

AP SLIP SOLUTION

SLIP 1:

QUE1=> lifecycle

```
<?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"
    xmlns:tools="http://schemas.android.com/tools"
    android:id="@+id/main"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity">

    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Hello World!"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

</androidx.constraintlayout.widget.ConstraintLayout>
```

```
package com.example.lifecycle;

import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;
import android.widget.Toast;

public class MainActivity extends AppCompatActivity {

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        showToast("onCreate");
    }

    @Override
    protected void onStart() {
        super.onStart();
        showToast("onStart");
    }

    @Override
```

```

protected void onResume() {
    super.onResume();
    showToast("onResume");
}

@Override
protected void onPause() {
    super.onPause();
    showToast("onPause");
}

@Override
protected void onStop() {
    super.onStop();
    showToast("onStop");
}

@Override
protected void onDestroy() {
    super.onDestroy();
    showToast("onDestroy");
}

@Override
protected void onRestart() {
    super.onRestart();
    showToast("onRestart");
}

private void showToast(String message) {
    Toast.makeText(this, message, Toast.LENGTH_SHORT).show();
}
}

```

QUE2=>async task

```

<?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:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity">

    <Button
        android:id="@+id/start_button"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Start AsyncTask"
        android:layout_centerInParent="true"/>

</RelativeLayout>

```

```

package com.example.slip1_q2;

import android.app.ProgressDialog;
import android.content.Context;
import android.os.AsyncTask;
import android.os.Bundle;
import androidx.appcompat.app.AppCompatActivity;
import android.view.View;
import android.widget.Button;

public class MainActivity extends AppCompatActivity {

    private Button startButton;

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

        startButton = findViewById(R.id.start_button);
        startButton.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                // Execute AsyncTask when the button is clicked
                new MyAsyncTask(MainActivity.this).execute();
            }
        });
    }

    // AsyncTask to perform background operation
    private static class MyAsyncTask extends AsyncTask<Void, Integer, Void> {

        private ProgressDialog progressDialog;
        private Context context;

        MyAsyncTask(Context context) {
            this.context = context;
        }

        @Override
        protected void onPreExecute() {
            super.onPreExecute();
            // Show progress dialog before starting background operation
            progressDialog = new ProgressDialog(context);
            progressDialog.setMessage("Loading...");
            progressDialog.setProgressStyle(ProgressDialog.STYLE_HORIZONTAL);
            progressDialog.setProgress(0);
            progressDialog.setMax(100);
            progressDialog.show();
        }
    }
}

```

```

@Override
protected Void doInBackground(Void... params) {
    // Simulate a time-consuming task
    for (int i = 0; i < 100; i++) {
        // Update progress
        publishProgress(i);
        // Delay execution to simulate a time-consuming task
        try {
            Thread.sleep(100);
        } catch (InterruptedException e) {
            e.printStackTrace();
        }
    }
    return null;
}

@Override
protected void onProgressUpdate(Integer... values) {
    super.onProgressUpdate(values);
    // Update progress dialog with current progress
    progressDialog.setProgress(values[0]);
}

@Override
protected void onPostExecute(Void result) {
    super.onPostExecute(result);
    // Dismiss progress dialog after background operation is
    completed
    progressDialog.dismiss();
}
}
}

```

QUE2 =>datapicker

```

<?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:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity">

    <Button
        android:id="@+id/show_date_picker_button"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Show DatePickerDialog"
        android:layout_centerInParent="true"/>

    <TextView
        android:id="@+id/date_text_view"
        android:layout_width="wrap_content"

```

```
        android:layout_height="wrap_content"
        android:layout_below="@id/show_date_picker_button"
        android:layout_marginTop="16dp"
        android:layout_centerHorizontal="true"
        android:text="Selected Date:"
        android:textSize="18sp"
        android:textStyle="bold"/>
```

```
</RelativeLayout>
```

```
package com.example.slip1_q2b;

import android.app.DatePickerDialog;
import android.os.Bundle;
import androidx.appcompat.app.AppCompatActivity;
import android.view.View;
import android.widget.Button;
import android.widget.DatePicker;
import android.widget.TextView;

import java.util.Calendar;

public class MainActivity extends AppCompatActivity {

    private TextView dateTextView;
    private Button showDatePickerButton;

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

        dateTextView = findViewById(R.id.date_text_view);
        showDatePickerButton = findViewById(R.id.show_date_picker_button);

        // Set click listener for the button to show the DatePickerDialog
        showDatePickerButton.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                showDatePickerDialog();
            }
        });
    }

    private void showDatePickerDialog() {
        // Get current date
        Calendar calendar = Calendar.getInstance();
        int year = calendar.get(Calendar.YEAR);
        int month = calendar.get(Calendar.MONTH);
        int dayOfMonth = calendar.get(Calendar.DAY_OF_MONTH);

        // Create DatePickerDialog and set listener
    }
}
```

```
        DatePickerDialog datePickerDialog = new DatePickerDialog(
            this,
            new DatePickerDialog.OnDateSetListener() {
                @Override
                public void onDateSet(DatePicker view, int year, int
month, int dayOfMonth) {
                    // Display selected date in TextView
                    String selectedDate = dayOfMonth + "/" + (month + 1)
+ "/" + year;
                    dateTextView.setText("Selected Date: " +
selectedDate);
                }
            },
            year, month, dayOfMonth);

        // Show the DatePickerDialog
        datePickerDialog.show();
    }
}
```

SLIP 2:

QUE1=>factorial value

Activity_main.xml

```
<?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:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity">

    <EditText
        android:id="@+id/number_edit_text"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:hint="Enter a positive number"
        android:layout_centerInParent="true"/>

    <Button
        android:id="@+id/submit_button"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Submit"
        android:layout_below="@id/number_edit_text"
        android:layout_centerHorizontal="true"
        android:layout_marginTop="16dp"/>

</RelativeLayout>
```

Activity_result.xml

```
<?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:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity">

    <TextView
        android:id="@+id/result_text_view"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Factorial Value:"
        android:textSize="18sp"
        android:textStyle="bold"
        android:layout_centerInParent="true"/>

</RelativeLayout>
```

MainActivity.java

```
package com.example.slip2_q1;

import android.content.Intent;
import android.os.Bundle;
import androidx.appcompat.app.AppCompatActivity;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;

public class MainActivity extends AppCompatActivity {

    private EditText numberEditText;
    private Button submitButton;

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

        numberEditText = findViewById(R.id.number_edit_text);
        submitButton = findViewById(R.id.submit_button);

        submitButton.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                // Read the number input by the user
                String numberStr =
numberEditText.getText().toString().trim();

                if (!numberStr.isEmpty()) {
                    // Convert the string to integer
                    int number = Integer.parseInt(numberStr);

                    // Pass the number to ResultActivity
                    Intent intent = new Intent(MainActivity.this,
ResultActivity.class);
                    intent.putExtra("number", number);
                    startActivity(intent);
                }
            }
        });
    }
}
```

ResultActivity.java


```

package com.example.slip2_q1;

import android.os.Bundle;
import androidx.appcompat.app.AppCompatActivity;
import android.widget.TextView;

public class ResultActivity extends AppCompatActivity {

    private TextView resultTextView;

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

        resultTextView = findViewById(R.id.result_text_view);

        // Get the number passed from MainActivity
        int number = getIntent().getIntExtra("number", 0);

        // Calculate factorial value
        long factorial = calculateFactorial(number);

        // Display the factorial value
        resultTextView.setText("Factorial Value: " + factorial);
    }

    // Method to calculate factorial recursively
    private long calculateFactorial(int n) {
        if (n == 0 || n == 1) {
            return 1;
        } else {
            return n * calculateFactorial(n - 1);
        }
    }
}

```

Add following snippet in manifest.xml

```

<activity
    android:name=".ResultActivity"
    android:exported="true">
</activity>

```

QUE2=> audio

QUE2=> google map

SLIP 3:

QUE1=>change font size and style

```
<?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:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity">

    <TextView
        android:id="@+id/college_name_text_view"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="MIT ACSC, PUNE"
        android:textSize="24sp"
        android:textStyle="bold"
        android:textColor="@color/white"
        android:layout_centerInParent="true"/>

    <Button
        android:id="@+id/change_color_button"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Change Color"
        android:layout_below="@id/college_name_text_view"
        android:layout_alignParentStart="true"
        android:layout_marginTop="16dp"/>

    <Button
        android:id="@+id/change_size_button"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Change Size"
        android:layout_below="@id/college_name_text_view"
        android:layout_centerHorizontal="true"
        android:layout_marginTop="16dp"/>

    <Button
        android:id="@+id/change_style_button"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Change Style"
        android:layout_below="@id/college_name_text_view"
        android:layout_alignParentEnd="true"
        android:layout_marginTop="16dp"/>

</RelativeLayout>
```

```
package com.example.slip3_q1;

import android.graphics.Color;
import android.graphics.Typeface;
import android.os.Bundle;
import androidx.appcompat.app.AppCompatActivity;
import android.view.View;
import android.widget.Button;
import android.widget.TextView;

public class MainActivity extends AppCompatActivity {

    private TextView collegeNameTextView;
    private Button changeColorButton;
    private Button changeSizeButton;
    private Button changeStyleButton;

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

        collegeNameTextView = findViewById(R.id.college_name_text_view);
        changeColorButton = findViewById(R.id.change_color_button);
        changeSizeButton = findViewById(R.id.change_size_button);
        changeStyleButton = findViewById(R.id.change_style_button);

        // Set OnClickListener for Change Color button
        changeColorButton.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                // Change text color to red
                collegeNameTextView.setTextColor(Color.RED);
            }
        });

        // Set OnClickListener for Change Size button
        changeSizeButton.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                // Change font size to 28sp
                collegeNameTextView.setTextSize(28);
            }
        });

        // Set OnClickListener for Change Style button
        changeStyleButton.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                // Change font style to italic
                collegeNameTextView.setTypeface(null, Typeface.ITALIC);
            }
        });
    }
}
```

```
}  
}
```

QUE2=>factorial no.

```
<?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:layout_width="match_parent"  
    android:layout_height="match_parent"  
    tools:context=".MainActivity">  
  
    <EditText  
        android:id="@+id/number_edit_text"  
        android:layout_width="match_parent"  
        android:layout_height="wrap_content"  
        android:hint="Enter a number"  
        android:inputType="number"  
        android:layout_margin="16dp"/>  
  
    <Button  
        android:id="@+id/calculate_button"  
        android:layout_width="wrap_content"  
        android:layout_height="wrap_content"  
        android:text="Calculate Factorial"  
        android:layout_below="@id/number_edit_text"  
        android:layout_centerHorizontal="true"  
        android:layout_marginTop="16dp"/>  
  
</RelativeLayout>
```

```
package com.example.slip3_q2a;  
  
import android.app.AlertDialog;  
import android.content.DialogInterface;  
import android.os.Bundle;  
import androidx.appcompat.app.AppCompatActivity;  
import android.view.View;  
import android.widget.Button;  
import android.widget.EditText;  
  
public class MainActivity extends AppCompatActivity {  
  
    private EditText numberEditText;  
    private Button calculateButton;  
  
    @Override  
    protected void onCreate(Bundle savedInstanceState) {  
        super.onCreate(savedInstanceState);  
        setContentView(R.layout.activity_main);  
    }  
}
```

```

        numberEditText = findViewById(R.id.number_edit_text);
        calculateButton = findViewById(R.id.calculate_button);

        calculateButton.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                // Get the number entered by the user
                int number =
Integer.parseInt(numberEditText.getText().toString());

                // Calculate the factorial
                long factorial = calculateFactorial(number);

                // Display the result in an alert dialog
                displayResult(factorial);
            }
        });
    }

    // Method to calculate factorial
    private long calculateFactorial(int n) {
        long factorial = 1;
        for (int i = 1; i <= n; i++) {
            factorial *= i;
        }
        return factorial;
    }

    // Method to display the result in an alert dialog
    private void displayResult(long factorial) {
        AlertDialog.Builder builder = new AlertDialog.Builder(this);
        builder.setTitle("Factorial Result");
        builder.setMessage("The factorial of the number is: " + factorial);
        builder.setPositiveButton("OK", new DialogInterface.OnClickListener()
{
            @Override
            public void onClick(DialogInterface dialog, int which) {
                // Close the dialog
                dialog.dismiss();
            }
        });
        builder.show();
    }
}

```

QUE2=>student details

Activity_main.xml

```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:padding="16dp">

    <EditText
        android:id="@+id/nameEditText"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:hint="Name"
        android:layout_marginBottom="16dp"/>

    <EditText
        android:id="@+id/surnameEditText"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:hint="Surname"
        android:layout_below="@id/nameEditText"
        android:layout_marginBottom="16dp"/>

    <EditText
        android:id="@+id/classEditText"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:hint="Class"
        android:layout_below="@id/surnameEditText"
        android:layout_marginBottom="16dp"/>

    <EditText
        android:id="@+id/genderEditText"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:hint="Gender"
        android:layout_below="@id/classEditText"
        android:layout_marginBottom="16dp"/>

    <EditText
        android:id="@+id/hobbiesEditText"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:hint="Hobbies"
        android:layout_below="@id/genderEditText"
        android:layout_marginBottom="16dp"/>

    <EditText
        android:id="@+id/marksEditText"
        android:layout_width="match_parent"
```

```

        android:layout_height="wrap_content"
        android:hint="Marks"
        android:layout_below="@id/hobbiesEditText"
        android:layout_marginBottom="16dp"/>

<Button
    android:id="@+id/submitBtn"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Submit"
    android:layout_below="@id/marksEditText"
    android:layout_centerHorizontal="true"/>
</RelativeLayout>

```

Display_activity.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">

    <TableLayout
        android:id="@+id/detailsTable"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:padding="16dp">

        </TableLayout>
</ScrollView>

```

MainActivity.java

```

package com.example.slip16_q1;
import android.content.Intent;
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 {

    EditText nameEditText, surnameEditText, classEditText, genderEditText,
    hobbiesEditText, marksEditText;

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

```

```

        setContentView(R.layout.activity_main);

        nameEditText = findViewById(R.id.nameEditText);
        surnameEditText = findViewById(R.id.surnameEditText);
        classEditText = findViewById(R.id.classEditText);
        genderEditText = findViewById(R.id.genderEditText);
        hobbiesEditText = findViewById(R.id.hobbiesEditText);
        marksEditText = findViewById(R.id.marksEditText);

        Button submitBtn = findViewById(R.id.submitBtn);
        submitBtn.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                String name = nameEditText.getText().toString();
                String surname = surnameEditText.getText().toString();
                String studentClass = classEditText.getText().toString();
                String gender = genderEditText.getText().toString();
                String hobbies = hobbiesEditText.getText().toString();
                String marks = marksEditText.getText().toString();

                Intent intent = new Intent(MainActivity.this,
DisplayActivity.class);
                intent.putExtra("NAME", name);
                intent.putExtra("SURNAME", surname);
                intent.putExtra("CLASS", studentClass);
                intent.putExtra("GENDER", gender);
                intent.putExtra("HOBBIES", hobbies);
                intent.putExtra("MARKS", marks);
                startActivity(intent);
            }
        });
    }
}

```

DisplayActivity.java

```

package com.example.slip16_q1;

import android.content.Intent;
import android.os.Bundle;
import android.widget.TableLayout;
import android.widget.TableRow;
import android.widget.TextView;

import androidx.appcompat.app.AppCompatActivity;

public class DisplayActivity extends AppCompatActivity {

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

```



```

        setContentView(R.layout.activity_display);

        TableLayout detailsTable = findViewById(R.id.detailsTable);

        Intent intent = getIntent();
        String name = intent.getStringExtra("NAME");
        String surname = intent.getStringExtra("SURNAME");
        String studentClass = intent.getStringExtra("CLASS");
        String gender = intent.getStringExtra("GENDER");
        String hobbies = intent.getStringExtra("HOBBIES");
        String marks = intent.getStringExtra("MARKS");

        // Create table row for each detail
        addRowToTable(detailsTable, "Name", name);
        addRowToTable(detailsTable, "Surname", surname);
        addRowToTable(detailsTable, "Class", studentClass);
        addRowToTable(detailsTable, "Gender", gender);
        addRowToTable(detailsTable, "Hobbies", hobbies);
        addRowToTable(detailsTable, "Marks", marks);
    }

    private void addRowToTable(TableLayout table, String label, String value)
    {
        TableRow row = new TableRow(this);
        TextView labelTextView = new TextView(this);
        labelTextView.setText(label);
        TextView valueTextView = new TextView(this);
        valueTextView.setText(value);
        row.addView(labelTextView);
        row.addView(valueTextView);
        table.addView(row);
    }
}

```

SLIP4:

QUE1=>arithmetic operation

```
<?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"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity">

    <EditText
        android:id="@+id/first_number_edit_text"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:hint="Enter first number"
        android:inputType="number"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        android:layout_margin="16dp"/>

    <EditText
        android:id="@+id/second_number_edit_text"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:hint="Enter second number"
        android:inputType="number"
        app:layout_constraintTop_toBottomOf="@id/first_number_edit_text"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        android:layout_margin="16dp"/>

    <TextView
        android:id="@+id/result_text_view"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Result"
        app:layout_constraintTop_toBottomOf="@id/second_number_edit_text"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        android:layout_margin="16dp"/>

    <Button
        android:id="@+id/add_button"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Add"
        app:layout_constraintTop_toBottomOf="@id/result_text_view"
        app:layout_constraintStart_toStartOf="parent"
```

```

        app:layout_constraintEnd_toEndOf="parent"
        android:layout_margin="8dp"/>

<Button
    android:id="@+id/subtract_button"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Subtract"
    app:layout_constraintTop_toBottomOf="@id/add_button"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    android:layout_margin="8dp"/>

<Button
    android:id="@+id/multiply_button"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Multiply"
    app:layout_constraintTop_toBottomOf="@id/subtract_button"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    android:layout_margin="8dp"/>

<Button
    android:id="@+id/divide_button"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Divide"
    app:layout_constraintTop_toBottomOf="@id/multiply_button"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    android:layout_margin="8dp"/>

</androidx.constraintlayout.widget.ConstraintLayout>

```

```

package com.example.slip4_q1;

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 firstNumberEditText, secondNumberEditText;
    private TextView resultTextView;

    @Override
    protected void onCreate(Bundle savedInstanceState) {

```

```

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

firstNumberEditText = findViewById(R.id.first_number_edit_text);
secondNumberEditText = findViewById(R.id.second_number_edit_text);
resultTextView = findViewById(R.id.result_text_view);

Button addButton = findViewById(R.id.add_button);
Button subtractButton = findViewById(R.id.subtract_button);
Button multiplyButton = findViewById(R.id.multiply_button);
Button divideButton = findViewById(R.id.divide_button);

addButton.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View v) {
        calculate('+');
    }
});

subtractButton.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View v) {
        calculate('-');
    }
});

multiplyButton.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View v) {
        calculate('*');
    }
});

divideButton.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View v) {
        calculate('/');
    }
});

}

private void calculate(char operation) {
    try {
        double num1 =
Double.parseDouble(firstNumberEditText.getText().toString());
        double num2 =
Double.parseDouble(secondNumberEditText.getText().toString());
        double result = 0;

        switch (operation) {
            case '+':
                result = num1 + num2;
                break;

```

```
        case '-':
            result = num1 - num2;
            break;
        case '*':
            result = num1 * num2;
            break;
        case '/':
            if (num2 != 0) {
                result = num1 / num2;
            } else {
                resultTextView.setText("Cannot divide by zero");
                return;
            }
            break;
    }

    resultTextView.setText("Result: " + result);
} catch (NumberFormatException e) {
    resultTextView.setText("Invalid input");
}
}
```

QUE2=>notification

QUE2=>sql database

SLIP5:

QUE1=>find power and average

Activity_main.xml

```
<?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:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity">

    <EditText
        android:id="@+id/first_number_edit_text"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:hint="Enter first number"
        android:inputType="number"
        android:layout_margin="16dp"/>

    <EditText
        android:id="@+id/second_number_edit_text"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:hint="Enter second number"
        android:inputType="number"
        android:layout_below="@id/first_number_edit_text"
        android:layout_marginTop="16dp"
        android:layout_marginStart="16dp"
        android:layout_marginEnd="16dp"/>

    <Button
        android:id="@+id/calculate_button"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Calculate"
        android:layout_below="@id/second_number_edit_text"
        android:layout_centerHorizontal="true"
        android:layout_marginTop="24dp"/>

</RelativeLayout>
```

Activity_result.xml

```
<?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:layout_width="match_parent"
    android:layout_height="match_parent"
```

```

tools:context=".MainActivity">

<TextView
    android:id="@+id/power_text_view"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Power: "
    android:layout_margin="16dp"/>

<TextView
    android:id="@+id/average_text_view"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Average: "
    android:layout_below="@id/power_text_view"
    android:layout_marginTop="16dp"
    android:layout_marginStart="16dp"/>

</RelativeLayout>

```

MainActivity.java

```

package com.example.slip5_q1;

import android.content.Intent;
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 firstNumberEditText, secondNumberEditText;
    private Button calculateButton;

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

        firstNumberEditText = findViewById(R.id.first_number_edit_text);
        secondNumberEditText = findViewById(R.id.second_number_edit_text);
        calculateButton = findViewById(R.id.calculate_button);

        calculateButton.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                calculate();
            }
        });
    }
}

```

```

    }

    private void calculate() {
        double num1 =
Double.parseDouble(firstNumberEditText.getText().toString());
        double num2 =
Double.parseDouble(secondNumberEditText.getText().toString());

        double power = Math.pow(num1, num2);
        double average = (num1 + num2) / 2;

        Intent intent = new Intent(MainActivity.this, DisplayActivity.class);
        intent.putExtra("power", power);
        intent.putExtra("average", average);
        startActivity(intent);
    }
}

```

DisplayActivity.java

```

package com.example.slip5_q1;

import android.os.Bundle;
import android.widget.TextView;
import androidx.appcompat.app.AppCompatActivity;

public class DisplayActivity extends AppCompatActivity {

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

        TextView powerTextView = findViewById(R.id.power_text_view);
        TextView averageTextView = findViewById(R.id.average_text_view);

        double power = getIntent().getDoubleExtra("power", 0);
        double average = getIntent().getDoubleExtra("average", 0);

        powerTextView.setText("Power: " + power);
        averageTextView.setText("Average: " + average);
    }
}

```

add following snippet in manifest.xml

```

<activity
    android:name=".DisplayActivity"

```



```
        android:exported="true">
    </activity>
```

QUE2=>alert dialog box

Activity_main.xml

```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout_width="match_parent"
    android:layout_height="match_parent">

    <Button
        android:id="@+id/showAlertDialogButton"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Show Custom AlertDialog"
        android:layout_centerInParent="true"/>
</RelativeLayout>
```

Custom_alert.xml

```
<?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="wrap_content"
    android:orientation="vertical">

    <TextView
        android:id="@+id/friend1Button"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:text="John"
        android:padding="20dp"
        android:textSize="20sp"
        android:gravity="center"
        android:layout_margin="20dp"
        android:background="@android:color/darker_gray"
        android:textColor="@android:color/white"/>

    <TextView
        android:id="@+id/friend2Button"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:text="Alice"
        android:padding="20dp"
        android:textSize="20sp"
        android:layout_margin="20dp"
        android:gravity="center">
```

```
        android:background="@android:color/darker_gray"
        android:textColor="@android:color/white"/>
</LinearLayout>
```

MainActivity.java

```
package com.example.slip5_q1a;

import android.app.AlertDialog;
import android.content.Context;
import android.content.DialogInterface;
import android.os.Bundle;
import android.view.LayoutInflater;
import android.view.View;
import android.widget.Button;
import android.widget.TextView;
import android.widget.Toast;

import androidx.appcompat.app.AppCompatActivity;

public class MainActivity extends AppCompatActivity {

    private Context mContext;

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

        mContext = this;

        Button showAlertDialogButton =
findViewById(R.id.showAlertDialogButton);
        showAlertDialogButton.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                showCustomAlertDialog();
            }
        });
    }

    private void showCustomAlertDialog() {
        AlertDialog.Builder builder = new AlertDialog.Builder(mContext);
        LayoutInflater inflater = getLayoutInflater();
        View dialogView = inflater.inflate(R.layout.custom_alert, null);
        builder.setView(dialogView);

        TextView friend1Button = dialogView.findViewById(R.id.friend1Button);
        TextView friend2Button = dialogView.findViewById(R.id.friend2Button);

        final AlertDialog alertDialog = builder.create();
```

```

        friend1Button.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                greetFriend("John");
                alertDialog.dismiss();
            }
        });

        friend2Button.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                greetFriend("Alice");
                alertDialog.dismiss();
            }
        });

        alertDialog.show();
    }

    private void greetFriend(String friendName) {
        Toast.makeText(mContext, "Hello " + friendName + "!",
        Toast.LENGTH_SHORT).show();
    }
}

```

QUE2=>google map zoom in and out

SLIP 6:

QUE1=>send hello msg

Activity_main.xml

```
<?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:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity">

    <Button
        android:id="@+id/sendMessageButton"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Send Message"
        android:layout_centerInParent="true"/>

</RelativeLayout>
```

Display_message.xml

```
<?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:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".DisplayActivity">

    <TextView
        android:id="@+id/displayMessageTextView"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:textSize="24sp"
        android:layout_centerInParent="true"/>

</RelativeLayout>
```

MainActivity.java

```
package com.example.slip6_q1;

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

```

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 sendMessageButton = findViewById(R.id.sendMessageButton);
        sendMessageButton.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                sendMessage();
            }
        });

        private void sendMessage() {
            Intent intent = new Intent(this, DisplayActivity.class);
            intent.putExtra("message", "Hello!");
            startActivity(intent);
        }
    }
}

```

DisplayActivity.java

```

package com.example.slip6_q1;

import android.content.Intent;
import android.os.Bundle;
import android.widget.TextView;

import androidx.appcompat.app.AppCompatActivity;

public class DisplayActivity extends AppCompatActivity {

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

        Intent intent = getIntent();
        String message = intent.getStringExtra("message");

        TextView textView = findViewById(R.id.displayMessageTextView);
        textView.setText(message);
    }
}

```

add following snippet in manifest.xml

```
<activity
    android:name=".DisplayActivity"
    android:exported="true">
</activity>
```

QUE2=>listView

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:orientation="vertical"
    android:padding="16dp"
    tools:context=".MainActivity">

    <ListView
        android:id="@+id/listView"
        android:layout_width="match_parent"
        android:layout_height="wrap_content" />

</LinearLayout>
```

```
package com.example.slip6_q2a;

import android.os.Bundle;
import android.view.View;
import android.widget.AdapterView;
import android.widget.AdapterView.OnItemClickListener;
import android.widget.ArrayAdapter;
import android.widget.ListView;
import android.widget.Toast;

import androidx.appcompat.app.AppCompatActivity;

public class MainActivity extends AppCompatActivity {

    ListView listView;

    String[] data = {"Item 1", "Item 2", "Item 3", "Item 4", "Item 5"};

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

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

```
        ArrayAdapter<String> adapter = new ArrayAdapter<>(this,
android.R.layout.simple_list_item_1, data);
        listView.setAdapter(adapter);

        listView.setOnItemClickListener(new AdapterView.OnItemClickListener()
{
            @Override
            public void onItemClick(AdapterView<?> parent, View view, int
position, long id) {
                String selectedItem = (String)
parent.getItemAtPosition(position);
                showToast(selectedItem);
            }
        });

        private void showToast(String message) {
            Toast.makeText(this, message, Toast.LENGTH_SHORT).show();
        }
    }
}
```

QUE2=>add and delete student details

SLIP 7:

QUE1=>radio button

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:orientation="vertical"
    android:padding="16dp"
    tools:context=".MainActivity">

    <RadioGroup
        android:id="@+id/radioGroup"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:orientation="vertical">

        <RadioButton
            android:id="@+id/radioButton1"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:text="Option 1" />

        <RadioButton
            android:id="@+id/radioButton2"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:text="Option 2" />

        <RadioButton
            android:id="@+id/radioButton3"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:text="Option 3" />

    </RadioGroup>

</LinearLayout>
package com.example.slip7_q1;

import android.os.Bundle;
import android.view.View;
import android.widget.RadioButton;
import android.widget.RadioGroup;
import android.widget.Toast;

import androidx.appcompat.app.AppCompatActivity;

public class MainActivity extends AppCompatActivity {
```



```

private RadioGroup radioGroup;

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

    radioGroup = findViewById(R.id.radioGroup);

    radioGroup.setOnCheckedChangeListener(new
RadioGroup.OnCheckedChangeListener() {
        @Override
        public void onCheckedChanged(RadioGroup group, int checkedId) {
            RadioButton radioButton = findViewById(checkedId);
            String text = radioButton.getText().toString();
            showToast(text);
        }
    });
}

private void showToast(String message) {
    Toast.makeText(this, "Selected option: " + message,
Toast.LENGTH_SHORT).show();
}
}

```

QUE2=>phone call

QUE2=> on/off wifi

SLIP 8:

QUE1=>login using table layout

Activity_main.xml

```
<?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">

    <TableLayout
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:stretchColumns="*" >

        <TableRow>
            <TextView
                android:layout_width="wrap_content"
                android:layout_height="wrap_content"
                android:text="Username:" />

            <EditText
                android:id="@+id/usernameEditText"
                android:layout_width="match_parent"
                android:layout_height="wrap_content"
                android:hint="Enter username" />
        </TableRow>

        <TableRow>
            <TextView
                android:layout_width="wrap_content"
                android:layout_height="wrap_content"
                android:text="Password:" />

            <EditText
                android:id="@+id/passwordEditText"
                android:layout_width="match_parent"
                android:layout_height="wrap_content"
                android:inputType="textPassword"
                android:hint="Enter password" />
        </TableRow>

        <TableRow>
            <Button
                android:id="@+id/loginButton"
                android:layout_width="wrap_content"
```

```

                android:layout_height="wrap_content"
                android:text="Login" />
            </TableRow>

        </TableLayout>

    </LinearLayout>

```

Activity_next.xml

```

<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:gravity="center">

    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Welcome to Next Activity!"
        android:textSize="24sp"/>

</RelativeLayout>

```

MainActivity.java

```

package com.example.slip8_q1;

import android.content.Intent;
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 usernameEditText, passwordEditText;
    private Button loginButton;
    private TextView signUpTextView;

    // Hardcoded username and password for demonstration purposes
    private static final String CORRECT_USERNAME = "user";
    private static final String CORRECT_PASSWORD = "1234";

    @Override

```

```

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

    usernameEditText = findViewById(R.id.usernameEditText);
    passwordEditText = findViewById(R.id.passwordEditText);
    loginButton = findViewById(R.id.loginButton);

    loginButton.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View v) {
            login();
        }
    });

}

private void login() {
    String username = usernameEditText.getText().toString();
    String password = passwordEditText.getText().toString();

    if (username.equals(CORRECT_USERNAME) &&
password.equals(CORRECT_PASSWORD)) {
        // Successful login
        Toast.makeText(this, "Login successful!",
Toast.LENGTH_SHORT).show();
        goToNextActivity();
    } else {
        // Failed login
        Toast.makeText(this, "Invalid username or password",
Toast.LENGTH_SHORT).show();
    }
}

private void goToNextActivity() {
    Intent intent = new Intent(this, NextActivity.class);
    startActivity(intent);
}
}

```

NextActivity.java

```

package com.example.slip8_q1;

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);
}
}
```

add following snippet in manifest.xml

```
<activity
    android:name=".NextActivity"
    android:exported="true">
</activity>
```

QUE2=> service to download

QUE2=>send email with attachment

SLIP 9:

QUE1=>reject if num is greater than 10

```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:padding="16dp">

    <EditText
        android:id="@+id/number1EditText"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:hint="Enter number 1"
        android:inputType="number" />

    <EditText
        android:id="@+id/number2EditText"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_below="@id/number1EditText"
        android:layout_marginTop="16dp"
        android:hint="Enter number 2"
        android:inputType="number" />

    <Button
        android:id="@+id/submitButton"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_below="@id/number2EditText"
        android:layout_marginTop="16dp"
        android:text="Submit" />

    <TextView
        android:id="@+id/resultTextView"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_below="@id/submitButton"
        android:layout_marginTop="16dp"
        android:text="" />

</RelativeLayout>
```

```
package com.example.slip9_q1;

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 number1EditText;
    private EditText number2EditText;
    private Button submitButton;
    private TextView resultTextView;

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

        number1EditText = findViewById(R.id.number1EditText);
        number2EditText = findViewById(R.id.number2EditText);
        submitButton = findViewById(R.id.submitButton);
        resultTextView = findViewById(R.id.resultTextView);

        submitButton.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                validateAndDisplayNumbers();
            }
        });
    }

    private void validateAndDisplayNumbers() {
        int number1 = Integer.parseInt(number1EditText.getText().toString());
        int number2 = Integer.parseInt(number2EditText.getText().toString());

        if (number1 > 10 && number2 > 10) {
            // Both numbers are greater than 10, prompt user for new input
            resultTextView.setText("Both numbers should not be greater than
10. Please enter new numbers.");
            number1EditText.setText("");
            number2EditText.setText("");
        } else {
            // Display the numbers
            resultTextView.setText("Number 1: " + number1 + "\nNumber 2: " +
number2);
        }
    }
}

```

QUE2=> geocoding

QUE2=>insert and show company details

Activity_main.xml

```
<?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/etID"
        android:layout_width="385dp"
        android:layout_height="wrap_content"
        android:hint="Enter Company ID"
        android:inputType="text"
        android:minHeight="48dp" />

    <EditText
        android:id="@+id/etName"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:hint="Enter Company Name"
        android:inputType="text"
        android:minHeight="48dp" />

    <EditText
        android:id="@+id/etAddress"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:hint="Enter Company Address"
        android:inputType="text"
        android:minHeight="48dp" />

    <EditText
        android:id="@+id/etPhoneNumber"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:hint="Enter Company Phone Number"
        android:inputType="phone"
        android:minHeight="48dp" />

    <Button
        android:id="@+id/btnInsert"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Insert Data"
        android:layout_marginTop="16dp" />

    <ListView
        android:id="@+id/lvCompanies"
        android:layout_width="match_parent"
```



```
        android:layout_height="match_parent" />

</LinearLayout>
```

MainActivity.java

```
package com.example.assignment5seta1;

import android.database.Cursor;
import android.database.DatabaseUtils;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.ListView;
import android.widget.SimpleCursorAdapter;
import android.widget.Toast;

import androidx.activity.EdgeToEdge;
import androidx.appcompat.app.AppCompatActivity;
import androidx.core.graphics.Insets;
import androidx.core.view.ViewCompat;
import androidx.core.view.WindowInsetsCompat;

import com.example.assignment5seta1.R;

public class MainActivity extends AppCompatActivity {
    private DatabaseHelper dbHelper;
    private EditText etID, etName, etAddress, etPhoneNumber;
    private Button btnInsert;
    private ListView lvCompanies;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        EdgeToEdge.enable(this);
        setContentView(R.layout.activity_main);
        //ViewCompat.setOnApplyWindowInsetsListener(findViewById(R.id.main),
        (v, insets) -> {
            // Insets systemBars =
            insets.getInsets(WindowInsetsCompat.Type.systemBars());
            // v.setPadding(systemBars.left, systemBars.top, systemBars.right,
            systemBars.bottom);
            // return insets;
            // });

            lvCompanies=findViewById(R.id.lvCompanies);
            etID=findViewById(R.id.etID);
            etName=findViewById(R.id.etName);
            etAddress=findViewById(R.id.etAddress);
```

```

        etPhoneNumber=findViewById(R.id.etPhoneNumber);
        btnInsert = findViewById(R.id.btnInsert);

        dbHelper=new DatabaseHelper(this);

        btnInsert.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                Integer id =
Integer.valueOf(etID.getText().toString().trim());
                String name=etName.getText().toString().trim();
                String address=etAddress.getText().toString().trim();
                String phoneNumber=etPhoneNumber.getText().toString().trim();

                if (!name.isEmpty() && !address.isEmpty() &&
!phoneNumber.isEmpty()){
                    long newRowId =
dbHelper.insertCompany(id,name,address,phoneNumber);
                    if (newRowId!=-1){
                        Toast.makeText(MainActivity.this,"Data inserted
successfully",Toast.LENGTH_LONG).show();
                    }
                    else {
                        Toast.makeText(MainActivity.this, "Failed to insert
the data", Toast.LENGTH_SHORT).show();
                    }
                }
                else {
                    Toast.makeText(MainActivity.this, "Please Fill all the
fields", Toast.LENGTH_SHORT).show();
                }
            }
        });
        showAllCompanies();
    }
    private void showAllCompanies() {
        Cursor cursor=dbHelper.getAllCompanies();
        if(cursor!=null){
            String[] from =
{DatabaseHelper.COLUMN_ID,DatabaseHelper.COLUMN_NAME,DatabaseHelper.COLUMN_AD
DRESS,DatabaseHelper.COLUMN_PHNO};
            int[] to ={R.id.tvID,R.id.tvName,R.id.tvAddress,R.id.tvPhno};

            SimpleCursorAdapter adapter = new SimpleCursorAdapter(this,
                R.layout.company_item,cursor,from,to,0);
            lvCompanies.setAdapter(adapter);
        }
    }
}

```

DatabaseHelper.java

```
package com.example.assignment5seta1;

import android.content.ContentValues;
import android.content.Context;
import android.database.Cursor;
import android.database.sqlite.SQLiteDatabase;
import android.database.sqlite.SQLiteOpenHelper;
import android.util.Log;

public class DatabaseHelper extends SQLiteOpenHelper {
    private static final String DATABASE_NAME = "companies.db";
    private static final int DATABASE_VERSION = 2;
    public static final String TABLE_COMPANIES = "companies";
    public static final String COLUMN_ID = "id";
    public static final String COLUMN_NAME = "name";
    public static final String COLUMN_ADDRESS = "address";
    public static final String COLUMN_PHNO = "phone_number";

    private static final String TABLE_CREATE =
        "CREATE TABLE "+TABLE_COMPANIES+" (" +
            COLUMN_ID + " INTEGER PRIMARY KEY AUTOINCREMENT, " +
            COLUMN_NAME + " TEXT, " +
            COLUMN_ADDRESS + " TEXT, " +
            COLUMN_PHNO + " TEXT);";

    public DatabaseHelper(Context context){
        super(context, DATABASE_NAME, null, DATABASE_VERSION);
    }

    public void onCreate(SQLiteDatabase db){
        db.execSQL(TABLE_CREATE);
    }

    public void onUpgrade(SQLiteDatabase db, int oldVersion, int newVersion){
        db.execSQL("DROP TABLE IF EXISTS "+TABLE_COMPANIES);
        onCreate(db);
    }

    public long insertCompany(Integer id, String name, String address, String
phoneNumber){
        SQLiteDatabase db = this.getWritableDatabase();
        ContentValues values = new ContentValues();
        values.put(COLUMN_ID, id);
        values.put(COLUMN_NAME, name);
        values.put(COLUMN_ADDRESS, address);
        values.put(COLUMN_PHNO, phoneNumber);

        long result = db.insert(TABLE_COMPANIES, null, values);
        if (result == -1) {
            Log.e("DatabaseHelper", "Failed to insert data");
        } else {
            Log.d("DatabaseHelper", "Data inserted successfully, ID: " +
result);
        }
    }
}
```

```

    }
    return result;
}

public Cursor getAllCompanies(){
    SQLiteDatabase db=this.getReadableDatabase();
    return db.query(TABLE_COMPANIES,null,null,null,null,null,null);
}
}

```

company_item.xml

```

<?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="wrap_content"
    android:orientation="vertical"
    android:padding="8dp">

    <TextView
        android:id="@+id/tvID"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Company ID"
        android:textSize="18dp"/>

    <TextView
        android:id="@+id/tvName"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Company Name"
        android:textSize="18sp"/>

    <TextView
        android:id="@+id/tvAddress"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Company Address"
        android:textSize="18sp"/>

    <TextView
        android:id="@+id/tvPhno"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Phone number"
        android:textSize="14sp"/>
</LinearLayout>

```

AndroidManifest.xml

```
<?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.Assigment5setA1"
        tools:targetApi="31">
        <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>
```

SLIP 10:

QUE1=>switch and toggle button

```
<?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:layout_width="match_parent"
    android:layout_height="match_parent"
    android:padding="16dp"
    tools:context=".MainActivity">

    <Switch
        android:id="@+id/switchButton"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Switch"
        android:layout_marginBottom="16dp"/>
```

```

<ToggleButton
    android:id="@+id/toggleButton"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Toggle"
    android:layout_below="@id/switchButton"/>

<TextView
    android:id="@+id/switchStateTextView"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_below="@id/toggleButton"
    android:text="Switch State: "
    android:textStyle="bold"
    android:layout_marginTop="16dp"/>

<TextView
    android:id="@+id/toggleStateTextView"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_below="@id/switchStateTextView"
    android:text="Toggle State: "
    android:textStyle="bold"
    android:layout_marginTop="16dp"/>

</RelativeLayout>

```

```

package com.example.slip10_q1;

import android.os.Bundle;
import android.view.View;
import android.widget.CompoundButton;
import android.widget.Switch;
import android.widget.TextView;
import android.widget.ToggleButton;

import androidx.appcompat.app.AppCompatActivity;

public class MainActivity extends AppCompatActivity {

    private TextView switchStateTextView;
    private TextView toggleStateTextView;

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

        switchStateTextView = findViewById(R.id.switchStateTextView);
        toggleStateTextView = findViewById(R.id.toggleStateTextView);
    }
}

```

```

        Switch switchButton = findViewById(R.id.switchButton);
        ToggleButton toggleButton = findViewById(R.id.toggleButton);

        switchButton.setOnCheckedChangeListener(new
CompoundButton.OnCheckedChangeListener() {
            @Override
            public void onCheckedChanged(CompoundButton buttonView, boolean
isChecked) {
                updateSwitchState(isChecked);
            }
        });

        toggleButton.setOnCheckedChangeListener(new
CompoundButton.OnCheckedChangeListener() {
            @Override
            public void onCheckedChanged(CompoundButton buttonView, boolean
isChecked) {
                updateToggleState(isChecked);
            }
        });
    }

    private void updateSwitchState(boolean isChecked) {
        if (isChecked) {
            switchStateTextView.setText("Switch State: ON");
        } else {
            switchStateTextView.setText("Switch State: OFF");
        }
    }

    private void updateToggleState(boolean isChecked) {
        if (isChecked) {
            toggleStateTextView.setText("Toggle State: ON");
        } else {
            toggleStateTextView.setText("Toggle State: OFF");
        }
    }
}

```

QUE2=>list view of fruits

```

<?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:layout_width="match_parent"
    android:layout_height="match_parent"
    android:padding="16dp"
    tools:context=".MainActivity">

    <ListView
        android:id="@+id/listView"

```

```
        android:layout_width="match_parent"
        android:layout_height="match_parent"/>

</RelativeLayout>
```

```
package com.example.slip10_q2b;

import android.os.Bundle;
import android.widget.ArrayAdapter;
import android.widget.ListView;

import androidx.appcompat.app.AppCompatActivity;

import java.util.ArrayList;
import java.util.Arrays;
import java.util.List;

public class MainActivity extends AppCompatActivity {

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

        // Array of fruits
        String[] fruitsArray = {"Apple", "Banana", "Orange", "Grapes",
"Mango", "Strawberry"};

        // Convert array to list
        List<String> fruitsList = new
ArrayList<>(Arrays.asList(fruitsArray));

        // Initialize ArrayAdapter
        ArrayAdapter<String> adapter = new ArrayAdapter<>(this,
android.R.layout.simple_list_item_1, fruitsList);

        // Get reference to ListView
        ListView listView = findViewById(R.id.listView);

        // Set adapter to ListView
        listView.setAdapter(adapter);
    }
}
```

QUE2 =>fragments

SLIP 11:

QUE1=>change font size,color and family

```
<?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:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity">

    <Button
        android:id="@+id/font_size_button"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Change Font Size"
        android:layout_marginTop="16dp"
        android:layout_marginStart="16dp"
        android:onClick="changeFontSize"/>

    <Button
        android:id="@+id/font_color_button"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Change Font Color"
        android:layout_below="@id/font_size_button"
        android:layout_marginTop="16dp"
        android:layout_marginStart="16dp"
        android:onClick="changeFontColor"/>

    <Button
        android:id="@+id/font_family_button"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Change Font Family"
        android:layout_below="@id/font_color_button"
        android:layout_marginTop="16dp"
        android:layout_marginStart="16dp"
        android:onClick="changeFontFamily"/>

    <TextView
        android:id="@+id/display_text"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="HELLO WORLD !"
        android:textSize="18sp"
        android:textColor="@color/white"
        android:layout_below="@id/font_family_button"
        android:layout_marginTop="16dp"
        android:layout_marginStart="16dp"/>

</RelativeLayout>
```

```
package com.example.firstProgram;

import androidx.appcompat.app.AppCompatActivity;
import android.graphics.Color;
import android.graphics.Typeface;
import android.os.Bundle;
import android.view.View;
import android.widget.EditText;
import android.widget.TextView;
import java.util.Random;

public class MainActivity extends AppCompatActivity {

    //    EditText editText;
    //    TextView displayText;

    // Array of font families
    private static final String[] FONT_FAMILIES = {"sans-serif", "serif",
"monospace"};

    // Array of colors
    private static final int[] COLORS = {
        Color.RED, Color.GREEN, Color.BLUE, Color.YELLOW, Color.MAGENTA,
Color.CYAN
    };

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

        //        editText = findViewById(R.id.edit_text);
        //        displayText = findViewById(R.id.display_text);
    }

    public void changeFontSize(View view) {
        //        String text = editText.getText().toString();
        //        float size = displayText.getTextSize() /
getResources().getDisplayMetrics().scaledDensity;
        size += 2; // Increase font size by 2sp
        displayText.setTextSize(size);
    }

    public void changeFontColor(View view) {
        // Get a random color from the COLORS array
        Random random = new Random();
        int colorIndex = random.nextInt(COLORS.length);
        int color = COLORS[colorIndex];
        displayText.setTextColor(color);
    }
}
```

```

public void changeFontFamily(View view) {
    // Get a random font family from the FONT_FAMILIES array
    Random random = new Random();
    int fontFamilyIndex = random.nextInt(FONT_FAMILIES.length);
    String fontFamily = FONT_FAMILIES[fontFamilyIndex];
    Typeface typeface = Typeface.create(fontFamily, Typeface.NORMAL);
    displayText.setTextTypeface(typeface);
}
}

```

QUE2=> display student details on next activity

Activity_main.xml

```

<?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:layout_width="match_parent"
    android:layout_height="match_parent"
    android:padding="16dp"
    tools:context=".MainActivity">

    <EditText
        android:id="@+id/firstNameEditText"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:hint="First Name"
        android:layout_marginBottom="16dp"/>

    <EditText
        android:id="@+id/middleNameEditText"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:hint="Middle Name"
        android:layout_below="@id/firstNameEditText"
        android:layout_marginBottom="16dp"/>

    <EditText
        android:id="@+id/lastNameEditText"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:hint="Last Name"
        android:layout_below="@id/middleNameEditText"
        android:layout_marginBottom="16dp"/>

    <EditText
        android:id="@+id/dobEditText"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:hint="Date of Birth (DOB)"

```

```

        android:layout_below="@id/lastNameEditText"
        android:layout_marginBottom="16dp"/>

<EditText
    android:id="@+id/addressEditText"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:hint="Address"
    android:layout_below="@id/dobEditText"
    android:layout_marginBottom="16dp"/>

<EditText
    android:id="@+id/emailEditText"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:hint="Email ID"
    android:layout_below="@id/addressEditText"
    android:layout_marginBottom="16dp"/>

<Button
    android:id="@+id/submitButton"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Submit"
    android:layout_below="@id/emailEditText"
    android:layout_centerHorizontal="true"/>

</RelativeLayout>

```

Activity_display.xml

```

<?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:layout_width="match_parent"
    android:layout_height="match_parent"
    android:padding="16dp"
    tools:context=".DisplayActivity">

    <TextView
        android:id="@+id/detailsTextView"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Student Details"
        android:textSize="18sp"
        android:textStyle="bold"

```

```
        android:layout_centerInParent="true"/>
</RelativeLayout>
```

MainActivity.java

```
package com.example.slip11_q2a;

import android.content.Intent;
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 firstNameEditText, middleNameEditText, lastNameEditText;
    private EditText dobEditText, addressEditText, emailEditText;

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

        firstNameEditText = findViewById(R.id.firstNameEditText);
        middleNameEditText = findViewById(R.id.middleNameEditText);
        lastNameEditText = findViewById(R.id.lastNameEditText);
        dobEditText = findViewById(R.id.dobEditText);
        addressEditText = findViewById(R.id.addressEditText);
        emailEditText = findViewById(R.id.emailEditText);

        Button submitButton = findViewById(R.id.submitButton);
        submitButton.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                openSecondActivity();
            }
        });
    }

    private void openSecondActivity() {
        String firstName = firstNameEditText.getText().toString();
        String middleName = middleNameEditText.getText().toString();
        String lastName = lastNameEditText.getText().toString();
        String dob = dobEditText.getText().toString();
        String address = addressEditText.getText().toString();
        String email = emailEditText.getText().toString();

        Intent intent = new Intent(this, DisplayActivity.class);
```

```

        intent.putExtra("FIRST_NAME", firstName);
        intent.putExtra("MIDDLE_NAME", middleName);
        intent.putExtra("LAST_NAME", lastName);
        intent.putExtra("DOB", dob);
        intent.putExtra("ADDRESS", address);
        intent.putExtra("EMAIL", email);
        startActivity(intent);
    }
}

```

DisplayActivity.java

```

package com.example.slip11_q2a;

import android.content.Intent;
import android.os.Bundle;
import android.widget.TextView;

import androidx.appcompat.app.AppCompatActivity;

public class DisplayActivity extends AppCompatActivity {

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

        TextView detailsTextView = findViewById(R.id.detailsTextView);

        Intent intent = getIntent();
        String firstName = intent.getStringExtra("FIRST_NAME");
        String middleName = intent.getStringExtra("MIDDLE_NAME");
        String lastName = intent.getStringExtra("LAST_NAME");
        String dob = intent.getStringExtra("DOB");
        String address = intent.getStringExtra("ADDRESS");
        String email = intent.getStringExtra("EMAIL");

        String details = "First Name: " + firstName + "\n" +
            "Middle Name: " + middleName + "\n" +
            "Last Name: " + lastName + "\n" +
            "DOB: " + dob + "\n" +
            "Address: " + address + "\n" +
            "Email: " + email;

        detailsTextView.setText(details);
    }
}

```

QUE2=> insert contact layout

SLIP 12:

QUE1=>send hi message

Activity_main.xml

```
<?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:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity">

    <Button
```

```

        android:id="@+id/sendMessageButton"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Send Message"
        android:layout_centerInParent="true"/>
</RelativeLayout>

```

Display_message.xml

```

<?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:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".DisplayActivity">

    <TextView
        android:id="@+id/displayMessageTextView"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:textSize="24sp"
        android:layout_centerInParent="true"/>

</RelativeLayout>

```

MainActivity.java

```

package com.example.slip6_q1;

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

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 sendMessageButton = findViewById(R.id.sendMessageButton);
        sendMessageButton.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                sendMessage();
            }
        });
    }
}

```



```

    });
}

private void sendMessage() {
    Intent intent = new Intent(this, DisplayActivity.class);
    intent.putExtra("message", "Hello!");
    startActivity(intent);
}
}

```

DisplayActivity.java

```

package com.example.slip6_q1;

import android.content.Intent;
import android.os.Bundle;
import android.widget.TextView;

import androidx.appcompat.app.AppCompatActivity;

public class DisplayActivity extends AppCompatActivity {

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

        Intent intent = getIntent();
        String message = intent.getStringExtra("message");

        TextView textView = findViewById(R.id.displayMessageTextView);
        textView.setText(message);
    }
}

```

add following snippet in manifest.xml

```

<activity
    android:name=".DisplayActivity"
    android:exported="true">
</activity>

```

QUE2=>date and time picker

Activity_main.xml

```

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

```

```
xmlns:tools="http://schemas.android.com/tools" android:layout_width="match_parent"
android:layout_height="match_parent" android:paddingLeft="16dp"
android:paddingRight="16dp"
android:paddingTop="16dp"
android:paddingBottom="16dp"
tools:context=".MainActivity">
```

```
<EditText
    android:layout_width="200dp"
    android:layout_height="wrap_content"
    android:id="@+id/in_date"
    android:layout_marginTop="82dp"
    android:layout_alignParentTop="true"
    android:layout_alignParentLeft="true"
    android:layout_alignParentStart="true" />
```

```
<Button
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="SELECT DATE"
    android:id="@+id/btn_date"
    android:layout_alignBottom="@+id/in_date"
    android:layout_toRightOf="@+id/in_date"
    android:layout_toEndOf="@+id/in_date" />
```

```
<EditText
    android:layout_width="200dp"
    android:layout_height="wrap_content"
    android:id="@+id/in_time"
    android:layout_below="@+id/in_date"
    android:layout_alignParentLeft="true"
    android:layout_alignParentStart="true" />
```

```
<Button
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="SELECT TIME"
    android:id="@+id/btn_time"
    android:layout_below="@+id/btn_date"
    android:layout_alignLeft="@+id/btn_date"
    android:layout_alignStart="@+id/btn_date" />
```

```
</RelativeLayout>
```

MainActivity.java

```
package com.example.ass4_a3;
```

```

import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;
import android.view.View;
import android.app.DatePickerDialog;
import android.app.TimePickerDialog;

import android.os.Bundle;
import android.view.Menu;
import android.view.MenuItem;
import android.view.View;
import android.widget.Button;
import android.widget.DatePicker;
import android.widget.EditText;
import android.widget.TimePicker;
import java.util.Calendar;

public class MainActivity extends AppCompatActivity implements View.OnClickListener {
    Button btnDatePicker, btnTimePicker;
    EditText txtDate, txtTime;
    private int mYear, mMonth, mDay, mHour, mMinute;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        btnDatePicker=(Button)findViewById(R.id.btn_date);
        btnTimePicker=(Button)findViewById(R.id.btn_time);
        txtDate=(EditText)findViewById(R.id.in_date);
        txtTime=(EditText)findViewById(R.id.in_time);

        btnDatePicker.setOnClickListener(this);
        btnTimePicker.setOnClickListener(this);
    }
    @Override
    public void onClick(View v) {

        if (v == btnDatePicker) {

            // Get Current Date
            final Calendar c = Calendar.getInstance();
            mYear = c.get(Calendar.YEAR);
            mMonth = c.get(Calendar.MONTH);
            mDay = c.get(Calendar.DAY_OF_MONTH);
            DatePickerDialog datePickerDialog = new DatePickerDialog(this, new
DatePickerDialog.OnDateSetListener() {

                @Override

```

```

        public void onDateSet(DatePicker view, int year,
                               int monthOfYear, int dayOfMonth) {

            txtDate.setText(dayOfMonth + "-" + (monthOfYear + 1) + "-" + year);

        }
    }, mYear, mMonth, mDay);
    datePickerDialog.show();
}
if (v == btnTimePicker) {

    // Get Current Time
    final Calendar c = Calendar.getInstance();
    mHour = c.get(Calendar.HOUR_OF_DAY);
    mMinute = c.get(Calendar.MINUTE);

    // Launch Time Picker Dialog
    TimePickerDialog timePickerDialog = new TimePickerDialog(this,
        new TimePickerDialog.OnTimeSetListener() {

            @Override
            public void onTimeSet(TimePicker view, int hourOfDay,
                                   int minute) {

                txtTime.setText(hourOfDay + ":" + minute);
            }
        }, mHour, mMinute, false);
    timePickerDialog.show();
}
}
}

```

QUE2=>contact layout to hold multiple info

```

<?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="wrap_content"
    android:orientation="vertical"
    android:layout_gravity="center_vertical"
    android:padding="16dp">

    <ImageView
        android:id="@+id/contactPhoto"
        android:src="@drawable/profile"
        android:layout_width="48dp"

```

```

        android:layout_height="48dp"
        android:layout_marginEnd="16dp"/>

<LinearLayout
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:orientation="vertical">

    <EditText
        android:id="@+id/contactName"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:hint="Name"
        android:textColor="@color/white"
        android:textSize="18sp"
        android:textStyle="bold"/>

    <EditText
        android:id="@+id/contactNumber"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:hint="Contact Number"
        android:textColor="@color/white"
        android:textSize="16sp"/>

    <EditText
        android:id="@+id/contactEmail"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:hint="Email ID"
        android:textColor="@color/white"
        android:textSize="16sp"/>

</LinearLayout>
</LinearLayout>

```

```

package com.example.slip12_q2a;

import android.os.Bundle;

import androidx.activity.EdgeToEdge;
import androidx.appcompat.app.AppCompatActivity;
import androidx.core.graphics.Insets;
import androidx.core.view.ViewCompat;
import androidx.core.view.WindowInsetsCompat;

public class MainActivity extends AppCompatActivity {

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

```

```

EdgeToEdge.enable(this);
setContentView(R.layout.activity_main);

    }
}

```

SLIP 13:

QUE1=> scroll view buttons

```

<?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="wrap_content">

    <LinearLayout
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:orientation="vertical"
        android:gravity="center_horizontal">

        <Button
            android:layout_width="100dp"
            android:layout_height="wrap_content"
            android:text="Button 1"
            android:layout_margin="100dp"
            />

        <Button
            android:layout_width="100dp"
            android:layout_height="wrap_content"
            android:text="Button 2"
            android:layout_margin="100dp"
            />

        <Button
            android:layout_width="100dp"
            android:layout_height="wrap_content"
            android:text="Button 3"
            android:layout_margin="100dp"
            />

        <Button
            android:layout_width="100dp"
            android:layout_height="wrap_content"
            android:text="Button 4"
            android:layout_margin="100dp"
            />
    </LinearLayout>
</ScrollView>

```

```
        />

        <Button
            android:layout_width="100dp"
            android:layout_height="wrap_content"
            android:text="Button 5"
            android:layout_margin="100dp"
        />

        <Button
            android:layout_width="100dp"
            android:layout_height="wrap_content"
            android:text="Button 6"
            android:layout_margin="100dp"
        />

        <Button
            android:layout_width="100dp"
            android:layout_height="wrap_content"
            android:text="Button 7"
            android:layout_margin="100dp"
        />

        <Button
            android:layout_width="100dp"
            android:layout_height="wrap_content"
            android:text="Button 8"
            android:layout_margin="100dp"
        />

        <Button
            android:layout_width="100dp"
            android:layout_height="wrap_content"
            android:text="Button 9"
            android:layout_margin="100dp"
        />

        <Button
            android:layout_width="100dp"
            android:layout_height="wrap_content"
            android:text="Button 10"
            android:layout_margin="100dp"
        />

    </LinearLayout>

</ScrollView>
```

```
package com.example.slip13_q1;

import android.os.Bundle;
```

```

import androidx.activity.EdgeToEdge;
import androidx.appcompat.app.AppCompatActivity;
import androidx.core.graphics.Insets;
import androidx.core.view.ViewCompat;
import androidx.core.view.WindowInsetsCompat;

public class MainActivity extends AppCompatActivity {

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        EdgeToEdge.enable(this);
        setContentView(R.layout.activity_main);
    }
}

```

QUE2=> google map

QUE2=> create table

SLIP14:

QUE1=>lifecycle using log

```

package com.example.slip14_q1;

import android.os.Bundle;
import android.util.Log;

import androidx.appcompat.app.AppCompatActivity;

public class MainActivity extends AppCompatActivity {

    private static final String TAG = "MainActivity";

    @Override

```



```

protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_main);
    Log.d(TAG, "onCreate: Activity created");
}

@Override
protected void onStart() {
    super.onStart();
    Log.d(TAG, "onStart: Activity started");
}

@Override
protected void onResume() {
    super.onResume();
    Log.d(TAG, "onResume: Activity resumed");
}

@Override
protected void onPause() {
    super.onPause();
    Log.d(TAG, "onPause: Activity paused");
}

@Override
protected void onStop() {
    super.onStop();
    Log.d(TAG, "onStop: Activity stopped");
}

@Override
protected void onDestroy() {
    super.onDestroy();
    Log.d(TAG, "onDestroy: Activity destroyed");
}

@Override
protected void onRestart() {
    super.onRestart();
    Log.d(TAG, "onRestart: Activity restarted");
}
}

```

QUE2=>send email

```

<?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:layout_width="match_parent"
    android:layout_height="match_parent"

```

```
tools:context=".MainActivity">

<EditText
    android:id="@+id/editText1"
    android:layout_width="332dp"
    android:layout_height="wrap_content"
    android:layout_alignParentTop="true"
    android:layout_alignParentRight="true"
    android:layout_marginTop="18dp"
    android:layout_marginRight="22dp"
    tools:ignore="TouchTargetSizeCheck,SpeakableTextPresentCheck" />

<EditText
    android:id="@+id/editText2"
    android:layout_width="302dp"
    android:layout_height="wrap_content"
    android:layout_below="@+id/editText1"
    android:layout_alignLeft="@+id/editText1"
    android:layout_marginLeft="33dp"
    android:layout_marginTop="19dp"
    tools:ignore="TouchTargetSizeCheck,SpeakableTextPresentCheck" />

<EditText
    android:id="@+id/editText3"
    android:layout_width="302dp"
    android:layout_height="wrap_content"
    android:layout_below="@+id/editText2"
    android:layout_alignLeft="@+id/editText2"
    android:layout_marginTop="30dp"
    tools:ignore="TouchTargetSizeCheck,SpeakableTextPresentCheck" />

<TextView
    android:id="@+id/textView1"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_alignBaseline="@+id/editText1"
    android:layout_alignBottom="@+id/editText1"
    android:layout_alignParentLeft="true"
    android:layout_marginLeft="0dp"
    android:layout_marginBottom="-6dp"
    android:text="Send To:"
    android:textColor="#0F9D58" />

<TextView
    android:id="@+id/textView2"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_alignBaseline="@+id/editText2"
    android:layout_alignBottom="@+id/editText2"
    android:layout_alignParentLeft="true"
    android:text="Email Subject:"
    android:textColor="#0F9D58"/>
```

```

<TextView
    android:id="@+id/textView3"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_alignBaseline="@+id/editText3"
    android:layout_alignBottom="@+id/editText3"
    android:text="Email Body:"
    android:textColor="#0F9D58"/>

<Button
    android:id="@+id/button"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_below="@+id/editText3"
    android:layout_alignLeft="@+id/editText3"
    android:layout_marginLeft="76dp"
    android:layout_marginTop="20dp"
    android:text="Send Email!!! " />
</RelativeLayout>

```

```

package com.example.email;

import android.content.Intent;
import android.os.Bundle;
import android.widget.Button;
import android.widget.EditText;

import androidx.activity.EdgeToEdge;
import androidx.appcompat.app.AppCompatActivity;
import androidx.core.graphics.Insets;
import androidx.core.view.ViewCompat;
import androidx.core.view.WindowInsetsCompat;

public class MainActivity extends AppCompatActivity {
    Button button;

    EditText sendto,subject,body;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        EdgeToEdge.enable(this);
        setContentView(R.layout.activity_main);
        // ViewCompat.setOnApplyWindowInsetsListener(findViewById(R.id.main),
        (v, insets) -> {
            // Insets systemBars =
            insets.getInsets(WindowInsetsCompat.Type.systemBars());
            // v.setPadding(systemBars.left, systemBars.top, systemBars.right,
            systemBars.bottom);
            //return insets;
            //});
            sendto=findViewById(R.id.editText1);

```

```

        subject=findViewById(R.id.editText2);
        body=findViewById(R.id.editText3);
        button=findViewById(R.id.button);

        button.setOnClickListener(view -> {
            String emailsend= sendto.getText().toString();
            String emailsubject= subject.getText().toString();
            String emailbody= body.getText().toString();

            Intent intent= new Intent(Intent.ACTION_SEND);
            intent.putExtra(Intent.EXTRA_TEXT,new String[]{emailsend});
            intent.putExtra(Intent.EXTRA_SUBJECT,emailsubject);
            intent.putExtra(Intent.EXTRA_TEXT,emailbody);

            intent.setType("message/rfc822");
            startActivity(Intent.createChooser(intent,"Chioose an Email
Client : "));
        });
    }
}

```

SLIP15:

QUE1=> add a border

BORDER.XML

```

<?xml version="1.0" encoding="utf-8"?>
<shape xmlns:android="http://schemas.android.com/apk/res/android">
<stroke android:width="18dp" android:color="#8E0634"/>
    <corners android:radius="40dp"/>
    <solid android:color="#5C7CA3"/>
</shape>

```

Activity_main.xml

```

<?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"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:background="@drawable/border"
    tools:context=".MainActivity">

```

```

<TextView
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Hello World!"
    android:textSize="45dp"
    android:textStyle="bold"
    android:textColor="@color/black"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent" />

</androidx.constraintlayout.widget.ConstraintLayout>

```

QUE2=>employee details

Activity_main.xml

```

<?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:layout_width="match_parent"
    android:layout_height="match_parent"
    android:padding="16dp"
    tools:context=".MainActivity">

    <EditText
        android:id="@+id/firstNameEditText"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:hint="First Name"
        android:layout_marginBottom="16dp"/>

    <EditText
        android:id="@+id/middleNameEditText"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:hint="Middle Name"
        android:layout_below="@id/firstNameEditText"
        android:layout_marginBottom="16dp"/>

    <EditText
        android:id="@+id/lastNameEditText"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:hint="Last Name"
        android:layout_below="@id/middleNameEditText"
        android:layout_marginBottom="16dp"/>

    <EditText
        android:id="@+id/dobEditText"

```

```

        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:hint="Date of Birth (DOB)"
        android:layout_below="@id/lastNameEditText"
        android:layout_marginBottom="16dp"/>

<EditText
    android:id="@+id/addressEditText"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:hint="Address"
    android:layout_below="@id/dobEditText"
    android:layout_marginBottom="16dp"/>

<EditText
    android:id="@+id/emailEditText"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:hint="Email ID"
    android:layout_below="@id/addressEditText"
    android:layout_marginBottom="16dp"/>

<Button
    android:id="@+id/submitButton"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Submit"
    android:layout_below="@id/emailEditText"
    android:layout_centerHorizontal="true"/>

</RelativeLayout>

```

Activity_display.xml

```

<?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:layout_width="match_parent"
    android:layout_height="match_parent"
    android:padding="16dp"
    tools:context=".DisplayActivity">

    <TextView
        android:id="@+id/detailsTextView"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Student Details"
        android:textSize="18sp"
        android:textStyle="bold"
        android:layout_centerInParent="true"/>

</RelativeLayout>

```

MainActivity.java

```
package com.example.slip11_q2a;

import android.content.Intent;
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 firstNameEditText, middleNameEditText, lastNameEditText;
    private EditText dobEditText, addressEditText, emailEditText;

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

        firstNameEditText = findViewById(R.id.firstNameEditText);
        middleNameEditText = findViewById(R.id.middleNameEditText);
        lastNameEditText = findViewById(R.id.lastNameEditText);
        dobEditText = findViewById(R.id.dobEditText);
        addressEditText = findViewById(R.id.addressEditText);
        emailEditText = findViewById(R.id.emailEditText);

        Button submitButton = findViewById(R.id.submitButton);
        submitButton.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                openSecondActivity();
            }
        });
    }

    private void openSecondActivity() {
        String firstName = firstNameEditText.getText().toString();
        String middleName = middleNameEditText.getText().toString();
        String lastName = lastNameEditText.getText().toString();
        String dob = dobEditText.getText().toString();
        String address = addressEditText.getText().toString();
        String email = emailEditText.getText().toString();

        Intent intent = new Intent(this, DisplayActivity.class);
        intent.putExtra("FIRST_NAME", firstName);
        intent.putExtra("MIDDLE_NAME", middleName);
        intent.putExtra("LAST_NAME", lastName);
        intent.putExtra("DOB", dob);
        intent.putExtra("ADDRESS", address);
    }
}
```

```

        intent.putExtra("EMAIL", email);
        startActivity(intent);
    }
}

DisplayActivity.java
package com.example.slip11_q2a;

import android.content.Intent;
import android.os.Bundle;
import android.widget.TextView;

import androidx.appcompat.app.AppCompatActivity;

public class DisplayActivity extends AppCompatActivity {

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

        TextView detailsTextView = findViewById(R.id.detailsTextView);

        Intent intent = getIntent();
        String firstName = intent.getStringExtra("FIRST_NAME");
        String middleName = intent.getStringExtra("MIDDLE_NAME");
        String lastName = intent.getStringExtra("LAST_NAME");
        String dob = intent.getStringExtra("DOB");
        String address = intent.getStringExtra("ADDRESS");
        String email = intent.getStringExtra("EMAIL");

        String details = "First Name: " + firstName + "\n" +
            "Middle Name: " + middleName + "\n" +
            "Last Name: " + lastName + "\n" +
            "DOB: " + dob + "\n" +
            "Address: " + address + "\n" +
            "Email: " + email;

        detailsTextView.setText(details);
    }
}

```

QUE2=>login without database

SLIP 16:

QUE1=> student details and display

```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:padding="16dp">

    <EditText
        android:id="@+id/nameEditText"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:hint="Name"
        android:layout_marginBottom="16dp"/>

    <EditText
        android:id="@+id/surnameEditText"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:hint="Surname"
        android:layout_below="@id/nameEditText"
        android:layout_marginBottom="16dp"/>

    <EditText
        android:id="@+id/classEditText"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:hint="Class"
        android:layout_below="@id/surnameEditText"
        android:layout_marginBottom="16dp"/>

    <EditText
        android:id="@+id/genderEditText"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:hint="Gender"
        android:layout_below="@id/classEditText"
        android:layout_marginBottom="16dp"/>

    <EditText
        android:id="@+id/hobbiesEditText"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:hint="Hobbies"
        android:layout_below="@id/genderEditText"
        android:layout_marginBottom="16dp"/>
```

```

<EditText
    android:id="@+id/marksEditText"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:hint="Marks"
    android:layout_below="@id/hobbiesEditText"
    android:layout_marginBottom="16dp"/>

<Button
    android:id="@+id/submitBtn"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Submit"
    android:layout_below="@id/marksEditText"
    android:layout_centerHorizontal="true"/>
</RelativeLayout>

```

```

<?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">

    <TableLayout
        android:id="@+id/detailsTable"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:padding="16dp">

        </TableLayout>
</ScrollView>

```

```

package com.example.slip16_q1;
import android.content.Intent;
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 {

    EditText nameEditText, surnameEditText, classEditText, genderEditText,
    hobbiesEditText, marksEditText;

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

        nameEditText = findViewById(R.id.nameEditText);

```

```

        surnameEditText = findViewById(R.id.surnameEditText);
        classEditText = findViewById(R.id.classEditText);
        genderEditText = findViewById(R.id.genderEditText);
        hobbiesEditText = findViewById(R.id.hobbiesEditText);
        marksEditText = findViewById(R.id.marksEditText);

        Button submitBtn = findViewById(R.id.submitBtn);
        submitBtn.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                String name = nameEditText.getText().toString();
                String surname = surnameEditText.getText().toString();
                String studentClass = classEditText.getText().toString();
                String gender = genderEditText.getText().toString();
                String hobbies = hobbiesEditText.getText().toString();
                String marks = marksEditText.getText().toString();

                Intent intent = new Intent(MainActivity.this,
DisplayActivity.class);
                intent.putExtra("NAME", name);
                intent.putExtra("SURNAME", surname);
                intent.putExtra("CLASS", studentClass);
                intent.putExtra("GENDER", gender);
                intent.putExtra("HOBBIES", hobbies);
                intent.putExtra("MARKS", marks);
                startActivity(intent);
            }
        });
    }
}

```

```

package com.example.slip16_q1;

import android.content.Intent;
import android.os.Bundle;
import android.widget.TableLayout;
import android.widget.TableRow;
import android.widget.TextView;

import androidx.appcompat.app.AppCompatActivity;

public class DisplayActivity extends AppCompatActivity {

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

        TableLayout detailsTable = findViewById(R.id.detailsTable);

        Intent intent = getIntent();
        String name = intent.getStringExtra("NAME");

```

```

String surname = intent.getStringExtra("SURNAME");
String studentClass = intent.getStringExtra("CLASS");
String gender = intent.getStringExtra("GENDER");
String hobbies = intent.getStringExtra("HOBBIES");
String marks = intent.getStringExtra("MARKS");

// Create table row for each detail
addRowToTable(detailsTable, "Name", name);
addRowToTable(detailsTable, "Surname", surname);
addRowToTable(detailsTable, "Class", studentClass);
addRowToTable(detailsTable, "Gender", gender);
addRowToTable(detailsTable, "Hobbies", hobbies);
addRowToTable(detailsTable, "Marks", marks);
}

private void addRowToTable(TableLayout table, String label, String value)
{
    TableRow row = new TableRow(this);
    TextView labelTextView = new TextView(this);
    labelTextView.setText(label);
    TextView valueTextView = new TextView(this);
    valueTextView.setText(value);
    row.addView(labelTextView);
    row.addView(valueTextView);
    table.addView(row);
}
}

```

QUE2=>time picker

```

<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:padding="16dp">

    <TimePicker
        android:id="@+id/timePicker"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_centerHorizontal="true"
        android:layout_marginBottom="16dp"/>

    <Button
        android:id="@+id/selectTimeBtn"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Select Time"
        android:layout_below="@id/timePicker"
        android:layout_centerHorizontal="true"
        android:layout_marginTop="16dp"/>

    <TextView
        android:id="@+id/selectedTimeTextView"

```

```
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Selected Time: "
        android:textSize="18sp"
        android:textStyle="bold"
        android:layout_below="@id/selectTimeBtn"
        android:layout_centerHorizontal="true"
        android:layout_marginTop="16dp"/>
```

```
</RelativeLayout>
```

```
package com.example.slip16_q2a;

import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.TextView;
import android.widget.TimePicker;

import androidx.appcompat.app.AppCompatActivity;

public class MainActivity extends AppCompatActivity {

    TimePicker timePicker;
    TextView selectedTimeTextView;
    Button selectTimeBtn;

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

        timePicker = findViewById(R.id.timePicker);
        selectedTimeTextView = findViewById(R.id.selectedTimeTextView);
        selectTimeBtn = findViewById(R.id.selectTimeBtn);

        selectTimeBtn.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                int hour = timePicker.getCurrentHour();
                int minute = timePicker.getCurrentMinute();

                String selectedTime = "Selected Time: " + hour + ":" +
minute;
                selectedTimeTextView.setText(selectedTime);
            }
        });
    }
}
```

QUE2=>calculator

```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:padding="16dp">

    <TextView
        android:id="@+id/resultTextView"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_marginBottom="16dp"
        android:text="0"
        android:textSize="24sp"
        android:textAlignment="center"/>

    <GridLayout
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:columnCount="4"
        android:rowCount="5"
        android:layout_below="@id/resultTextView"
        android:layout_marginTop="16dp">

        <!-- Buttons for numbers -->
        <Button
            android:id="@+id/button1"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:text="1"
            android:onClick="onNumberClick"/>

        <Button
            android:id="@+id/button2"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:text="2"
            android:onClick="onNumberClick"/>

        <Button
            android:id="@+id/button3"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:text="3"
            android:onClick="onNumberClick"/>

        <Button
            android:id="@+id/buttonPlus"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:text="+"
            android:onClick="onOperatorClick"/>
    </GridLayout>
</RelativeLayout>
```

```
<!-- Add buttons for numbers 4-9 and operators - * / similarly -->
```

```
<Button
    android:id="@+id/button4"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="4"
    android:onClick="onNumberClick"/>
```

```
<Button
    android:id="@+id/button5"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="5"
    android:onClick="onNumberClick"/>
```

```
<Button
    android:id="@+id/button6"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="6"
    android:onClick="onNumberClick"/>
```

```
<Button
    android:id="@+id/buttonMinus"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="-"
    android:onClick="onOperatorClick"/>
```

```
<Button
    android:id="@+id/button7"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="7"
    android:onClick="onNumberClick"/>
```

```
<Button
    android:id="@+id/button8"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="8"
    android:onClick="onNumberClick"/>
```

```
<Button
    android:id="@+id/button9"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="9"
    android:onClick="onNumberClick"/>
```

```
<Button
```

```

        android:id="@+id/buttonMultiply"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="*"
        android:onClick="onOperatorClick"/>

<Button
    android:id="@+id/button0"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="0"
    android:layout_columnSpan="2"
    android:onClick="onNumberClick"/>

<Button
    android:id="@+id/buttonDot"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="."
    android:onClick="onNumberClick"/>

<Button
    android:id="@+id/buttonDivide"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="/"
    android:onClick="onOperatorClick"/>

<Button
    android:id="@+id/buttonEquals"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="="
    android:onClick="onEqualsClick"
    android:layout_columnSpan="2"/>
</GridLayout>
</RelativeLayout>

```

```

package com.example.slip16_q2b;

import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.TextView;

import androidx.appcompat.app.AppCompatActivity;

public class MainActivity extends AppCompatActivity {

    TextView resultTextView;
    String operand1 = "";

```



```

String operator = "";
boolean isNewCalculation = true;

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

    resultTextView = findViewById(R.id.resultTextView);
}

public void onNumberClick(View view) {
    if (isNewCalculation) {
        resultTextView.setText("");
        isNewCalculation = false;
    }

    String number = ((Button) view).getText().toString();
    resultTextView.append(number);
}

public void onOperatorClick(View view) {
    operand1 = resultTextView.getText().toString();
    operator = ((Button) view).getText().toString();
    isNewCalculation = true;
}

public void onEqualsClick(View view) {
    String operand2 = resultTextView.getText().toString();
    double result = calculateResult(Double.parseDouble(operand1),
Double.parseDouble(operand2), operator);
    resultTextView.setText(String.valueOf(result));
    isNewCalculation = true;
}

private double calculateResult(double operand1, double operand2, String
operator) {
    switch (operator) {
        case "+":
            return operand1 + operand2;
        case "-":
            return operand1 - operand2;
        case "*":
            return operand1 * operand2;
        case "/":
            if (operand2 == 0) {
                return Double.NaN; // Indicate division by zero
            }
            return operand1 / operand2;
        default:
            return Double.NaN;
    }
}

```

```
}  
}
```

SLIP17:

QUE1=>phone call

QUE2=>spinner

```
<?xml version="1.0" encoding="utf-8"?>  
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"  
    android:layout_width="match_parent"  
    android:layout_height="match_parent"  
    android:padding="16dp">  
  
    <Spinner  
        android:id="@+id/spinner"  
        android:layout_width="match_parent"  
        android:layout_height="wrap_content"  
        android:layout_marginBottom="16dp"/>  
  
    <TextView  
        android:id="@+id/selectedItemTextView"  
        android:layout_width="wrap_content"  
        android:layout_height="wrap_content"  
        android:text="Selected Item: "  
        android:textSize="18sp"  
        android:textStyle="bold"  
        android:layout_below="@id/spinner"  
        android:layout_centerHorizontal="true"  
        android:layout_marginTop="16dp"/>  
  
</RelativeLayout>
```

```
package com.example.slip17_q2a;  
  
import android.os.Bundle;  
import android.view.View;  
import android.widget.AdapterView;  
import android.widget.ArrayAdapter;  
import android.widget.Spinner;  
import android.widget.TextView;  
  
import androidx.appcompat.app.AppCompatActivity;
```

```

import java.util.ArrayList;
import java.util.List;

public class MainActivity extends AppCompatActivity {

    private Spinner spinner;
    private TextView selectedItemTextView;

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

        spinner = findViewById(R.id.spinner);
        selectedItemTextView = findViewById(R.id.selectedItemTextView);

        // Create a list of items for the spinner
        List<String> items = new ArrayList<>();
        items.add("Item 1");
        items.add("Item 2");
        items.add("Item 3");
        items.add("Item 4");
        items.add("Item 5");

        // Create an ArrayAdapter using the string array and a default
spinner layout
        ArrayAdapter<String> adapter = new ArrayAdapter<>(this,
android.R.layout.simple_spinner_item, items);

        // Specify the layout to use when the list of choices appears
adapter.setDropDownViewResource(android.R.layout.simple_spinner_dropdown_item
);

        // Apply the adapter to the spinner
spinner.setAdapter(adapter);

        // Set an item selected listener for the spinner
spinner.setOnItemSelectedListener(new
AdapterView.OnItemSelectedListener() {
    @Override
    public void onItemSelected(AdapterView<?> parent, View view, int
position, long id) {
        // Display the selected item in the TextView
        String selectedItem =
parent.getItemAtPosition(position).toString();
        selectedItemTextView.setText("Selected Item: " +
selectedItem);
    }

    @Override
    public void onNothingSelected(AdapterView<?> parent) {
        // Do nothing
    }
}

```

```

        }
    });
}
}

```

QUE2=>context menu to calculate factorial

SLIP 18:

QUE1=>alert dialog box

```

<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:padding="16dp">

    <Button
        android:id="@+id/showAlertDialogButton"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Show Alert Dialog"
        android:layout_centerInParent="true"/>

</RelativeLayout>

```

```

package com.example.slip18_q1;

import android.os.Bundle;
import android.view.View;
import android.widget.Button;

import androidx.appcompat.app.AlertDialog;
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 showAlertDialogButton =

```

```

findViewById(R.id.showAlertDialogButton);
    showAlertDialogButton.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View v) {
            showAlertDialog();
        }
    });
}

private void showAlertDialog() {
    AlertDialog.Builder builder = new AlertDialog.Builder(this);
    builder.setTitle("Alert Dialog");
    builder.setMessage("This is a sample alert dialog.");
    builder.setPositiveButton("OK", null);
    AlertDialog dialog = builder.create();
    dialog.show();
}
}

```

QUE2=>notification

QUE2=>calculate power and avg using context menu

SLIP19:

QUE1=>on/off toggle button

```

<RelativeLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:padding="16dp"
    android:background="@color/white"
    tools:context=".MainActivity">

    <ToggleButton
        android:id="@+id/toggleButton"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_centerHorizontal="true"
        android:layout_centerVertical="true"

```

```

        android:onClick="onToggleClick"
    />
<TextView
    android:id="@+id/textView"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginBottom="100dp"
    android:layout_centerVertical="true"
    android:layout_centerHorizontal="true"
    android:layout_above="@+id/toggleButton"
    android:textStyle="bold"
    android:textColor="@color/black"/>
</RelativeLayout>

```

```
package com.example.ass4_a4;
```

```

import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;
import android.view.View;
import android.widget.TextView;
import android.widget.ToggleButton;

```

```

public class MainActivity
    extends AppCompatActivity {

    ToggleButton togglebutton;
    TextView textview;
    @Override
    protected void onCreate(
        Bundle savedInstanceState)
    {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);

        togglebutton
            = (ToggleButton)findViewById(
                R.id.toggleButton);

        textview
            = (TextView)findViewById(
                R.id.textView);
    }

    public void onToggleClick(View view)
    {
        if (togglebutton.isChecked()) {
            textview.setText("Toggle is ON");
        }
    }
}

```

```

        else {
            textView.setText("Toggle is OFF");
        }
    }
}

```

QUE2=>sms manager

```

<?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:layout_width="match_parent"
    android:layout_height="match_parent"
    android:padding="16dp"
    tools:context=".MainActivity">

    <EditText
        android:id="@+id/phoneNumberEditText"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:hint="Phone Number"
        android:inputType="phone"
        android:padding="12dp"
        android:textSize="16sp"
        android:layout_marginBottom="16dp" />

    <!--          android:background="@drawable/edit_text_background"-->

    <EditText
        android:id="@+id/messageEditText"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_below="@id/phoneNumberEditText"
        android:hint="Message"
        android:inputType="textMultiLine"
        android:minLines="3"
        android:maxLines="5"
        android:padding="12dp"
        android:textSize="16sp"
        android:layout_marginBottom="16dp" />

    <!--          android:background="@drawable/edit_text_background"-->

    <Button
        android:id="@+id/sendButton"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_below="@id/messageEditText"
        android:text="Send"
        android:textSize="18sp"
        android:textColor="#ffffff"
        android:padding="16dp" />

```

```

        <!--          android:background="@drawable/button_background"-->
    </RelativeLayout>

```

```

package com.example.smsmanager;

import android.Manifest;
import android.content.pm.PackageManager;
import android.os.Bundle;
import android.telephony.SmsManager;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.Toast;
import androidx.appcompat.app.AppCompatActivity;
import androidx.core.app.ActivityCompat;
import androidx.core.content.ContextCompat;

public class MainActivity extends AppCompatActivity {

    private static final int PERMISSION_REQUEST_SEND_SMS = 1;

    EditText phoneNumberEditText, messageEditText;
    Button sendButton;

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

        phoneNumberEditText = findViewById(R.id.phoneNumberEditText);
        messageEditText = findViewById(R.id.messageEditText);
        sendButton = findViewById(R.id.sendButton);

        sendButton.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                String phoneNumber =
phoneNumberEditText.getText().toString();
                String message = messageEditText.getText().toString();
                if (!phoneNumber.isEmpty() && !message.isEmpty()) {
                    if (checkPermission(Manifest.permission.SEND_SMS)) {
                        sendSMS(phoneNumber, message);
                    } else {
                        ActivityCompat.requestPermissions(MainActivity.this,
                            new String[]{Manifest.permission.SEND_SMS},
                                PERMISSION_REQUEST_SEND_SMS);
                    }
                } else {
                    Toast.makeText(MainActivity.this, "Please enter phone
number and message", Toast.LENGTH_SHORT).show();

```



```

    }
    });
}

private boolean checkPermission(String permission) {
    return ContextCompat.checkSelfPermission(this, permission) ==
PackageManager.PERMISSION_GRANTED;
}

private void sendSMS(String phoneNumber, String message) {
    try {
        SmsManager smsManager = SmsManager.getDefault();
        smsManager.sendTextMessage(phoneNumber, null, message, null,
null);
        Toast.makeText(getApplicationContext(), "SMS sent",
Toast.LENGTH_SHORT).show();
    } catch (Exception e) {
        Toast.makeText(getApplicationContext(), "SMS failed to send",
Toast.LENGTH_SHORT).show();
        e.printStackTrace();
    }
}

@Override
public void onRequestPermissionsResult(int requestCode, String[]
permissions, int[] grantResults) {
    super.onRequestPermissionsResult(requestCode, permissions,
grantResults);
    if (requestCode == PERMISSION_REQUEST_SEND_SMS) {
        if (grantResults.length > 0 && grantResults[0] ==
PackageManager.PERMISSION_GRANTED) {
            String phoneNumber =
phoneNumberEditText.getText().toString();
            String message = messageEditText.getText().toString();
            sendSMS(phoneNumber, message);
        } else {
            Toast.makeText(this, "Permission denied. Cannot send SMS.",
Toast.LENGTH_SHORT).show();
        }
    }
}
}

```

```

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

```

QUE 2=> TABLE LAYOUT

SLIP 20:

QUE1=>change image on screen

```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:padding="16dp">

    <ImageView
        android:id="@+id/imageView"
        android:layout_width="250dp"
        android:layout_height="250dp"
        android:scaleType="centerCrop"
        android:src="@drawable/buspass" />

    <Button
        android:id="@+id/changeImageButton"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Change Image"
        android:layout_centerInParent="true"
        android:layout_marginTop="16dp" />

</RelativeLayout>
```

```
package com.example.slip20_q1;

import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.ImageView;

import androidx.appcompat.app.AppCompatActivity;

public class MainActivity extends AppCompatActivity {

    private ImageView imageView;
    private int currentIndex = 1;
    private static final int[] IMAGE_RESOURCES = {R.drawable.calculator,
R.drawable.portfolio, R.drawable.profile};

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

```

        imageView = findViewById(R.id.imageView);
        Button changeImageButton = findViewById(R.id.changeImageButton);

        changeImageButton.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                // Change the image when the button is clicked
                currentIndex = (currentIndex + 1) %
IMAGE_RESOURCES.length;

imageView.setImageResource(IMAGE_RESOURCES[currentIndex]);
            }
        });
    }
}

```

QUE2=>list view to display list of country

```

<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:padding="16dp">

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

</RelativeLayout>

```

```

package com.example.slip20_q2b;

import android.os.Bundle;
import android.widget.ArrayAdapter;
import android.widget.ListView;

import androidx.appcompat.app.AppCompatActivity;

public class MainActivity extends AppCompatActivity {

    private ListView countryListView;
    private String[] countries = {"USA", "Canada", "United Kingdom",
"Australia", "Germany", "France", "Japan", "India", "Brazil", "South
Africa"};

    @Override
    protected void onCreate(Bundle savedInstanceState) {

```

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

countryListView = findViewById(R.id.countryListView);

// Create ArrayAdapter to populate the ListView with country names
ArrayAdapter<String> adapter = new ArrayAdapter<>(this,
android.R.layout.simple_list_item_1, countries);

// Set the ArrayAdapter to the ListView
countryListView.setAdapter(adapter);
    }
}
```

QUE2=> MENUS TYPE