Assignment

Xml File

```
<?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">

    <ImageView
        android:id="@+id/imageView"
        android:layout_width="414dp"
        android:layout_height="730dp"
        app:srcCompat="@drawable/bb"
        tools:layout_editor_absoluteX="0dp"
        tools:layout_editor_absoluteY="-1dp" />

    <CheckBox
        android:id="@+id/CDecimal"
        android:layout_width="120dp"
        android:layout_height="64dp"
        android:buttonTint="@color/your_color"
        android:text="Decimal"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.879"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.256" />

    <CheckBox
        android:id="@+id/CBinary"
        android:layout_width="120dp"
        android:layout_height="64dp"
        android:buttonTint="@color/your_color"
        android:text="Binary"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.879"
        app:layout_constraintStart_toStartOf="parent"
```

```
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.352" />

<CheckBox
    android:id="@+id/CHexa"
    android:layout_width="120dp"
    android:layout_height="64dp"
    android:buttonTint="@color/your_color"
    android:text="Hexa"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.879"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.544" />

<CheckBox
    android:id="@+id/COctal"
    android:layout_width="120dp"
    android:layout_height="64dp"
    android:buttonTint="@color/your_color"
    android:text="Octal"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.879"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.448" />

<TextView
    android:id="@+id/textView"
    android:layout_width="166dp"
    android:layout_height="27dp"
    android:text="Select Number Type :"
    android:textAlignment="center"
    android:textSize="16sp"
    android:textStyle="bold"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.126"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.166" />
```

```
<TextView
    android:id="@+id/textView6"
    android:layout_width="131dp"
    android:layout_height="23dp"
    android:text="Convert To :"
    android:textAlignment="center"
    android:textSize="16sp"
    android:textStyle="bold"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.875"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.165" />

<RadioGroup
    android:id="@+id/rg"
    android:layout_width="120dp"
    android:layout_height="255dp"
    android:orientation="vertical"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.137"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.359">


    <RadioButton
        android:id="@+id/RDecimal"
        android:layout_width="120dp"
        android:layout_height="64dp"
        android:buttonTint="@color/your_color"
        android:text="Decimal"
        android:checked="true"/>

    <RadioButton
        android:id="@+id/RBinary"
        android:layout_width="120dp"
        android:layout_height="64dp"
        android:buttonTint="@color/your_color"
        android:text="Binary" />
```

```
    <RadioButton
        android:id="@+id/ROctal"
        android:layout_width="120dp"
        android:layout_height="64dp"
        android:buttonTint="@color/your_color"
        android:text="Octal" />

    <RadioButton
        android:id="@+id/RHexa"
        android:layout_width="120dp"
        android:layout_height="64dp"
        android:buttonTint="@color/your_color"
        android:text="Hexa" />


</RadioGroup>

<ImageButton
    android:id="@+id/Submit"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:backgroundTint="#00FFFFFF"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.498"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.946"
    app:srcCompat="@drawable/equal" />

<EditText
    android:id="@+id/Number"
    android:layout_width="311dp"
    android:layout_height="50dp"
    android:ems="10"
    android:hint="Enter The Number"
    android:inputType="textPersonName"
    android:textAlignment="center"
    android:textColor="#000000"
    android:textColorHighlight="#000000"
    android:textColorLink="#FCECEF"
    android:textStyle="bold"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
```

```
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.696" />

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

MainActivity.java

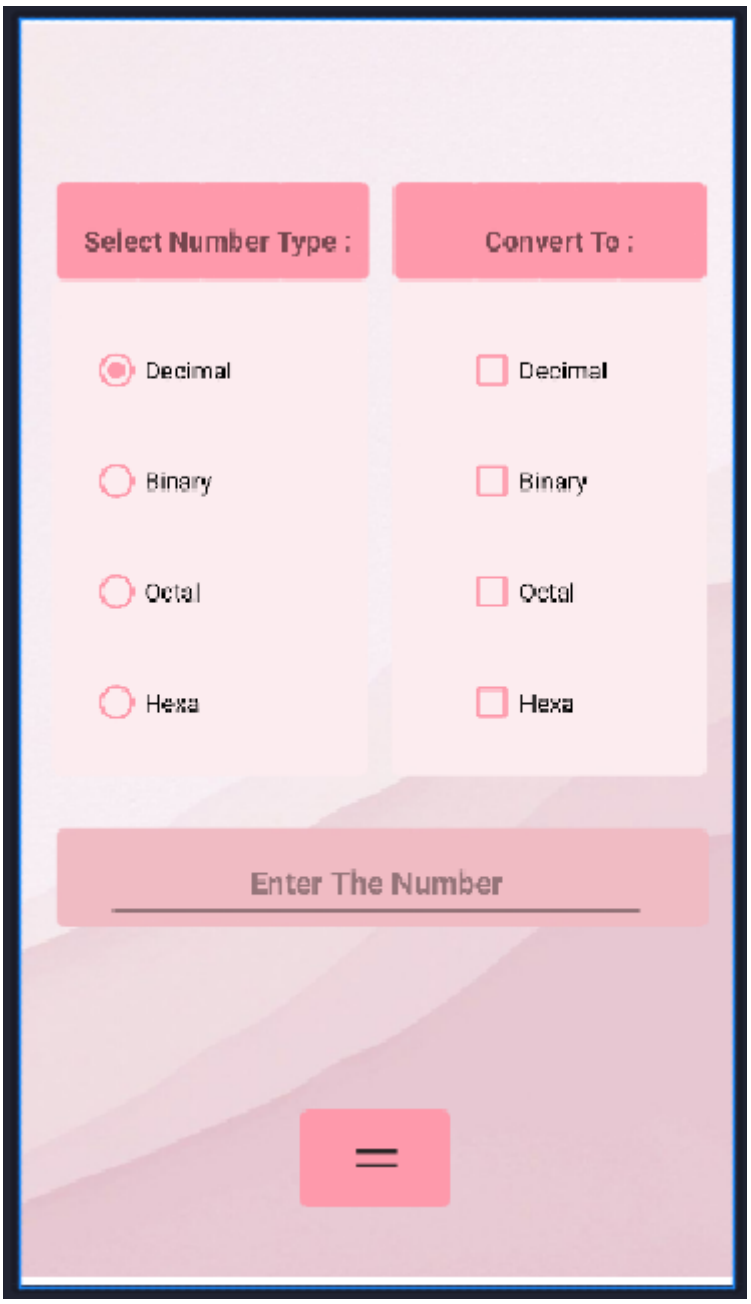
```
package com.example.number_conversion;

import androidx.appcompat.app.AppCompatActivity;

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

public class MainActivity extends AppCompatActivity {
    RadioGroup rg;
    ImageButton Submit;
    EditText Number;
    CheckBox CDecimal, COctal, CHexa, CBinary;
    RadioButton inType;


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

            rg = findViewById(R.id.rg);
            CDecimal = findViewById(R.id.CDecimal);
            CBinary = findViewById(R.id.CBinary);
            CHexa = findViewById(R.id.CHexa);
            COctal = findViewById(R.id.COctal);
            Submit = findViewById(R.id.Submit);
            Number = findViewById(R.id.Number);


            Submit.setOnClickListener(new View.OnClickListener() {
                @Override
                public void onClick(View view) {
```

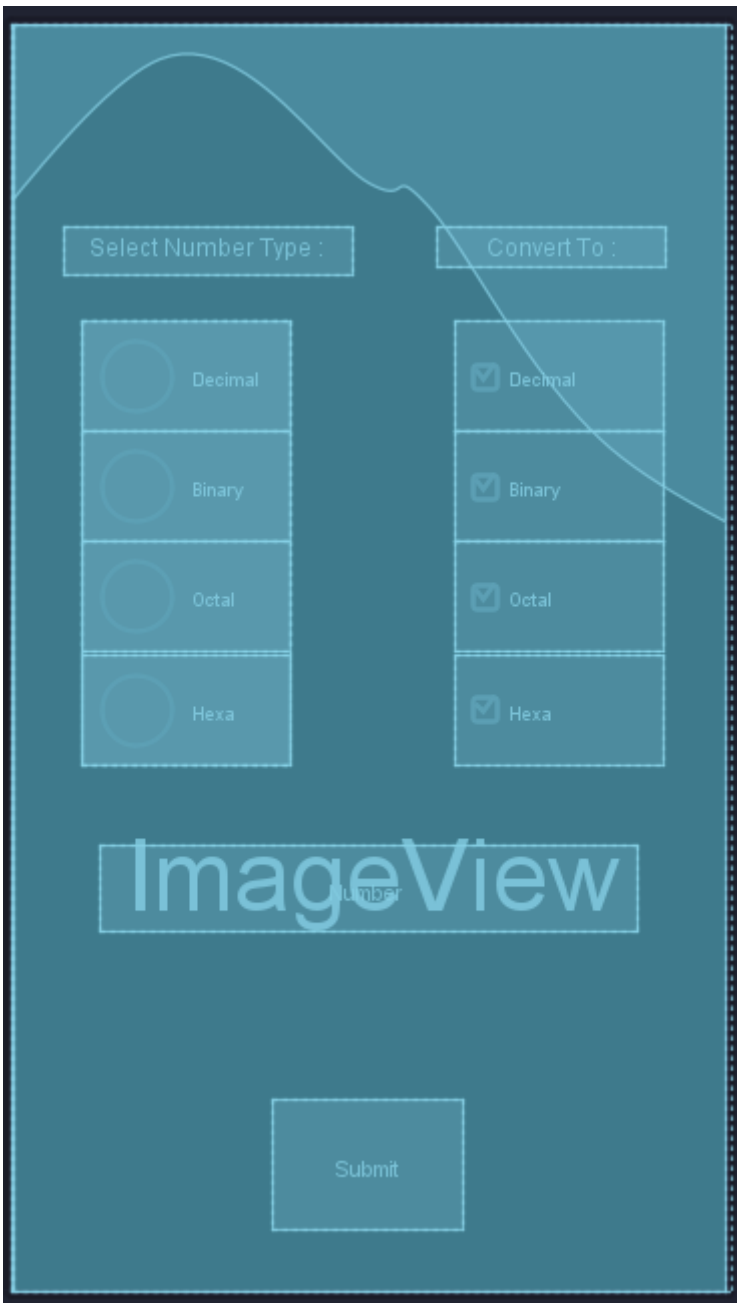
```
                inType =
(RadioButton)findViewById(rg.getCheckedRadioButtonId());
                String type = inType.getText().toString();
                String number = Number.getText().toString();

                if (type.matches("Decimal")){
                    if(CDecimal.isChecked()){
                        Toast.makeText(MainActivity.this,"Decimal conversion = " +
number + "\n",Toast.LENGTH_LONG).show();
                    }
                    if (CBinary.isChecked()){
                        String ans =
Integer.toBinaryString(Integer.parseInt(number));
                        Toast.makeText(MainActivity.this,"Binary conversion = " +
ans + "\n",Toast.LENGTH_LONG).show();
                    }
                    if (COctal.isChecked()){
                        String ans = Integer.toOctalString(Integer.parseInt(number));
                        Toast.makeText(MainActivity.this,"Octal conversion = " +
ans + "\n",Toast.LENGTH_LONG).show();
                    }
                    if (CHexa.isChecked()){
                        String ans = Integer.toHexString(Integer.parseInt(number));
                        Toast.makeText(MainActivity.this,"Hexadecimal conversion
= " + ans + "\n",Toast.LENGTH_LONG).show();
                    }
                } else if(type.matches("Binary")){
                    if(CDecimal.isChecked()){
                        String ans = Integer.toString(Integer.parseInt(number,2));
                        Toast.makeText(MainActivity.this,"Decimal conversion = " +
ans + "\n",Toast.LENGTH_LONG).show();
                    }
                    if (CBinary.isChecked()){
                        Toast.makeText(MainActivity.this,"Binary conversion = " +
number + "\n",Toast.LENGTH_LONG).show();
                    }
                    if (COctal.isChecked()){
                        String ans = Integer.toString(Integer.parseInt(number,2));
                        String integer = Integer.toOctalString(Integer.parseInt(ans));
                        Toast.makeText(MainActivity.this,"Octal conversion = " +
integer + "\n",Toast.LENGTH_LONG).show();
                    }
                    if (CHexa.isChecked()){
                        String ans = Integer.toString(Integer.parseInt(number,2));
```

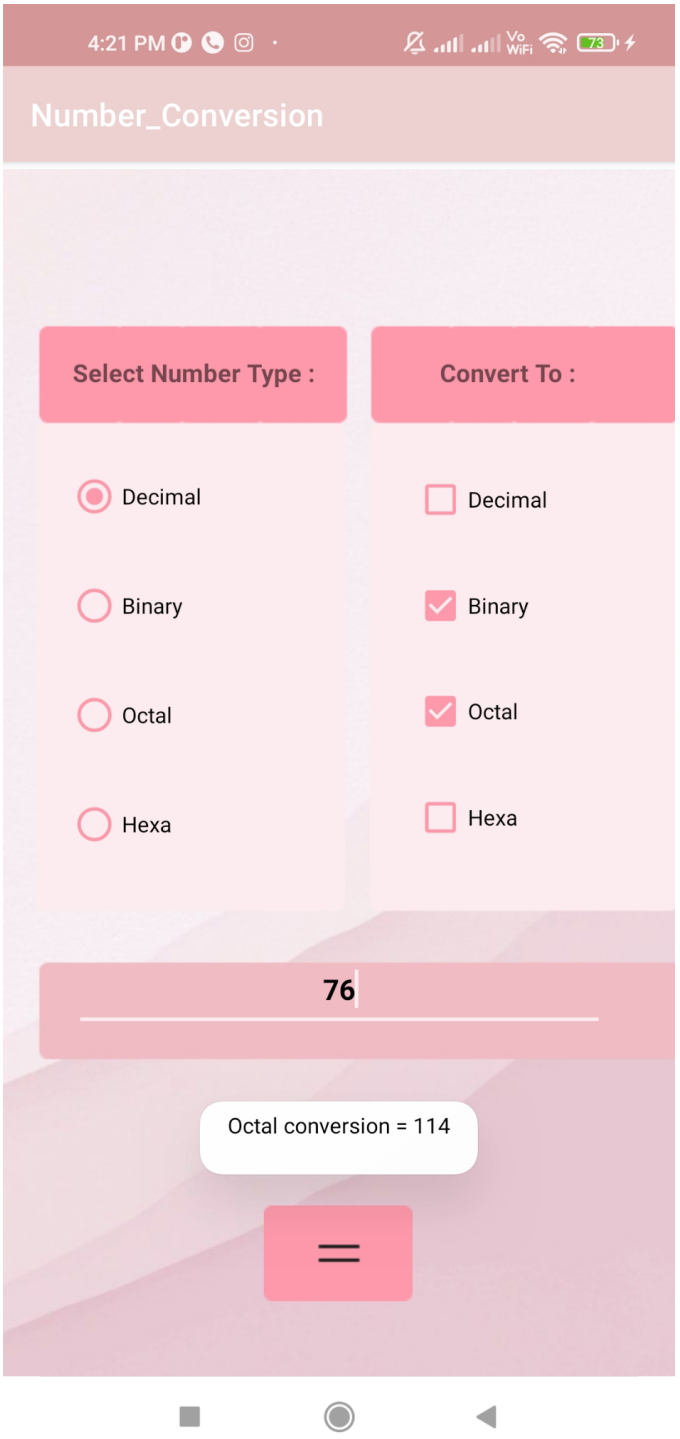
```
                    String integer = Integer.toHexString(Integer.parseInt(ans));
                    Toast.makeText(MainActivity.this, "Octal conversion = " +
integer + "\n",Toast.LENGTH_LONG).show();
                }
            } else if(type.matches("Hexa")){
                if(CDecimal.isChecked()){
                    String integer =
Integer.toString(Integer.parseInt(number,16));
                    Toast.makeText(MainActivity.this,"Decimal conversion = " +
integer + "\n",Toast.LENGTH_LONG).show();
                }
                if (CBinary.isChecked()){
                    String integer =
Integer.toString(Integer.parseInt(number,16));
                    String ans =
Integer.toBinaryString(Integer.parseInt(integer));
                    Toast.makeText(MainActivity.this,"Binary conversion = " +
ans + "\n",Toast.LENGTH_LONG).show();
                }
                if (COctal.isChecked()){
                    String integer =
Integer.toString(Integer.parseInt(number,16));
                    String ans = Integer.toOctalString(Integer.parseInt(integer));
                    Toast.makeText(MainActivity.this,"Octal conversion = " +
ans + "\n",Toast.LENGTH_LONG).show();
                }
                if (CHexa.isChecked()){
                    Toast.makeText(MainActivity.this,"Hexadecimal conversion
= " + number + "\n",Toast.LENGTH_LONG).show();
                }
            } else if(type.matches("Octal")){
                if(CDecimal.isChecked()){
                    String integer = Integer.toString(Integer.parseInt(number,8));
                    Toast.makeText(MainActivity.this,"Decimal conversion = " +
integer + "\n",Toast.LENGTH_LONG).show();
                }
                if (CBinary.isChecked()){
                    String integer = Integer.toString(Integer.parseInt(number,8));
                    String ans =
Integer.toBinaryString(Integer.parseInt(integer));
                    Toast.makeText(MainActivity.this,"Binary conversion = " +
ans + "\n",Toast.LENGTH_LONG).show();
                }
                if (COctal.isChecked()){
```

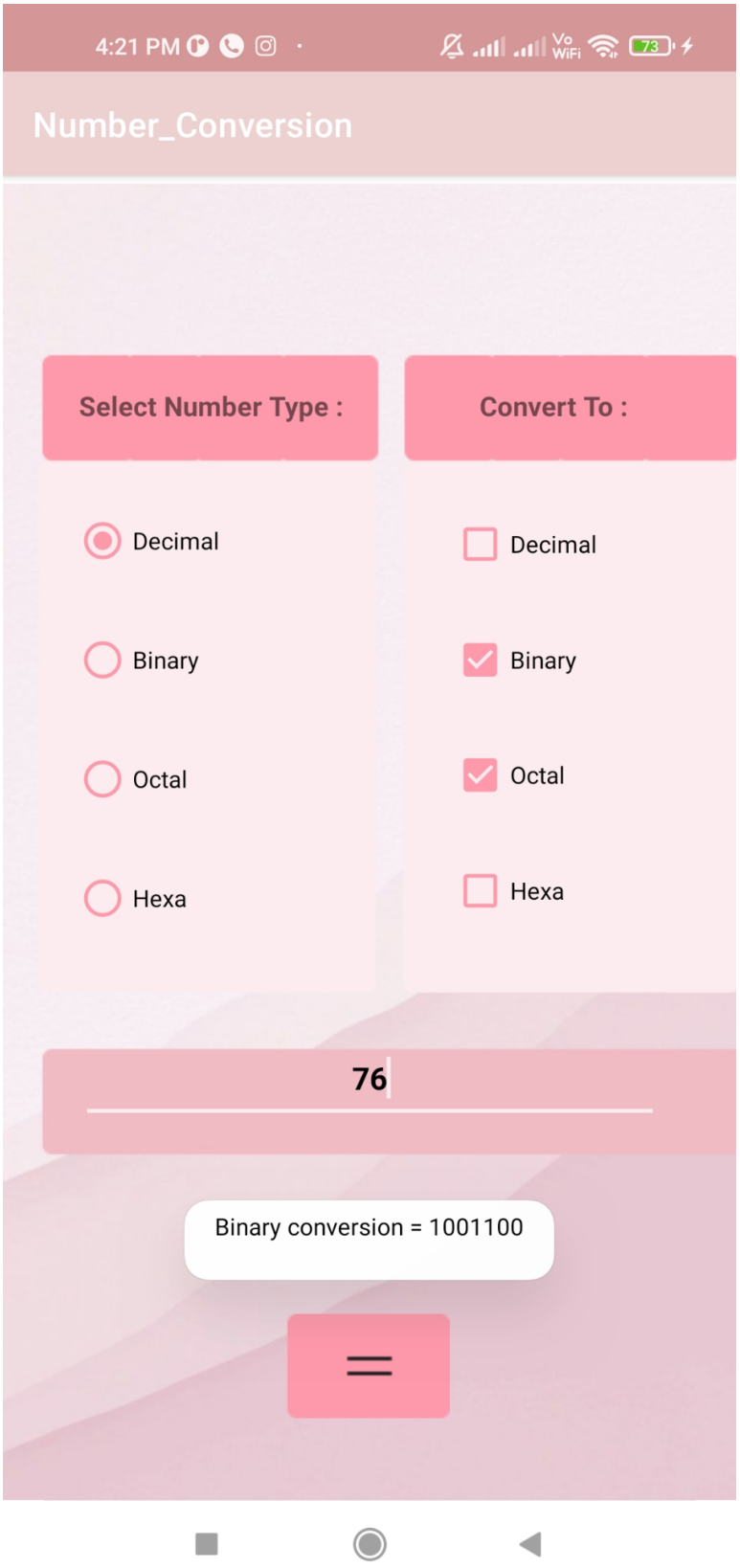
```
                    Toast.makeText(MainActivity.this,"Octal conversion = " +
number + "\n",Toast.LENGTH_LONG).show();
                }
                if (CHexa.isChecked()){
                    String integer = Integer.toString(Integer.parseInt(number,8));
                    String ans = Integer.toHexString(Integer.parseInt(integer));
                    Toast.makeText(MainActivity.this,"Hexadecimal conversion
= " + ans + "\n",Toast.LENGTH_LONG).show();
                }
            }
        }
    });
  }
}
```

Result.


Select Number Type :
Convert To :
Decimal
Binary
Octal
Hexa
Decimal
Binary
Octal
Hexa
Enter The Number
=


Select Number Type :
Convert To :
Decimal
Binary
Octal
Hexa
Decimal
Binary
Octal
Hexa
ImageView
Submit


4:21 PM
Number_Conversion
Select Number Type :
Convert To :
Decimal
Binary
Octal
Hexa
Decimal
Binary
Octal
Hexa
76
Octal conversion = 114
=


4:21 PM
Number_Conversion
Select Number Type :
Convert To :
Decimal
Binary
Octal
Hexa
Decimal
Binary
Octal
Hexa
76
Binary conversion = 1001100
=