Q1] Create an android application to demonstrate the working of implicit intent. Use uri parsing.

Activity_main.xml:
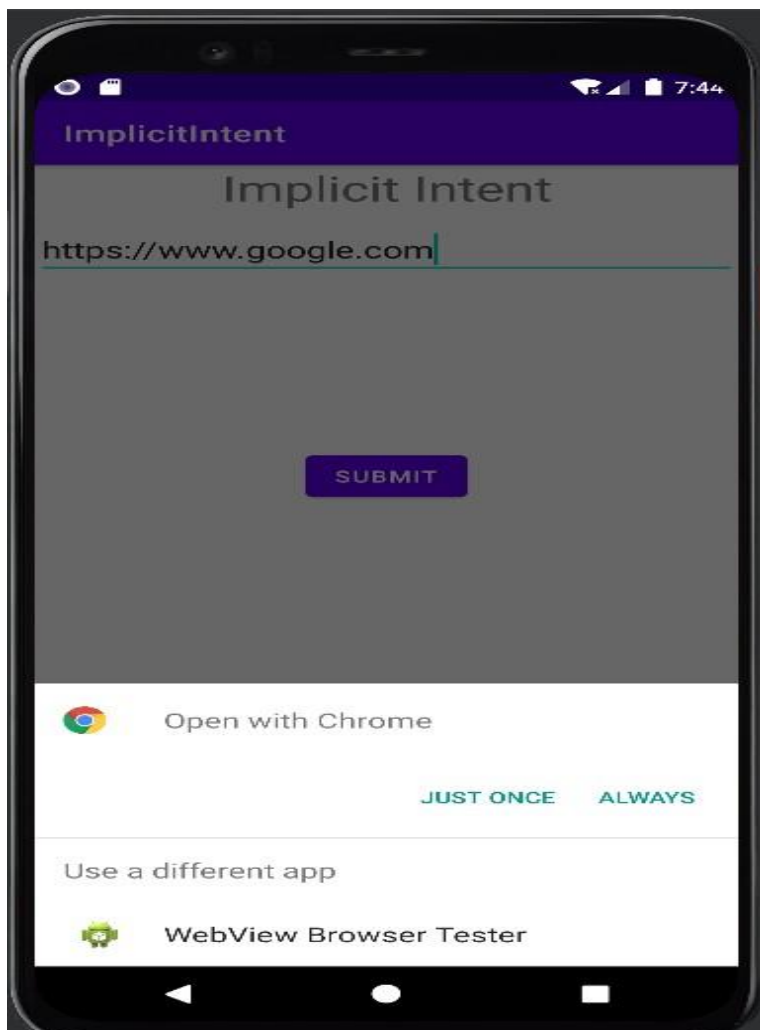
```xml
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity"
    android:orientation="vertical">
    <TextView
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:text="Implicit Intent"
        android:textSize="30dp"
        android:textAlignment="center"
        android:paddingBottom="10dp"/>
    <EditText
        android:id="@+id/ed1"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:hint="Enter the url"
        android:textSize="20dp"/>
    <Button
        android:id="@+id/btn1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Submit"
        android:layout_gravity="center"
        android:layout_marginTop="150dp"/>

</LinearLayout>
```

Mainactivity.java:

```java
package com.example.implicitintent;
import androidx.appcompat.app.AppCompatActivity;
import android.content.Intent;
import  android.net.Uri;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
public class MainActivity extends AppCompatActivity {
    EditText ed1;
    Button btn1;
```

1

```
 @Override
protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_main);
    ed1=findViewById(R.id.ed1);
    btn1=findViewById(R.id.btn1);
    btn1.setOnClickListener(new View.OnClickListener() {
       @Override
       public void onClick(View view) {
          String url=ed1.getText().toString();
          Intent intent=new Intent(Intent.ACTION_VIEW,Uri.parse(url));
          startActivity(intent);
       }
    });
   }
}
```

Output:

Q2] Create an android application to demonstrate the working of implicit intent. Use Phone Calling.

Activity_main.xml:

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

    <EditText
        android:id="@+id/phoneNumberEditText"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:hint="Enter Phone Number"
        android:layout_marginTop="32dp"
        android:layout_centerHorizontal="true" />

    <Button
        android:id="@+id/callButton"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Make Phone Call"
        android:layout_below="@id/phoneNumberEditText"
        android:layout_centerHorizontal="true"
        android:layout_marginTop="16dp" />
</RelativeLayout>
```

Mainactivity.java:

```java
package com.example.callprogram;

import android.Manifest;
import android.content.Intent;
import android.content.pm.PackageManager;
import android.net.Uri;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import androidx.annotation.NonNull;
import androidx.appcompat.app.AppCompatActivity;
import androidx.core.app.ActivityCompat;
import androidx.core.content.ContextCompat;
```

3

```java
import com.example.callprogram.R;

public class MainActivity extends AppCompatActivity {

    private static final int REQUEST_CALL_PERMISSION = 1;
    private EditText phoneNumberEditText;
    private Button callButton;

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

        phoneNumberEditText = findViewById(R.id.phoneNumberEditText);
        callButton = findViewById(R.id.callButton);

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

    private void makePhoneCall() {
        String phoneNumber = phoneNumberEditText.getText().toString();

        if (!phoneNumber.isEmpty()) {
            String dial = "tel:" + phoneNumber;

            if (ContextCompat.checkSelfPermission(this, Manifest.permission.CALL_PHONE) !=
PackageManager.PERMISSION_GRANTED) {
                ActivityCompat.requestPermissions(this, new
String[]{Manifest.permission.CALL_PHONE}, REQUEST_CALL_PERMISSION);
            } else {
                Intent callIntent = new Intent(Intent.ACTION_CALL);
                callIntent.setData(Uri.parse(dial));
                startActivity(callIntent);
            }
        }
    }
}
```
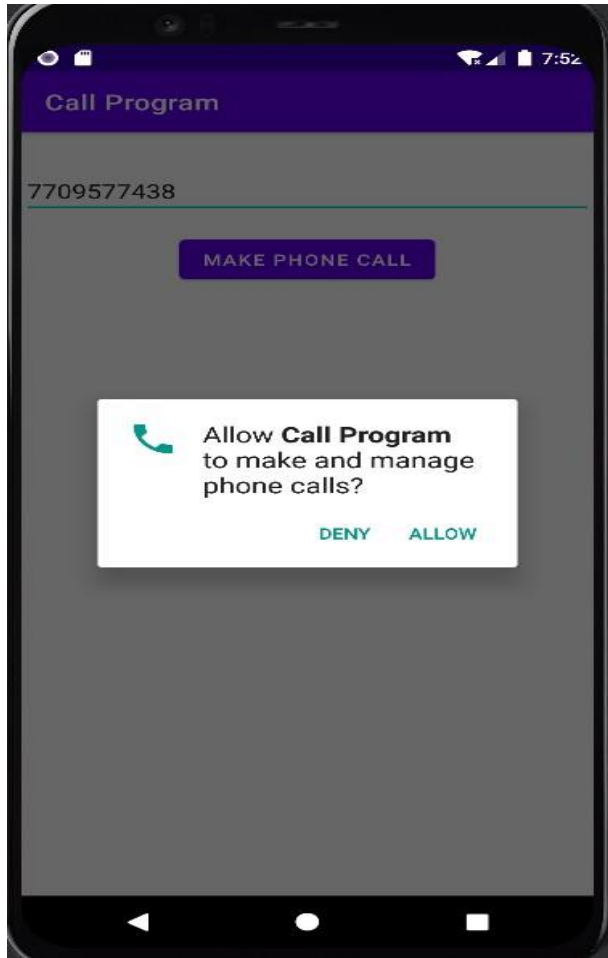
Output:

Q3] Create an android application to demonstrate the working of implicit intent. Use Email.:

Activity_main.xml:

```xml
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity">
    <EditText
        android:id="@+id/recipientEditText"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:hint="Recipient Email Address"
        android:layout_marginTop="32dp"
        android:layout_centerHorizontal="true" />
    <EditText
        android:id="@+id/subjectEditText"
        android:layout_width="match_parent"
```

```xml
        android:layout_height="wrap_content"
        android:hint="Subject"
        android:layout_below="@+id/recipientEditText"
        android:layout_marginTop="16dp"
        android:layout_centerHorizontal="true" />
    <EditText
        android:id="@+id/bodyEditText"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:hint="Body"
        android:layout_below="@+id/subjectEditText"
        android:layout_marginTop="16dp"
        android:layout_centerHorizontal="true" />
    <Button
        android:id="@+id/sendEmailButton"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Send Email"
        android:layout_below="@id/bodyEditText"
        android:layout_centerHorizontal="true"
        android:layout_marginTop="16dp" />
</RelativeLayout>
```
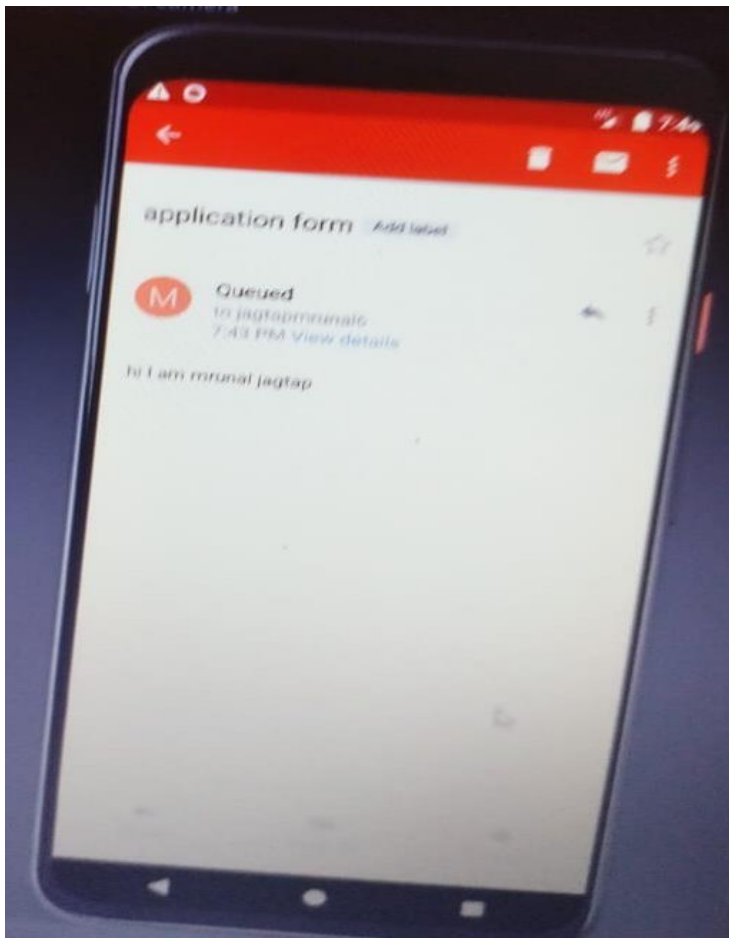
Mainactivity.java:

```java
package com.example.emailprogram;
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 recipientEditText;
    private EditText subjectEditText;
    private EditText bodyEditText;
    private Button sendEmailButton;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);

        recipientEditText = findViewById(R.id.recipientEditText);
        subjectEditText = findViewById(R.id.subjectEditText);
        bodyEditText = findViewById(R.id.bodyEditText);
        sendEmailButton = findViewById(R.id.sendEmailButton);
        sendEmailButton.setOnClickListener(new View.OnClickListener() {
```

```
    @Override
    public void onClick(View v) {
        sendEmail();
    }
    });
}
private void sendEmail() {
    String recipientEmail = recipientEditText.getText().toString().trim();
    String subject = subjectEditText.getText().toString();
    String body = bodyEditText.getText().toString();
    if (!recipientEmail.isEmpty()) {
        Intent emailIntent = new Intent(Intent.ACTION_SEND);
        emailIntent.setType("text/plain");
        emailIntent.putExtra(Intent.EXTRA_EMAIL, new String[]{recipientEmail});
        emailIntent.putExtra(Intent.EXTRA_SUBJECT, subject);
        emailIntent.putExtra(Intent.EXTRA_TEXT, body);

    }
}
}
```

Output:

Q4] Create an android application to demonstrate the working of explicit intent where insert user name and age from user and display both content on the second activity. Use putextra and getextra.

Activity_main.xml:

```xml
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity">
    <TextView
        android:id="@+id/txt1"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:text="User Data Form"
        android:textSize="30dp"
        android:textAlignment="center"
        android:paddingBottom="20dp"/>
    <EditText
        android:id="@+id/ed1"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_below="@+id/txt1"
        android:hint="Enter the name of User"
        android:paddingBottom="15dp"/>
    <EditText
        android:id="@+id/ed2"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_below="@+id/ed1"
        android:hint="Enter the age of User"/>
<Button
    android:id="@+id/btn1"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Submit"
    android:layout_below="@id/ed2"
    android:layout_centerHorizontal="true"
    android:layout_marginTop="100dp"/>
</RelativeLayout>
```

Mainactivity.java:

```java
package com.example.userdata;
import androidx.appcompat.app.AppCompatActivity;
```

```java
import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
public class MainActivity extends AppCompatActivity {
    EditText ed1,ed2;
    Button btn1;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        ed1=findViewById(R.id.ed1);
        ed2=findViewById(R.id.ed2);
        btn1=findViewById(R.id.btn1);
        btn1.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                String name=ed1.getText().toString();
                Integer age=Integer.parseInt(ed2.getText().toString());
                Intent intent=new Intent(getApplicationContext(),MainActivity2.class);
                intent.putExtra("Name",name);
                intent.putExtra("Age",age);
                startActivity(intent);
            }
        });
    }
}
```
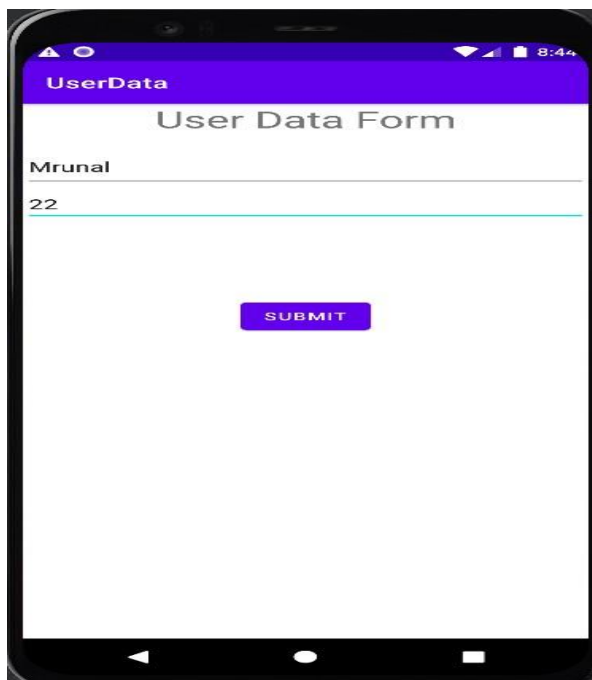
Activity_main2.xml:

```xml
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity2">
    <TextView
        android:paddingTop="20dp"
        android:layout_marginTop="50dp"
        android:id="@+id/txt1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text=" "
        android:textSize="20dp"
```
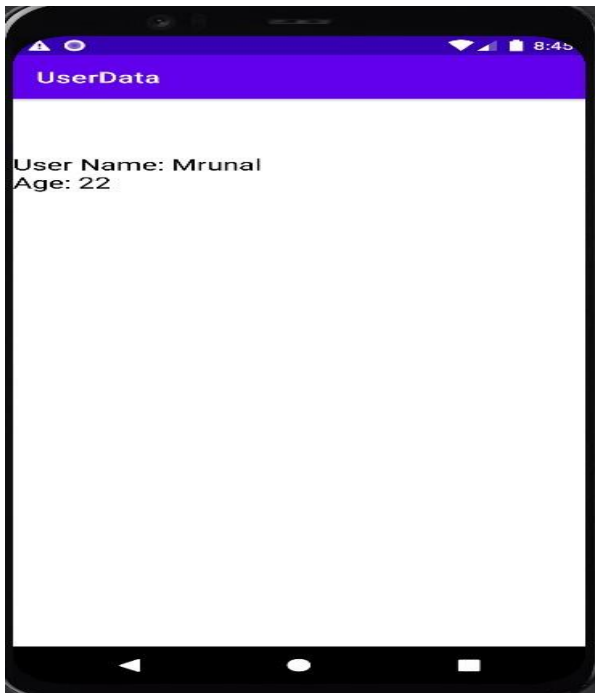
android:textColor="@color/black"/>
</LinearLayout>

Mainactivity2.java:

```java
package com.example.userdata;
import androidx.appcompat.app.AppCompatActivity;
import android.content.Intent;
import  android.os.Bundle;
import android.widget.TextView;
public class MainActivity2 extends AppCompatActivity {
    TextView txt1;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main2);
        txt1=findViewById(R.id.txt1);
        Intent intent=getIntent();
        String name=intent.getStringExtra("Name");
        Integer age=intent.getIntExtra("Age",0);
        String display="User Name: "+name + "\n" + "Age: " + age;
        txt1.setText(display);
    }
}
```

Output:

Q5]Create an android application to demonstrate the working of bundle class, where create first activity as student marksheet and display the content result on second activity and display congratulation on third activity or try again on third activity.Use bundle concept.

```xml
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    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">

    <EditText
        android:id="@+id/markEditText1"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:hint="Enter Mark 1"
        android:inputType="number" />

    <EditText
        android:id="@+id/markEditText2"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:hint="Enter Mark 2"
```

```
            android:inputType="number" />

        <EditText
            android:id="@+id/markEditText3"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:hint="Enter Mark 3"
            android:inputType="number" />

        <Button
            android:id="@+id/calculateButton"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:text="Calculate Result" />
    </LinearLayout>

package com.example.studentmarksheet;
import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;
import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.Toast;
import androidx.appcompat.app.AppCompatActivity;
public class MainActivity extends AppCompatActivity {
    private EditText markEditText1, markEditText2, markEditText3;
    private Button calculateButton;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        markEditText1 = findViewById(R.id.markEditText1);
        markEditText2 = findViewById(R.id.markEditText2);
        markEditText3 = findViewById(R.id.markEditText3);
        calculateButton = findViewById(R.id.calculateButton);
        calculateButton.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                int mark1 = Integer.parseInt(markEditText1.getText().toString());
                int mark2 = Integer.parseInt(markEditText2.getText().toString());
                int mark3 = Integer.parseInt(markEditText3.getText().toString());
                int totalMarks = mark1 + mark2 + mark3;
                int averageMarks = totalMarks / 3;
                String result;
```

```java
            if (averageMarks >= 60) {
                result = "Pass";
            } else {
                result = "Fail";
            }
            Intent intent = new Intent(MainActivity.this, ResultActivity.class);
            intent.putExtra("RESULT", result);
            startActivity(intent);
        }
    });
    }
}
```

```xml
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    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=".ResultActivity">
    <TextView
        android:id="@+id/resultText"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Result will be displayed here" />
    <Button
        android:id="@+id/proceedButton"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Proceed" />
</LinearLayout>
```

```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">
    <TextView
        android:id="@+id/finalMessage"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
```

android:text="Congratulations or Try Again message will be displayed here" />
</LinearLayout>

```java
package com.example.studentmarksheet;
import android.content.Intent;
import  android.os.Bundle;
import android.widget.TextView;
import androidx.appcompat.app.AppCompatActivity;
public class FinalActivity extends AppCompatActivity {
    private TextView finalMessage;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_final);
        finalMessage = findViewById(R.id.finalMessage);
        Intent intent = getIntent();
        String result = intent.getStringExtra("RESULT");
        if (result != null) {
            if (result.equals("Pass")) {
                finalMessage.setText("Congratulations!");
            } else {
                finalMessage.setText("Try Again.");
            }
        } else {
            finalMessage.setText("Result is not available.");
        }
    }
}
```

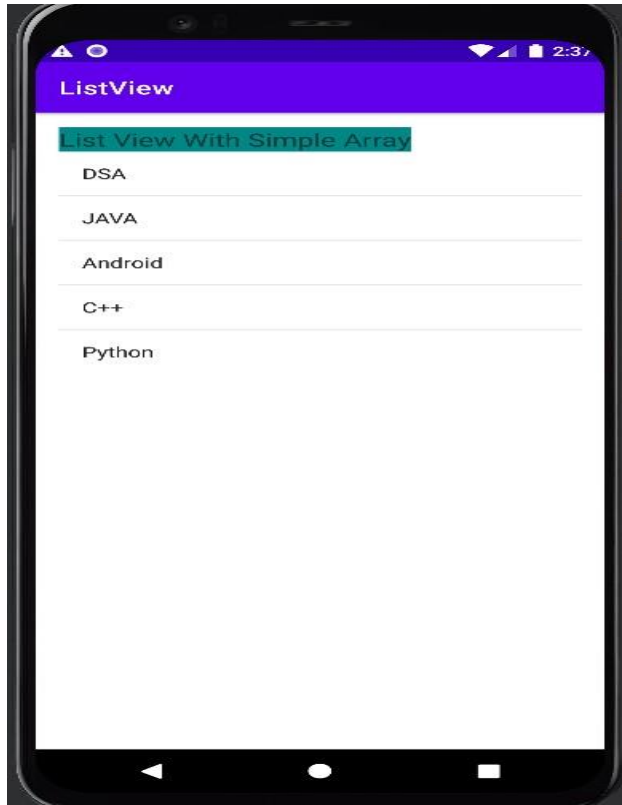Q6] Create an android application to demonstrate working of simple adapter

Activity_main.xml:

```xml
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    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">
    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="List View With Simple Array"
        android:backgroundTint="@color/teal_700"
        android:background="@color/teal_700"
        android:textSize="20dp"/>
    <ListView
        android:id="@+id/listView"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"/>
</LinearLayout>
```

Mainactivity.java:

```java
package com.example.listview;
import android.os.Bundle;
import android.widget.ArrayAdapter;
import android.widget.ListView;
import androidx.appcompat.app.AppCompatActivity;
public class MainActivity extends AppCompatActivity {
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        String[] items = {"DSA", "JAVA", "Android", "C++", "Python"};
        ArrayAdapter<String> adapter = new ArrayAdapter<>(this,
android.R.layout.simple_list_item_1, items);
        ListView listView = findViewById(R.id.listView);
        listView.setAdapter(adapter);
    }
}
```

Output:

Q7] Create an android application to demonstrate the working of custom adapter use string.xml resource file.

Activity_main.xml:

```xml
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    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">
    <EditText
        android:id="@+id/nameEditText"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:hint="Enter your name" />
    <Spinner
        android:id="@+id/pizzaTypeSpinner"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_marginTop="16dp"
        android:entries="@array/pizza_types" />
```

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```xml
    <Button
        android:id="@+id/submitButton"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:text="Submit" />
</LinearLayout>
```
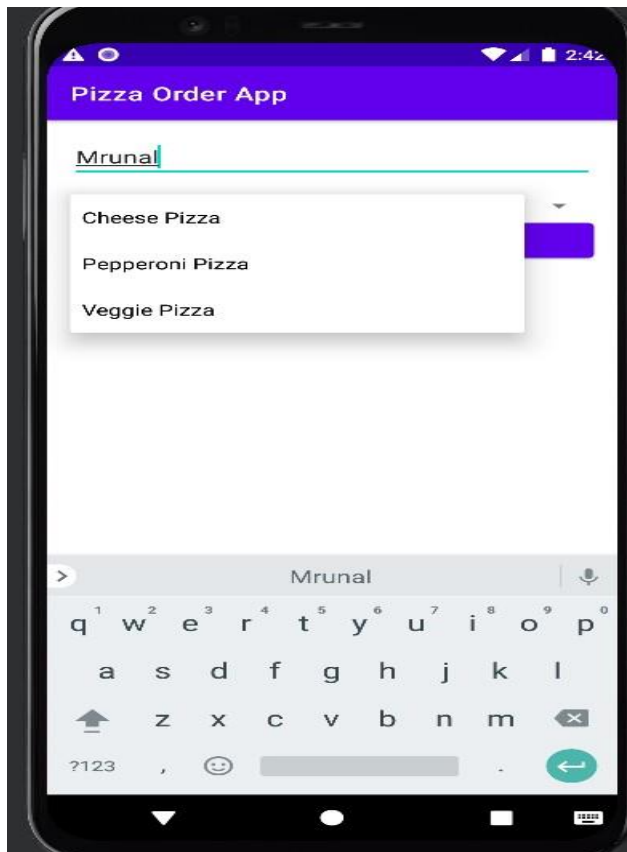
Mainactivity.java:

```java
package com.example.pizzaordering;
import  android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.AdapterView;
import android.widget.ArrayAdapter;
import  android.widget.Button;
import android.widget.EditText;
import android.widget.Spinner;
import androidx.appcompat.app.AppCompatActivity;
import com.example.pizzaordering.OrderSummaryActivity;
import com.example.pizzaordering.R;
public class MainActivity extends AppCompatActivity {
    private EditText nameEditText;
    private Spinner pizzaTypeSpinner;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        nameEditText = findViewById(R.id.nameEditText);
        pizzaTypeSpinner = findViewById(R.id.pizzaTypeSpinner);
        ArrayAdapter<CharSequence> adapter = ArrayAdapter.createFromResource(
                this,
                R.array.pizza_types,
                android.R.layout.simple_spinner_item
        );
        adapter.setDropDownViewResource(android.R.layout.simple_spinner_dropdown_item);
        pizzaTypeSpinner.setAdapter(adapter);
        pizzaTypeSpinner.setPrompt("Select pizza type");
        Button submitButton = findViewById(R.id.submitButton);
        submitButton.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                String name = nameEditText.getText().toString();
                String pizzaType = pizzaTypeSpinner.getSelectedItem().toString();
                Intent intent = new Intent(MainActivity.this, OrderSummaryActivity.class);
                intent.putExtra("name", name);
                intent.putExtra("pizzaType", pizzaType);
```

```
        startActivity(intent);
      }
    });
  }
}
```

arrays.xml:

```
<resources>
   <string-array name="pizza_types">
      <item>Cheese Pizza</item>
      <item>Pepperoni Pizza</item>
      <item>Veggie Pizza</item>
      <!-- Add more pizza types as needed -->
   </string-array>
</resources>
```

Output:

Q8] Create an android application to implement Alert dialog box , where create a quiz of atleast 5 MCQ and display the result on alert box and after click on positive button of alert Box display toast successful.

Activity_main.xml:

```
<LinearLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:orientation="vertical">
    <!-- Question 1 -->
    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Question 1: What is the capital of France?" />
    <RadioGroup
        android:id="@+id/radio_group_question1"
        android:layout_width="match_parent"
        android:layout_height="wrap_content">
        <RadioButton
            android:id="@+id/option1_question1"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:text="Paris" />
        <RadioButton
            android:id="@+id/option2_question1"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:text="London" />
    </RadioGroup>
    <!-- Question 2 -->
    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Question 2: What is the largest planet in our solar system?" />
    <RadioGroup
        android:id="@+id/radio_group_question2"
        android:layout_width="match_parent"
        android:layout_height="wrap_content">
        <RadioButton
            android:id="@+id/option1_question2"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:text="Mars" />
        <RadioButton
```

```xml
        android:id="@+id/option2_question2"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Jupiter" />
</RadioGroup>
<TextView
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Question 3: Which is the java framework?" />
<RadioGroup
    android:id="@+id/radio_group_question3"
    android:layout_width="match_parent"
    android:layout_height="wrap_content">
    <RadioButton
        android:id="@+id/option1_question3"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Django" />
    <RadioButton
        android:id="@+id/option2_question3"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Springboot" />
</RadioGroup>
<TextView
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Question 4: Which is the python framework?" />
<RadioGroup
    android:id="@+id/radio_group_question4"
    android:layout_width="match_parent"
    android:layout_height="wrap_content">
    <RadioButton
        android:id="@+id/option1_question4"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Django" />
    <RadioButton
        android:id="@+id/option2_question4"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Springboot" />
</RadioGroup>
<TextView
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
```

```xml
            android:text="Question 5: Which is the object oriented language" />
        <RadioGroup
            android:id="@+id/radio_group_question5"
            android:layout_width="match_parent"
            android:layout_height="wrap_content">
            <RadioButton
                android:id="@+id/option1_question5"
                android:layout_width="wrap_content"
                android:layout_height="wrap_content"
                android:text="Java" />
            <RadioButton
                android:id="@+id/option2_question5"
                android:layout_width="wrap_content"
                android:layout_height="wrap_content"
                android:text="C" />
        </RadioGroup>
        <Button
            android:id="@+id/submit_button"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:text="Submit Quiz" />
</LinearLayout>
```

Mainactivity.java:

```java
package com.example.quizz;
import android.app.AlertDialog;
import android.content.DialogInterface;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.RadioGroup;
import android.widget.Toast;
import androidx.appcompat.app.AppCompatActivity;
public class MainActivity extends AppCompatActivity {
    private int score = 0;
    private RadioGroup question1RadioGroup;
    private RadioGroup question2RadioGroup;
    private RadioGroup question3RadioGroup;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        question1RadioGroup = findViewById(R.id.radio_group_question1);
        question2RadioGroup = findViewById(R.id.radio_group_question2);
        question3RadioGroup = findViewById(R.id.radio_group_question3);
        Button submitButton = findViewById(R.id.submit_button);
```

```java
        submitButton.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                calculateScore();
                showScoreDialog(score);
            }
        });
    }

    private void calculateScore() {
        // Question 1: Check the selected answer and update the score
        int selectedAnswer1 = question1RadioGroup.getCheckedRadioButtonId();
        if (selectedAnswer1 == R.id.option1_question1) {
            score++;
        }

        // Question 2: Check the selected answer and update the score
        int selectedAnswer2 = question2RadioGroup.getCheckedRadioButtonId();
        if (selectedAnswer2 == R.id.option2_question2) {
            score++;
        }
        int selectedAnswer3 = question3RadioGroup.getCheckedRadioButtonId();
        if (selectedAnswer3 == R.id.option2_question3) {
            score++;
        }
        int selectedAnswer4 = question3RadioGroup.getCheckedRadioButtonId();
        if (selectedAnswer4 == R.id.option2_question3) {
            score++;
        }
        int selectedAnswer5 = question3RadioGroup.getCheckedRadioButtonId();
        if (selectedAnswer5 == R.id.option2_question3) {
            score++;
        }
    }

    private void showScoreDialog(int score) {
        AlertDialog.Builder builder = new AlertDialog.Builder(this);
        builder.setTitle("Quiz Results");
        builder.setMessage("Your score: " + score);
        builder.setPositiveButton("OK", new DialogInterface.OnClickListener() {
            @Override
            public void onClick(DialogInterface dialog, int which) {
                dialog.dismiss();
                // Display a thank you message when the dialog is dismissed
                Toast.makeText(getApplicationContext(), "Thank you!",
Toast.LENGTH_SHORT).show();
```
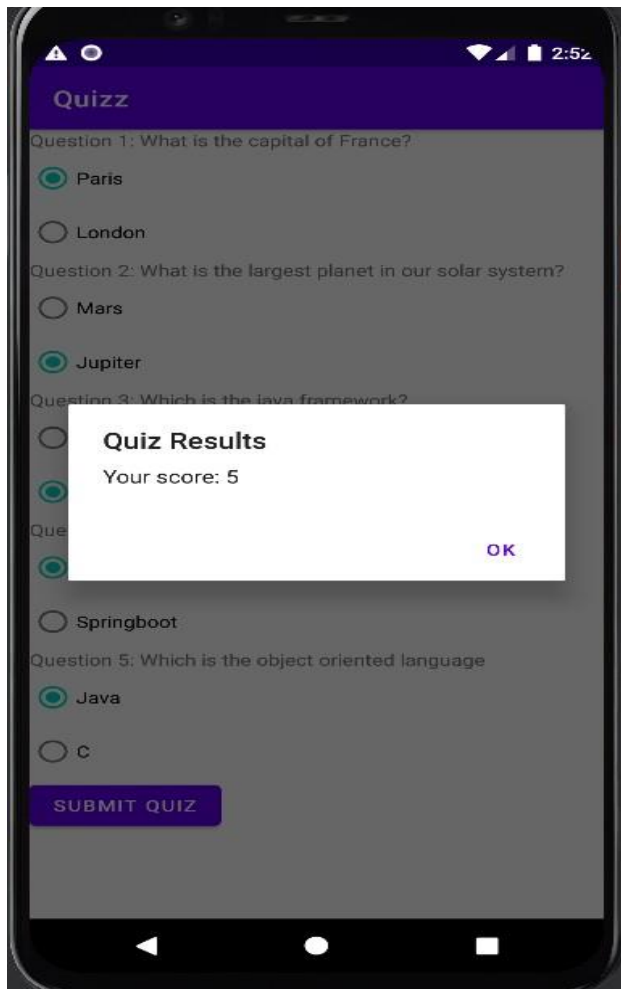
```
        }
    });

    AlertDialog dialog = builder.create();
    dialog.show();
    }
}
```

Output:

Q9] Create an android application to implement Date Picker dialog box

Activity_main.xml:

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

```xml
    android:orientation="vertical"
    android:padding="16dp"
    tools:context=".MainActivity">

    <EditText
        android:id="@+id/dateEditText"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:hint="Select Date"
        android:focusable="false"
        android:clickable="true"
        android:inputType="none" />

    <Button
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Pick Date"
        android:id="@+id/pickDateButton" />
</LinearLayout>
```
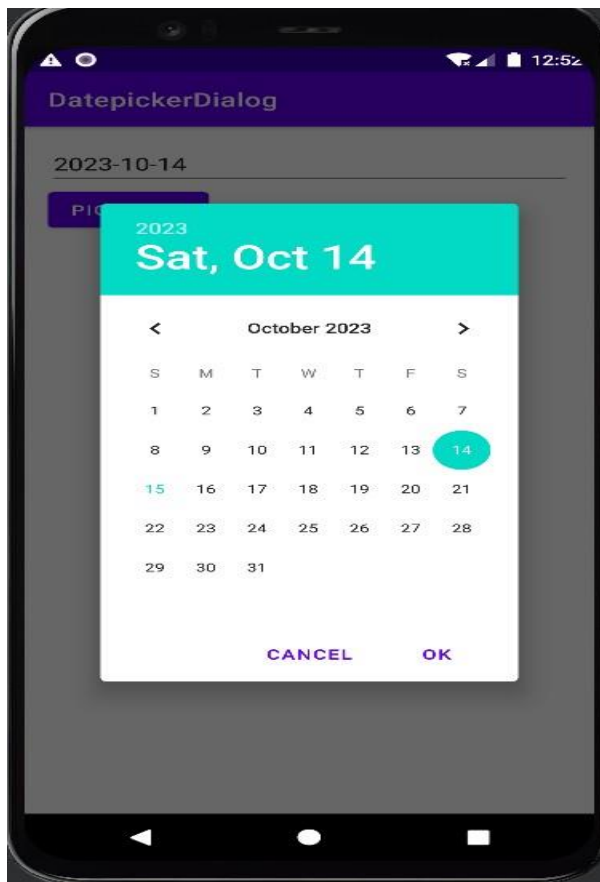
Mainactivity.java:

```java
package com.example.datepickerdialog;
import androidx.appcompat.app.AppCompatActivity;
import android.app.DatePickerDialog;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.DatePicker;
import android.widget.EditText;
import java.util.Calendar;
public class MainActivity extends AppCompatActivity {
    private EditText dateEditText;
    private Button pickDateButton;
    private Calendar calendar;
    private int year, month, day;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        dateEditText = findViewById(R.id.dateEditText);
        pickDateButton = findViewById(R.id.pickDateButton);
        calendar = Calendar.getInstance();
        year = calendar.get(Calendar.YEAR);
        month = calendar.get(Calendar.MONTH);
        day = calendar.get(Calendar.DAY_OF_MONTH);
        pickDateButton.setOnClickListener(new View.OnClickListener() {
```

```java
        @Override
        public void onClick(View v) {
            showDatePickerDialog();
        }
    });
}
private void showDatePickerDialog() {
    DatePickerDialog datePickerDialog = new DatePickerDialog(this,
        new DatePickerDialog.OnDateSetListener() {
            @Override
            public void onDateSet(DatePicker view, int selectedYear, int selectedMonth, int selectedDay) {
                year = selectedYear;
                month = selectedMonth;
                day = selectedDay;
                dateEditText.setText(year + "-" + (month + 1) + "-" + day);
            }
        }, year, month, day);
    datePickerDialog.show();
}
}
```

Output:

Q10] Create an android application to implement Date Picker using Calendar class.

```xml
<LinearLayout
    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:orientation="vertical"
    android:padding="16dp"
    tools:context=".MainActivity">

    <Button
        android:id="@+id/pickDateButton"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Pick a Date" />

    <TextView
        android:id="@+id/displayDateText"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="16dp"
        android:text="" />
</LinearLayout>
```

Mainactivity.java:

```java
package com.example.datepickercalendar;

import androidx.appcompat.app.AppCompatActivity;

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

import java.text.SimpleDateFormat;
import java.util.Calendar;
import java.util.Locale;

public class MainActivity extends AppCompatActivity {

    private Button pickDateButton;
```

```java
    private TextView displayDateText;
    private Calendar calendar;

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

        pickDateButton = findViewById(R.id.pickDateButton);
        displayDateText = findViewById(R.id.displayDateText);
        calendar = Calendar.getInstance();

        pickDateButton.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                int year = calendar.get(Calendar.YEAR);
                int month = calendar.get(Calendar.MONTH);
                int day = calendar.get(Calendar.DAY_OF_MONTH);

                // Create a DatePickerDialog to pick a date
                DatePickerDialog datePickerDialog = new DatePickerDialog(
                        MainActivity.this,
                        new DatePickerDialog.OnDateSetListener() {
                            @Override
                            public void onDateSet(DatePicker view, int year, int month, int
dayOfMonth) {
                                calendar.set(Calendar.YEAR, year);
                                calendar.set(Calendar.MONTH, month);
                                calendar.set(Calendar.DAY_OF_MONTH, dayOfMonth);
                                updateDisplayDate();
                            }
                        },
                        year, month, day
                );

                datePickerDialog.show();
            }
        });
    }

    private void updateDisplayDate() {
        SimpleDateFormat sdf = new SimpleDateFormat("dd/MM/yyyy", Locale.US);
        String formattedDate = sdf.format(calendar.getTime());
        displayDateText.setText("Selected Date: " + formattedDate);
    }
}
```
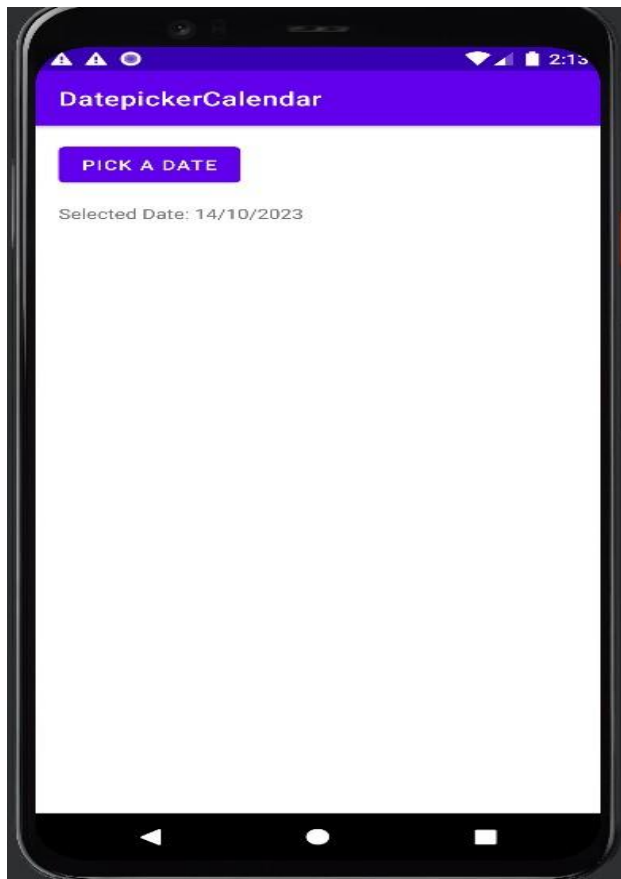
27

Q11] Create an android application to implement Time picker.

```xml
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    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">

    <Button
        android:id="@+id/pickTimeButton"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Pick a Time" />

    <TextView
        android:id="@+id/displayTimeText"
```

```
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_marginTop="16dp"
            android:text="" />
</LinearLayout>
```

Mainactivity.java:

```java
package com.example.timepicker;

import androidx.appcompat.app.AppCompatActivity;

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

import java.text.SimpleDateFormat;
import java.util.Calendar;
import java.util.Locale;

public class MainActivity extends AppCompatActivity {

    private Button pickTimeButton;
    private TextView displayTimeText;
    private Calendar calendar;

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

        pickTimeButton = findViewById(R.id.pickTimeButton);
        displayTimeText = findViewById(R.id.displayTimeText);
        calendar = Calendar.getInstance();

        pickTimeButton.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                int hour = calendar.get(Calendar.HOUR_OF_DAY);
                int minute = calendar.get(Calendar.MINUTE);

                // Create a TimePickerDialog to pick a time
                TimePickerDialog timePickerDialog = new TimePickerDialog(
                        MainActivity.this,
```
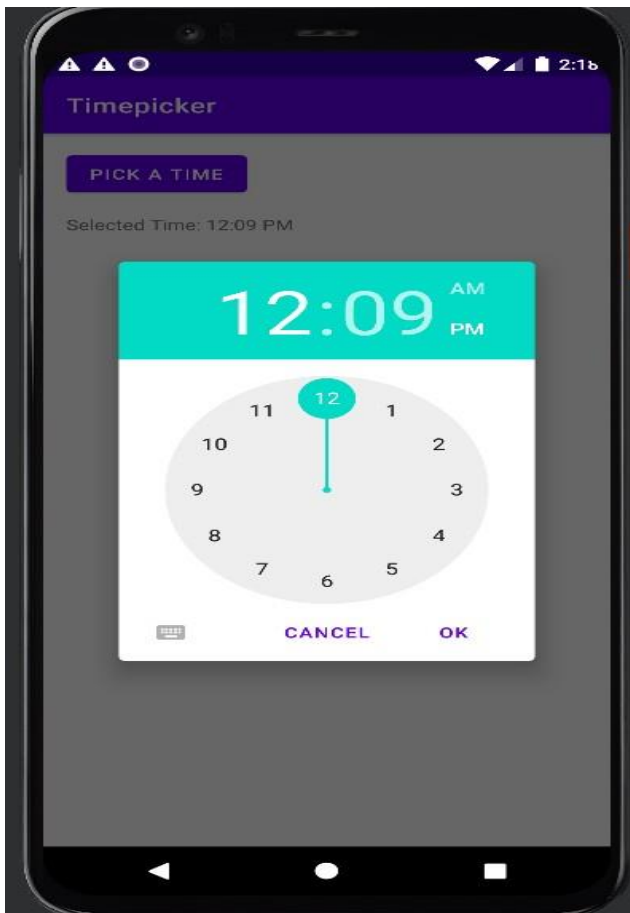
```java
            new TimePickerDialog.OnTimeSetListener() {
              @Override
              public void onTimeSet(TimePicker view, int hourOfDay, int minute) {
                calendar.set(Calendar.HOUR_OF_DAY, hourOfDay);
                calendar.set(Calendar.MINUTE, minute);
                updateDisplayTime();
              }
            },
            hour, minute, false
        );

        timePickerDialog.show();
      }
    });
  }

  private void updateDisplayTime() {
    SimpleDateFormat sdf = new SimpleDateFormat("hh:mm a", Locale.US);
    String formattedTime = sdf.format(calendar.getTime());
    displayTimeText.setText("Selected Time: " + formattedTime);
  }
}
```

Q12] Create an android application to demonstrate working of Option Menu for famous countries.

```
package com.example.menubar;

import androidx.annotation.NonNull;
import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;
import android.view.Menu;
import android.view.MenuItem;
import android.widget.Toast;

public class OptionMenuBar extends AppCompatActivity {

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

    }

    @Override
    public boolean onCreateOptionsMenu(Menu menu) {
        getMenuInflater().inflate(R.menu.option_menubar,menu);



        return true;
    }

    @Override
    public boolean onOptionsItemSelected(@NonNull MenuItem item) {
        int item_id= item.getItemId();
        switch(item_id){
            case R.id.india:
                Toast.makeText(this,"India is selected",Toast.LENGTH_SHORT).show();
                return true;
            case R.id.brazil:
                Toast.makeText(this,"Brazil is selected",Toast.LENGTH_SHORT).show();
                return true;
            case R.id.france:
                Toast.makeText(this,"France is selected",Toast.LENGTH_SHORT).show();
                return true;
```
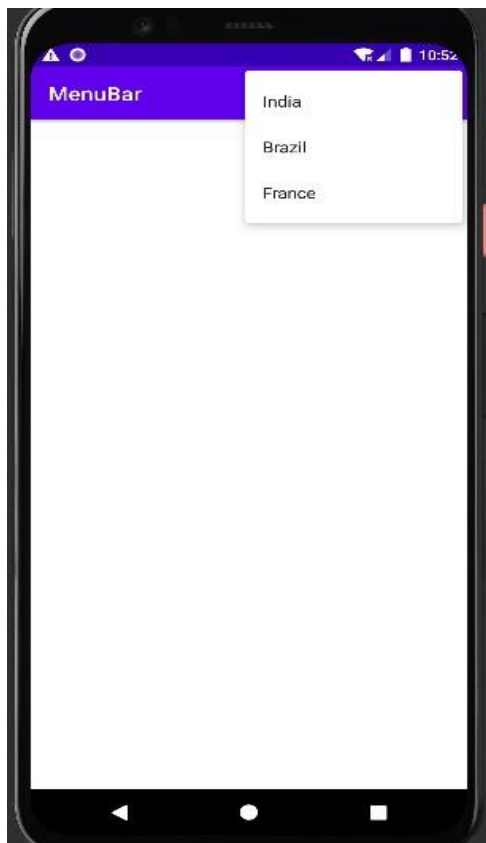
```
        default:
            return super.onOptionsItemSelected(item);
    }


  }
}
```

option_menu.xml:

```xml
<?xml version="1.0" encoding="utf-8"?>
<menu xmlns:android="http://schemas.android.com/apk/res/android">
  <item
    android:title="India"
    android:id="@+id/india"
    />
  <item
    android:title="Brazil"
    android:id="@+id/brazil"
    />
  <item
    android:title="France"
    android:id="@+id/france"
    />
</menu>
```

Q13] Create an android application to demonstrate working of popup menu for menu of food

```xml
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".PopupMenuBar"
    >
    <Button
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:id="@+id/btn1"
        android:text="Food Type"
        android:layout_marginTop="200dp"
        android:layout_marginLeft="150dp"/>
</LinearLayout>
```

```java
package com.example.menubar;
import androidx.appcompat.app.AppCompatActivity;
import android.widget.Button;
import android.widget.PopupMenu;
import android.widget.Toast;
public class PopupMenuBar extends AppCompatActivity {
    Button btn1;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_popup_menu_bar);
        btn1=findViewById(R.id.btn1);
        btn1.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                PopupMenu popupMenu=new PopupMenu(PopupMenuBar.this,btn1);

popupMenu.getMenuInflater().inflate(R.menu.popup_menu,popupMenu.getMenu());
                popupMenu.setOnMenuItemClickListener(new
PopupMenu.OnMenuItemClickListener() {
                    @Override
                    public boolean onMenuItemClick(MenuItem menuItem) {

Toast.makeText(PopupMenuBar.this,menuItem.getTitle(),Toast.LENGTH_SHORT).show();
                        return true;
```
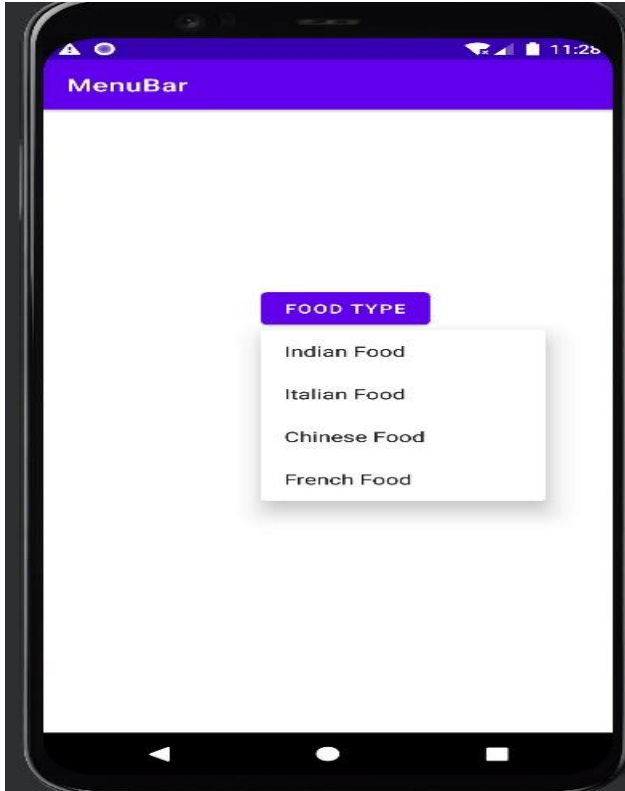
```
                }
            });
            popupMenu.show();
        }
    });
  }
}
```


Q14]Create an android application to demonstrate working of Context Menu for all file options<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".ContextMenuBar">
    <ListView
        android:layout_width="match_parent"
        android:layout_height="match_parent"
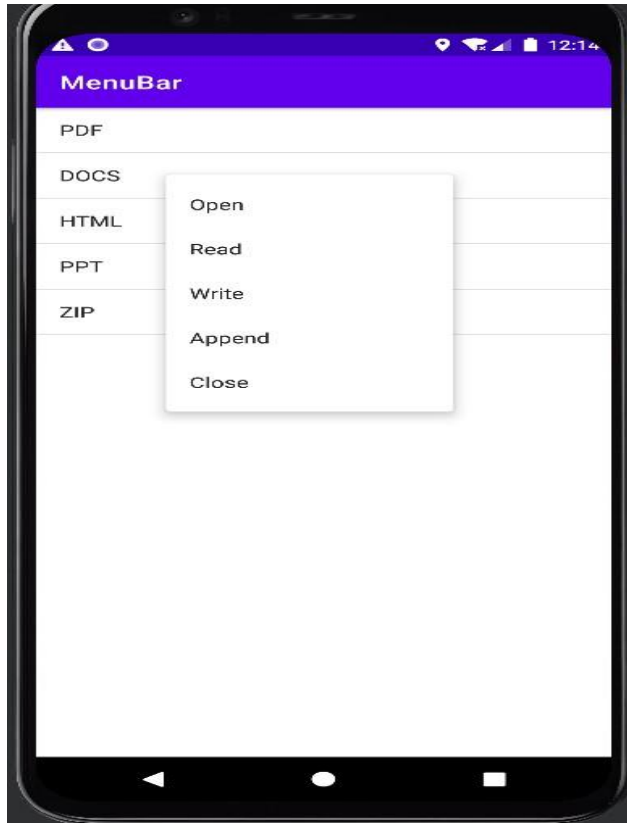   android:id="@+id/fileslist"
        />

</LinearLayout>

```java
package com.example.menubar;
import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;
import android.view.ContextMenu;
import android.view.View;
import android.widget.ArrayAdapter;
import android.widget.ListView;
public class ContextMenuBar extends AppCompatActivity {
    ListView file_list;
    String[] files={"PDF","DOCS","HTML","PPT","ZIP"};
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_context_menu_bar);
        file_list=(ListView) findViewById(R.id.fileslist);
        ArrayAdapter<String> adapter=new ArrayAdapter<>(this,
android.R.layout.simple_list_item_1,files);
        file_list.setAdapter(adapter);
        registerForContextMenu(file_list);
    }
    @Override
    public void onCreateContextMenu(ContextMenu menu, View v,
ContextMenu.ContextMenuInfo menuInfo) {
        super.onCreateContextMenu(menu, v, menuInfo);
        getMenuInflater().inflate(R.menu.context_menu,menu);

    }
}
```

Q15] Create an android application to implement rating bar.

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

    <TextView
        android:id="@+id/txt1"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:text="Rating Bar Example"
        android:textSize="30dp"
        android:textAlignment="center"
        android:paddingBottom="30dp"/>
    <RatingBar
        android:id="@+id/rating"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_below="@+id/txt1"
        android:layout_centerHorizontal="true"
```

```
            android:layout_marginTop="50dp"
            />
        <Button
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:id="@+id/btn1"
            android:text="Submit"
            android:layout_below="@+id/rating"
            android:layout_centerHorizontal="true"
            android:layout_marginTop="40dp"/>

</RelativeLayout>


import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;
import  android.view.View;
import android.widget.Button;
import android.widget.RatingBar;
import android.widget.Toast;
public class MainActivity extends AppCompatActivity {
    RatingBar rating;
    Button btn1;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        rating=findViewById(R.id.rating);
        btn1=findViewById(R.id.btn1);
        btn1.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                String star= String.valueOf(rating.getRating());

Toast.makeText(getApplicationContext(),star+"Rating",Toast.LENGTH_SHORT).show();
            }
        });
    }
}
```