@+id/option2" android:layout\_width="wrap\_content" android:layout\_height="wrap\_content"/>

<RadioButton android:id="@+id/option3" android:layout\_width="wrap\_content" android:layout\_height="wrap\_content"/>

<RadioButton android:id="@+id/option4" android:layout\_width="wrap\_content" android:layout\_height="wrap\_content"/>

</RadioGroup>

<Button

android:id="@+id/nextButton"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:text="Next Question"/>

<TextView

android:id="@+id/scoreText"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:textSize="18sp"

android:padding="10dp"

android:visibility="gone"/>

</LinearLayout>

JAVA:

package com.example.quizapp;

import android.os.Bundle;

import android.view.View;

import android.widget.Button;

import android.widget.RadioButton;

import android.widget.RadioGroup;

import android.widget.TextView;

import androidx.appcompat.app.AppCompatActivity;

public class MainActivity extends AppCompatActivity {

private TextView questionText, scoreText;

private RadioGroup optionsGroup;

private RadioButton option1, option2, option3, option4;

private Button nextButton;

private int currentQuestionIndex = 0;

private int score = 0;

private String[] questions = {

"What is the capital of France?",

"Which planet is known as the Red Planet?",

"Who wrote 'Romeo and Juliet'?",

"Which is the largest ocean on Earth?",

"What is 5 + 3?"

};

private String[][] options = {

{"Berlin", "Madrid", "Paris", "Rome"},

{"Earth", "Mars", "Venus", "Jupiter"},

{"Shakespeare", "Hemingway", "Austen", "Dickens"},

{"Atlantic", "Pacific", "Indian", "Arctic"},

{"6", "7", "8", "9"}

};

private int[] correctAnswers = {2, 1, 0, 1, 2}; // Correct option indexes

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

questionText = findViewById(R.id.questionText);

optionsGroup = findViewById(R.id.optionsGroup);

option1 = findViewById(R.id.option1);

option2 = findViewById(R.id.option2);

option3 = findViewById(R.id.option3);

option4 = findViewById(R.id.option4);

nextButton = findViewById(R.id.nextButton);

scoreText = findViewById(R.id.scoreText);

loadQuestion();

nextButton.setOnClickListener(v -> {

checkAnswer();

currentQuestionIndex++;

if (currentQuestionIndex < questions.length) {

loadQuestion();

} else {

showResult();

}

});

}

private void loadQuestion() {

questionText.setText(questions[currentQuestionIndex]);

option1.setText(options[currentQuestionIndex][0]);

option2.setText(options[currentQuestionIndex][1]);

option3.setText(options[currentQuestionIndex][2]);

option4.setText(options[currentQuestionIndex][3]);

optionsGroup.clearCheck();

}

private void checkAnswer() {

int selectedId = optionsGroup.getCheckedRadioButtonId();

if (selectedId == -1) return;

int selectedIndex = -1;

if (selectedId == option1.getId()) selectedIndex = 0;

else if (selectedId == option2.getId()) selectedIndex = 1;

else if (selectedId == option3.getId()) selectedIndex = 2;

else if (selectedId == option4.getId()) selectedIndex = 3;

if (selectedIndex == correctAnswers[currentQuestionIndex]) {

score++;

}

}

private void showResult() {

questionText.setText("Quiz Finished!");

optionsGroup.setVisibility(View.GONE);

nextButton.setVisibility(View.GONE);

scoreText.setText("Your Score: " + score + " / " + questions.length);

scoreText.setVisibility(View.VISIBLE);

}

}

--------------------------------------------------radio button-------------------------------------------------------

<?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="20dp"

android:gravity="center"

android:background="#FFFACD">

<EditText

android:id="@+id/etNumber"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:hint="Enter No"

android:inputType="number"/>

<RadioGroup

android:id="@+id/radioGroup"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content">

<RadioButton

android:id="@+id/rbOddEven"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Odd or Even" />

<RadioButton

android:id="@+id/rbPositiveNegative"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Positive or Negative" />

<RadioButton

android:id="@+id/rbSquare"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Square" />

<RadioButton

android:id="@+id/rbFactorial"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Factorial" />

</RadioGroup>

<Button

android:id="@+id/btnCalculate"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Click"/>

<TextView

android:id="@+id/tvResult"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:text="Ans: "

android:textSize="18sp"

android:textColor="#000000"/>

</LinearLayout>

JAVA:

package com.example.numberoperation;

import android.os.Bundle;

import android.view.View;

import android.widget.Button;

import android.widget.EditText;

import android.widget.RadioButton;

import android.widget.RadioGroup;

import android.widget.TextView;

import androidx.appcompat.app.AppCompatActivity;

public class MainActivity extends AppCompatActivity {

private EditText etNumber;

private RadioGroup radioGroup;

private TextView tvResult;

private Button btnCalculate;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

etNumber = findViewById(R.id.etNumber);

radioGroup = findViewById(R.id.radioGroup);

tvResult = findViewById(R.id.tvResult);

btnCalculate = findViewById(R.id.btnCalculate);

btnCalculate.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

performOperation();

}

});

}

private void performOperation() {

String input = etNumber.getText().toString();

if (input.isEmpty()) {

tvResult.setText("Please enter a number");

return;

}

int num = Integer.parseInt(input);

int selectedId = radioGroup.getCheckedRadioButtonId();

if (selectedId == -1) {

tvResult.setText("Please select an operation");

return;

}

if (selectedId == R.id.rbOddEven) {

tvResult.setText("Ans: No is " + (num % 2 == 0 ? "Even" : "Odd"));

} else if (selectedId == R.id.rbPositiveNegative) {

tvResult.setText("Ans: No is " + (num >= 0 ? "Positive" : "Negative"));

} else if (selectedId == R.id.rbSquare) {

tvResult.setText("Ans: Square is " + (num \* num));

} else if (selectedId == R.id.rbFactorial) {

tvResult.setText("Ans: Factorial is " + factorial(num));

}

}

private int factorial(int n) {

if (n == 0 || n == 1) return 1;

int fact = 1;

for (int i = 2; i <= n; i++) {

fact \*= i;

}

return fact;

}

}

------------------------------------------------------player--------------------------------------------

<?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/playerName"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:hint="Enter Player Name" />

<EditText

android:id="@+id/playerPoints"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:hint="Enter Points"

android:inputType="number" />

<Button

android:id="@+id/submitButton"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Submit" />

<TextView

android:id="@+id/displayText"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:textSize="20sp"

android:textStyle="bold"

android:paddingTop="20dp" />

</LinearLayout>

JAVA:

package com.example.myapplication;

import android.os.Bundle;

import android.view.View;

import android.widget.Button;

import android.widget.EditText;

import android.widget.TextView;

import androidx.appcompat.app.AppCompatActivity;

public class MainActivity extends AppCompatActivity {

private EditText playerNameInput, playerPointsInput;

private Button submitButton;

private TextView displayText;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

playerNameInput = findViewById(R.id.playerName);

playerPointsInput = findViewById(R.id.playerPoints);

submitButton = findViewById(R.id.submitButton);

displayText = findViewById(R.id.displayText);

submitButton.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

String playerName = playerNameInput.getText().toString();

String playerPoints = playerPointsInput.getText().toString();

displayText.setText("Player: " + playerName + "\nPoints: " + playerPoints);

}

});

}

}

--------------------------------------bank----------------------------------------------------------------

<?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="20dp">

<TextView

android:id="@+id/textBalance"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:text="Balance: ₹1000"

android:textSize="22sp"

android:textStyle="bold"

android:gravity="center"

android:padding="10dp" />

<EditText

android:id="@+id/editAmount"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:hint="Enter Amount"

android:inputType="number"

android:padding="10dp" />

<Button

android:id="@+id/btnDeposit"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:text="Deposit"

android:layout\_marginTop="10dp"

android:padding="10dp" />

<Button

android:id="@+id/btnWithdraw"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:text="Withdraw"

android:layout\_marginTop="10dp"

android:padding="10dp" />

</LinearLayout>

JAVA:

package com.example.bankapp;

import android.os.Bundle;

import android.view.View;

import android.widget.Button;

import android.widget.EditText;

import android.widget.TextView;

import android.widget.Toast;

import androidx.appcompat.app.AppCompatActivity;

public class MainActivity extends AppCompatActivity {

private TextView balanceText;

private EditText amountInput;

private Button btnDeposit, btnWithdraw;

private int balance = 1000; // Initial balance

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

balanceText = findViewById(R.id.textBalance);

amountInput = findViewById(R.id.editAmount);

btnDeposit = findViewById(R.id.btnDeposit);

btnWithdraw = findViewById(R.id.btnWithdraw);

// Display initial balance

updateBalance();

btnDeposit.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

depositAmount();

}

});

btnWithdraw.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

withdrawAmount();

}

});

}

private void depositAmount() {

String amountStr = amountInput.getText().toString();

if (!amountStr.isEmpty()) {

int amount = Integer.parseInt(amountStr);

balance += amount;

updateBalance(); // Update balance after deposit

Toast.makeText(this, "Deposited: ₹" + amount, Toast.LENGTH\_SHORT).show();

} else {

Toast.makeText(this, "Enter an amount", Toast.LENGTH\_SHORT).show();

}

amountInput.setText(""); // Clear input after transaction

}

private void withdrawAmount() {

String amountStr = amountInput.getText().toString();

if (!amountStr.isEmpty()) {

int amount = Integer.parseInt(amountStr);

if (amount <= balance) {

balance -= amount;

updateBalance(); // Update balance after withdrawal

Toast.makeText(this, "Withdrawn: ₹" + amount, Toast.LENGTH\_SHORT).show();

} else {

Toast.makeText(this, "Insufficient Balance!", Toast.LENGTH\_SHORT).show();

}

} else {

Toast.makeText(this, "Enter an amount", Toast.LENGTH\_SHORT).show();

}

amountInput.setText(""); // Clear input after transaction

}

private void updateBalance() {

balanceText.setText("Balance: ₹" + balance);

}

}