

# VIT-AP UNIVERSITY, ANDHRA PRADESH

## Lab Sheet 2 : EditText and RadioButon

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### Lab2:

1. Design the following APP for the IOT store. The cost of Aurdino Uno is 500RS, the cost of WIFI module is 250RS and the Bluetooth module is 200RS. Based on the quantity compute the Amount payable when submit button is clicked, When clear is clicked clear all the Editboxes.

#### IOT store

Items	Quantity
Aurdino Uno	<input type="text"/>
Wifi module	<input type="text"/>
bluetooth	<input type="text"/>
<input type="button" value="submit"/> <input type="button" value="Clear"/>	
Amount Payable	<input type="text"/>

CODE:

#### Activity Min.xml:

```
<?xml version="1.0" encoding="utf-8"?>
<android.support.constraint.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">

    <TextView
        android:id="@+id/textView"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="62dp"
        android:layout_marginEnd="12dp"
        android:text="IOT STORE"
        app:layout_constraintEnd_toStartOf="@+id/textView3"
        app:layout_constraintTop_toTopOf="parent" />

    <TextView
        android:id="@+id/textView2"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginStart="41dp"
```

```

        android:layout_marginTop="121dp"
        android:text="ITEMS"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

<TextView
    android:id="@+id/textView3"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginStart="22dp"
    android:layout_marginBottom="10dp"
    android:text="QUANTITY"
    app:layout_constraintBottom_toTopOf="@+id/editTextNumber"
    app:layout_constraintStart_toStartOf="@+id/editTextNumber" />

<TextView
    android:id="@+id/textView4"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginStart="46dp"
    android:layout_marginTop="39dp"
    android:text="ARDUINO UNO :"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/textView2" />

<TextView
    android:id="@+id/textView5"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginStart="48dp"
    android:layout_marginTop="51dp"
    android:text="WIFI MODULE :"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/textView4" />

<TextView
    android:id="@+id/textView6"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginStart="58dp"
    android:layout_marginTop="52dp"
    android:text="BLUETOOTH :"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/textView5" />

<EditText
    android:id="@+id/editTextNumber"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginTop="72dp"
    android:layout_marginEnd="28dp"
    android:layout_marginBottom="70dp"
    android:ems="10"
    android:inputType="number"
    app:layout_constraintBottom_toBottomOf="@+id/textView5"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/textView" />

<EditText
    android:id="@+id/editTextNumber2"
    android:layout_width="wrap_content"

```

```

        android:layout_height="wrap_content"
        android:layout_marginTop="25dp"
        android:layout_marginEnd="28dp"
        android:ems="10"
        android:inputType="number"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/editTextNumber" />

<EditText
    android:id="@+id/editTextNumber3"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginTop="25dp"
    android:layout_marginEnd="28dp"
    android:ems="10"
    android:inputType="number"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/editTextNumber2" />

<TextView
    android:id="@+id/textView7"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginStart="20dp"
    android:layout_marginEnd="20dp"
    android:layout_marginBottom="170dp"
    android:text="Amount Payable :"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toStartOf="@+id/textView"
    app:layout_constraintStart_toStartOf="@+id/textView5" />

<EditText
    android:id="@+id/editTextNumber4"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginEnd="16dp"
    android:layout_marginBottom="144dp"
    android:ems="10"
    android:inputType="number"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent" />

<Button
    android:id="@+id/button"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginStart="46dp"
    android:background="@color/purple_200"
    android:text="SUBMIT"
    app:layout_constraintBottom_toBottomOf="@+id/button2"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="@+id/button2" />

<Button
    android:id="@+id/button2"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginTop="79dp"
    android:layout_marginEnd="62dp"
    android:background="@color/purple_200"
    android:text="CLEAR"

```

```

        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/editTextNumber3" />
</android.support.constraint.ConstraintLayout>

```

## MainActivity.java

```

package com.example.iotstore;

import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.TextView;

public class MainActivity extends AppCompatActivity {
    EditText e1, e2, e3, e4;
    Button b1, b2;
    TextView t1, t2, t3, t4, t5, t6, t7;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        e1 = findViewById(R.id.editTextNumber);
        e2 = findViewById(R.id.editTextNumber2);
        e3 = findViewById(R.id.editTextNumber3);
        e4 = findViewById(R.id.editTextNumber4);
        b1 = findViewById(R.id.button);
        b2 = findViewById(R.id.button2);
        t1 = findViewById(R.id.textView);
        t2 = findViewById(R.id.textView2);
        t3 = findViewById(R.id.textView3);
        t4 = findViewById(R.id.textView4);
        t5 = findViewById(R.id.textView5);
        t6 = findViewById(R.id.textView6);
        t7 = findViewById(R.id.textView7);

        b1.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                int a = Integer.parseInt(e1.getText().toString());
                int b = Integer.parseInt(e2.getText().toString());
                int c = Integer.parseInt(e3.getText().toString());
                int res = ((500 * a) + (250 * b) + (200 * c));
                e4.setText(String.valueOf(res));
            }
        });
        b2.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                e1.getText().clear();
                e2.getText().clear();
                e3.getText().clear();
                e4.getText().clear();
            }
        });
    }
}

```

## Output:

The image displays two screenshots of an application titled "IoT Store". The interface includes a header with the store name, a status bar at the top showing time and battery, and a table with two columns: "ITEMS" and "QUANTITY".

**Left Screenshot:** The table contains three items: "ARDUINO UNO" with a quantity of 500, "WIFI MODULE" with a quantity of 250, and "BLUETOOTH" with a quantity of 200. Below the table are two buttons, "SUBMIT" and "CLEAR". A blue arrow points to the "SUBMIT" button. At the bottom, the "Amount Payable" is calculated as 352500.

**Right Screenshot:** The table is empty. The "SUBMIT" and "CLEAR" buttons are present. A blue arrow points to the "CLEAR" button. The "Amount Payable" field is empty.

## 2. Design a Currency converter App.

The image displays three screenshots of an application titled "CURRENCY CONVETER". The interface includes a header with the app name, a status bar at the top showing time and battery, and a form with a text input field labeled "in rs", a radio button selection for the target currency (USD, EURO, YEN), a "CONVERT" button, and a display field for the result.

**First Screenshot:** The "in rs" field contains "100". The "USD" radio button is selected. The "CONVERT" button is visible. The result field is empty.

**Second Screenshot:** The "in rs" field contains "100". The "YEN" radio button is selected. The "CONVERT" button is visible. The result field displays "101.4".

**Third Screenshot:** The "in rs" field contains "100". The "EURO" radio button is selected. The "CONVERT" button is visible. The result field displays "21.4".

Code:

Activity\_Min.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"
tools:context=".MainActivity">

    <TextView
        android:id="@+id/textView"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:background="#DEF173"
        android:layout_marginTop="60dp"
        android:layout_marginBottom="169dp"
        android:text="Currency Converter"
        app:layout_constraintBottom_toTopOf="@+id/editTextNumber"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

    <EditText
        android:id="@+id/editTextNumber"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginEnd="104dp"
        android:layout_marginBottom="17dp"
        android:ems="10"
        android:hint="Enter an INR Number"
        android:inputType="number"
        app:layout_constraintBottom_toTopOf="@+id/radioGroup"
        app:layout_constraintEnd_toEndOf="@+id/radioGroup"
        app:layout_constraintTop_toBottomOf="@+id/textView" />

    <Button
        android:id="@+id/button"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginBottom="157dp"
        android:text="Submit"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="@+id/radioGroup"
        app:layout_constraintHorizontal_bias="0.498"
        app:layout_constraintStart_toStartOf="@+id/radioGroup"
        app:layout_constraintTop_toBottomOf="@+id/radioGroup" />

    <RadioGroup
        android:id="@+id/radioGroup"
        android:layout_width="402dp"
        android:layout_height="208dp"
        android:layout_marginBottom="6dp"
        app:layout_constraintBottom_toTopOf="@+id/button"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.0"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/editTextNumber">
```

```

        <RadioButton
            android:id="@+id/radioButton"
            android:layout_width="283dp"
            android:layout_height="wrap_content"
            android:layout_gravity="center"
            android:background="#B99FDD"
            android:gravity="center"
            android:text="USD" />

        <RadioButton
            android:id="@+id/radioButton2"
            android:layout_width="283dp"
            android:background="#B99FDD"

            android:layout_height="wrap_content"
            android:layout_gravity="center"
            android:gravity="center"
            android:text="Euros" />

        <RadioButton
            android:id="@+id/radioButton3"
            android:layout_width="283dp"
            android:layout_height="wrap_content"

            android:layout_gravity="center"
            android:background="#B99FDD"
            android:gravity="center"
            android:text=" YEN" />
    </RadioGroup>

</androidx.constraintlayout.widget.ConstraintLayout>

```

## MainActivity.java

```

package com.example.currency_converter;

import androidx.appcompat.app.AppCompatActivity;

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

public class MainActivity extends AppCompatActivity {
    TextView t;
    EditText e;
    Button b;

    RadioButton rb1,rb2,rb3;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        t = findViewById(R.id.textView);
        e = findViewById(R.id.editTextNumber);
        b = findViewById(R.id.button);
    }
}

```

```

        rb1=findViewById(R.id.radioButton);
        rb2=findViewById(R.id.radioButton2);
        rb3=findViewById(R.id.radioButton3);

//
//
        b.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {

                double x = Double.parseDouble(e.getText().toString());

                if(rb1.isChecked())
                { double k1 = x/80;
                  e.setText(String.format("%.2f",k1));
                  Toast.makeText(MainActivity.this,String.format("%.2f",k1)+"
                  USD",Toast.LENGTH_SHORT).show();
                }
                else if(rb2.isChecked())
                { double k2 = x/100;
                  e.setText(String.format("%.2f",k2));
                  Toast.makeText(MainActivity.this,String.format("%.2f",k2)+"
                  Euros",Toast.LENGTH_SHORT).show();
                }
                else
                { double k3 = x/0.05;
                  e.setText(String.format("%.2f",k3));
                  Toast.makeText(MainActivity.this,String.format("%.2f",k3)+"
                  YEN",Toast.LENGTH_SHORT).show();
                }
            }
        });
    }
}

```

output:



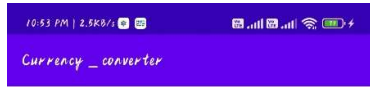


Currency Converter

80

☒ USD  
☐ Euros  
☐ YEN

SUBMIT



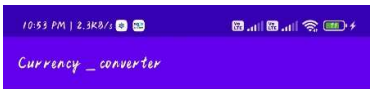
Currency Converter

1.00

☒ USD  
☐ Euros  
☐ YEN

SUBMIT

1.00 USD

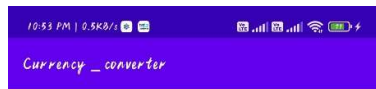


Currency Converter

50

☐ USD  
☒ Euros  
☐ YEN

SUBMIT



Currency Converter

0.50

☐ USD  
☒ Euros  
☐ YEN

SUBMIT

0.50 Euros

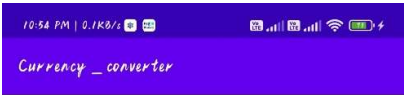


Currency Converter

78

<input type="radio"/>	USD
<input type="radio"/>	Euros
<input checked="" type="radio"/>	YEN

SUBMIT



Currency Converter

1560.00

<input type="radio"/>	USD
<input type="radio"/>	Euros
<input checked="" type="radio"/>	YEN

SUBMIT

1560.00 YEN