COLLEGE ONE

```
public class MainActivity extends AppCompatActivity {
    TextView t1;
    EditText e1;
    Button b1;
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        t1=findViewById(R.id.TextView);
        e1=findViewById(R.id.EditText);
        b1=findViewById(R.id.Button);
        b1.setOnClickListener(new View.OnClickListener() {
            public void onClick(View v) {
                String s=e1.getText().toString();
                t1.setText(s);
            }
        });
    }
}
```

COLLEGE TWO (TOAST AND ADDITION)

```
public class MainActivity extends AppCompatActivity {
    EditText n1;
    Button b1,b2,b3,b4;
    TextView t1;
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        n1=findViewById(R.id.n1);
        b1.setOnClickListener(new View.OnClickListener(){
            public void onClick(View v) {
                String s1 = n1.getText().toString();
                String s2 = n2.getText().toString();
                int a = Integer.parseInt(s1);
                int b = Integer.parseInt(s2);
                int c = a+b;
                t1.setText(""+c);
                Toast.makeText(getApplicationContext(),"Answer:
    "+c,Toast.LENGTH_SHORT).show();
            }
        });
```

```
        b2.setOnClickListener(new View.OnClickListener() {
            public void onClick(View v) {
                String s1 = n1.getText().toString();
                String s2 = n2.getText().toString();
                int a = Integer.parseInt(s1);
                int b = Integer.parseInt(s2);
                int c = a-b;
                t1.setText(""+c);
                Toast.makeText(getApplicationContext(),"Answer:
    "+c,Toast.LENGTH_SHORT).show();
            }
        });
    }
}
```

COLLEGE FIVE (CHECKBOX)

```
public class MainActivity extends AppCompatActivity {
    CheckBox c1,c2,c3;
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        b1 = findViewById(R.id.b1);
        e1 = findViewById(R.id.e1);
        t1 = findViewById(R.id.t1);
        c1 = findViewById(R.id.c1);
        c2 = findViewById(R.id.c2);
        c3 = findViewById(R.id.c3);
        b1.setOnClickListener(new View.OnClickListener()
        {
            public void onClick(View view)
            {
                String n1 = e1.getText().toString();
                String hexNum1 = "";
                String hexNum2 = "";
                if(c1.isChecked()==false && c2.isChecked()==false &&
    c3.isChecked()==false)
                {
                    t1.setText(n1);
                }
                if(c1.isChecked())
                {
```

```
                    Integer dec1 = Integer.parseInt(n1);
                    String hexNum = Integer.toHexString(dec1);
                    t1.setText(hexNum);
                    hexNum1 = hexNum;
                }
                if(c2.isChecked())
                {
                    Integer dec1 = Integer.parseInt(n1);
                    String hexNum = Integer.toOctalString(dec1);
                    t1.setText(hexNum1   + '\n' +  hexNum);
                    hexNum2 =  hexNum1 + '\n' + hexNum;
                }
                if(c3.isChecked())
                {
                    Integer dec1 = Integer.parseInt(n1);
                    String hexNum = Integer.toBinaryString(dec1);
                    if(c2.isChecked())
                    {
                        t1.setText(hexNum2 + '\n' + hexNum);
                    }
                    else if(c1.isChecked())
                    {
                        t1.setText(hexNum1 + '\n' + hexNum);
                    }
                    else if(c3.isChecked())
                    {
                        t1.setText(hexNum);
                    }
                }
            }
        });
    }
}
```

COLLEGE SEVEN (SEEKBAR)

```
public class MainActivity extends AppCompatActivity {
   SeekBar s1;
   protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        s1=findViewById(R.id.s1);
        t1=findViewById(R.id.t1);
        s1.setOnSeekBarChangeListener(new SeekBar.OnSeekBarChangeListener() {
            public void onProgressChanged(SeekBar seekBar, int progress, boolean
    fromUser) {
                t1.setText(""+progress);
            }
            public void onStartTrackingTouch(SeekBar seekBar) {
            }
            public void onStopTrackingTouch(SeekBar seekBar) {
            }
        });
   }
}
```

COLLEGE EIGHT (SEEKBAR)

```
public class MainActivity extends AppCompatActivity {
   SeekBar s1, s2, s3;
   TextView t1,t2,t3,t4;
   int a,bb,c;
   protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        s1=findViewById(R.id.s1);
        s2=findViewById(R.id.s2);
        s3=findViewById(R.id.s3);
        t1=findViewById(R.id.t1);
        t2=findViewById(R.id.t2);
        t3=findViewById(R.id.t3);
        t4=findViewById(R.id.t4);
```

```
        s1.setOnSeekBarChangeListener(new SeekBar.OnSeekBarChangeListener() {
            public void onProgressChanged(SeekBar seekBar, int i, boolean b) {
                a = s1.getProgress();
                t1.setText(""+i);
                t4.setText(""+a*bb*c/100);
            }
            public void onStartTrackingTouch(SeekBar seekBar) {
            }
            public void onStopTrackingTouch(SeekBar seekBar) {
            }
        });
        s2.setOnSeekBarChangeListener(new SeekBar.OnSeekBarChangeListener() {
            public void onProgressChanged(SeekBar seekBar, int i, boolean b) {
                bb = s2.getProgress();
                t2.setText(""+i);
                t4.setText(""+a*bb*c/100);
            }
            public void onStartTrackingTouch(SeekBar seekBar) {
            }
            public void onStopTrackingTouch(SeekBar seekBar) {
            }
        });
        s3.setOnSeekBarChangeListener(new SeekBar.OnSeekBarChangeListener() {
            public void onProgressChanged(SeekBar seekBar, int i, boolean b) {
                c = s3.getProgress();
                t3.setText(""+i);
                t4.setText(""+a*bb*c/100);
            }
            public void onStartTrackingTouch(SeekBar seekBar) {
            }
            public void onStopTrackingTouch(SeekBar seekBar) {
            }
        });
    }
}
```

COLLEGE NINE (SPINNER)

```
public class MainActivity extends AppCompatActivity {
   Button b1;
   Spinner s1;
   EditText e1;
   int checkPrime(int n){
       int c =0;
       for(int i = 1; i<=n;i++){
           if(n%i==0){
               c++;
           }
       }
       return c;
   }
   int factorial(int n){
       int f=1;
       for(int i=1;i<=n;i++){
           f=f*i;
       }
       return f;
   }
   String isoddeven(int n){
       if(n%2!=0) {
           return "odd";
       }else {
           return "even";
       }
   }
   protected void onCreate(Bundle savedInstanceState) {
       super.onCreate(savedInstanceState);
       setContentView(R.layout.activity_main);
       b1=findViewById(R.id.b1);
       s1=findViewById(R.id.s1);
       e1=findViewById(R.id.e1);
       b1.setOnClickListener(new View.OnClickListener() {
           public void onClick(View v) {
               String s []={"Check Prime" , "Factorial" , "Odd/Even"};
               ArrayAdapter<String> aa = new ArrayAdapter<>(
                       getApplicationContext(),
                       android.R.layout.simple_spinner_item,s);
```

```
aa.setDropDownViewResource(android.R.layout.simple_spinner_dropdown_item);
            s1.setAdapter(aa);
            s1.setOnItemSelectedListener(new AdapterView.OnItemSelectedListener() {
                    public void onItemSelected(AdapterView<?> parent, View view,
    int position, long id) {
                        String abc = s1.getSelectedItem().toString();
                        if(abc.equalsIgnoreCase("Check Prime")){
 if(checkPrime(Integer.parseInt(e1.getText().toString()))==2){
                                Toast.makeText(getApplicationContext(),
                                        "Prime Number", Toast.LENGTH_SHORT).show();
                            }else{
                                Toast.makeText(getApplicationContext(),
                                        "Not a Prime Number",
    Toast.LENGTH_SHORT).show();
                            }
                        }
                        else if (abc.equalsIgnoreCase("Factorial")){
                            int
    x=factorial(Integer.parseInt(e1.getText().toString()));
                            Toast.makeText(getApplicationContext(),
                                    "Factorial = "+x, Toast.LENGTH_SHORT).show();
                        }
                        else if(abc.equalsIgnoreCase("Odd/Even")){
                            Toast.makeText(getApplicationContext(),
       isoddeven(Integer.parseInt(e1.getText().toString())),
                                    Toast.LENGTH_SHORT).show();
                        }
                    }
                    public void onNothingSelected(AdapterView<?> parent) {
                    }
                });
            }
        });
    }
}
```

COLLEGE TEN (SPINNER)

```
public class MainActivity extends AppCompatActivity {
   Button b1;
   Spinner s1;
   EditText e1;
   int wordCount(String n){
       int c=1;
       for (int i = 0; i <n.length(); i++) {
           if(n.charAt(i)==' ')
               c++;
       }
       return c;
   }
   int vowelCount(String n){
       n=n.toUpperCase();
       int c=0;
       for (int i = 0; i < n.length(); i++) {
           if(n.charAt(i)=='A' ||n.charAt(i)=='E' ||n.charAt(i)=='I'
    ||n.charAt(i)=='O' ||n.charAt(i)=='U' )
               c++;
       }
       return c;
   }
   protected void onCreate(Bundle savedInstanceState) {
       super.onCreate(savedInstanceState);
       setContentView(R.layout.activity_main);
       b1=findViewById(R.id.b1);
       e1=findViewById(R.id.e1);
       s1=findViewById(R.id.s1);
       String data[]={"No. of words","each word print","vowel count"};
       ArrayAdapter<String> aa=new ArrayAdapter<String>(getApplicationContext(),
    android.R.layout.simple_spinner_item,data);
       aa.setDropDownViewResource(android.R.layout.simple_spinner_dropdown_item);
       s1.setAdapter(aa);
       b1.setOnClickListener(new View.OnClickListener() {
           public void onClick(View v) {
               String z=s1.getSelectedItem().toString();
               if(z.equalsIgnoreCase("No. of words")){
                   Toast.makeText(getApplicationContext(),"No. of Words =
    "+wordCount(e1.getText().toString()),Toast.LENGTH_LONG).show();
               }
```

```
                else if(z.equalsIgnoreCase("each word print")){
                    String x=e1.getText().toString();
                    String b="";
                    for (int i = 0; i <x.length() ; i++) {
                        if(x.charAt(i)!=' ')
                            b=b+x.charAt(i);
                        else
                            b+="\n";
                    }
Toast.makeText(getApplicationContext(),b,Toast.LENGTH_SHORT).show();
                }
                else if(z.equalsIgnoreCase("vowel count")) {
                    Toast.makeText(getApplicationContext(), "Vowel Count =
    "+vowelCount(e1.getText().toString()), Toast.LENGTH_LONG).show();
                }
            }
        });
    }
}
```

COLLEGE ELEVEN (MULTIPLE SPINNER)

```
public class MainActivity extends AppCompatActivity {
    Spinner sp1,sp2;
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        sp1=findViewById(R.id.sp1);
        sp2=findViewById(R.id.sp2);
        String ele[]={"Programming Language","Operating System","Application"};
        ArrayAdapter<String> aa=new ArrayAdapter<String>(
                getApplicationContext(),
                android.R.layout.simple_spinner_item,ele);
        aa.setDropDownViewResource(android.R.layout.simple_spinner_dropdown_item);
        sp1.setAdapter(aa);
        sp1.setOnItemSelectedListener(new AdapterView.OnItemSelectedListener() {
            public void onItemSelected(AdapterView<?> parent, View view, int
    position, long id) {
                String ss=sp1.getSelectedItem().toString();
                ArrayAdapter<String> aa1=null;
                String pl[]={"C++","Java","PHP"};
                String os[]={"Windows","MacOS","Linux"};
```

```
                String ap[]={"MSWord","Paint","Notepad"};
                if(ss.equals("Programming Language")){
                    aa1=new ArrayAdapter<String>(
                            getApplicationContext(),
                            android.R.layout.simple_spinner_item,pl);
                }if(ss.equals("Operating System")){
                    aa1=new ArrayAdapter<String>(
                            getApplicationContext(),
                            android.R.layout.simple_spinner_item,os);
                }if(ss.equals("Application")){
                    aa1=new ArrayAdapter<String>(
                            getApplicationContext(),
                            android.R.layout.simple_spinner_item,ap);
                }
aa1.setDropDownViewResource(android.R.layout.simple_spinner_dropdown_item);
                sp2.setAdapter(aa1);
            }
            public void onNothingSelected(AdapterView<?> parent) {
            }
        });
    }
}
```

COLLEGE THIRTEEN (INTENT)

MainActivity.java

```
public class MainActivity extends AppCompatActivity {
    Button b1;
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        e1=findViewById(R.id.e1);
        b1.setOnClickListener(new View.OnClickListener() {
            public void onClick(View view) {
                String s = e1.getText().toString();
                String s1 = e2.getText().toString();
                Intent i = new Intent(getApplicationContext(),ActivityTwo.class);
                i.putExtra("user" ,s);
                i.putExtra("pass",s1);
                startActivity(i);
            }
        });
```

```
    }
}
```

ActivityTwo.java

```
public class ActivityTwo extends AppCompatActivity {
    TextView t3;
    Button b2;
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_two);
        t3 = findViewById(R.id.t3);
        b2 = findViewById(R.id.b2);
        Intent i = getIntent();
        String s = i.getExtras().getString("user");
        String s1 = i.getExtras().getString("pass");
        if(s.equals("admin")&& s1.equals("admin1234")){
            t3.setText("Welcome");
        }
        else
            t3.setText("Error");
        b2.setOnClickListener(new View.OnClickListener() {
            public void onClick(View view) {
                Intent i2 = new Intent(getApplicationContext(),MainActivity.class);
                startActivity(i2);
            }
        });
    }
}
```

COLLEGE SIX (RADIO BUTTON AND CHECKBOX)

```
public class MainActivity extends AppCompatActivity {
   CheckBox cb1, cb2, cb3, cb4;
   TextView t4;
   EditText e1;
   RadioButton rb1, rb2, rb3, rb4;
   RadioGroup rg;
   Button b1;
   protected void onCreate(Bundle savedInstanceState) {
       super.onCreate(savedInstanceState);
       setContentView(R.layout.activity_main);
       cb1=findViewById(R.id.cb1);
       cb2=findViewById(R.id.cb2);
       cb3=findViewById(R.id.cb3);
       cb4=findViewById(R.id.cb4);
       rb1=findViewById(R.id.rb1);
       rb2=findViewById(R.id.rb2);
       rb3=findViewById(R.id.rb3);
       rb4=findViewById(R.id.rb4);
       rg=findViewById(R.id.rg);
       b1=findViewById(R.id.b1);
       t4=findViewById(R.id.t4);
       e1=findViewById(R.id.e1);
       b1.setOnClickListener(new View.OnClickListener() {
           @Override
           public void onClick(View v) {
               String f = e1.getText().toString();
               String res = "";
               Boolean b = true;
               //Decimal RB
               if(rg.getCheckedRadioButtonId() == rb1.getId())
               {
                   if( e1.getText().toString().length() <= 0 )
                   {
                       Toast.makeText(getApplicationContext(),
                               "Please Enter a Decimal Number!",
   Toast.LENGTH_SHORT).show();
                       b = false;
                   }
                   else
                   {
```

```
                    for (int i = 0; i < f.length(); i++)
                    {
                        char A = f.charAt(i);
                        if (A == '0' || A == '1' || A == '2' || A == '3' || A
    == '4' || A == '5' || A == '6' || A == '7' || A == '8' || A == '9' || A == '.')
                        {
                            b = true;
                        } else
                        {
                            Toast.makeText(getApplicationContext(),
                                    "Please Enter a Decimal Number!",
    Toast.LENGTH_SHORT).show();
                            b = false;
                            break;
                        }
                    }
                    if (b)
                    {
                        //DTD Conversion
                        if (cb1.isChecked()) {
                            res = "Decimal: " + f + '\n';
                        }
                        //DTB Conversion
                        if (cb2.isChecked()) {
                            //(D)DTB Conversion
                            String binary = dtb(f);
                            res = res + "Binary: " + binary + '\n';
                        }
                        //DTO Conversion
                        if (cb3.isChecked()) {
                            //(D)DTO Conversion
                            String octal = dto(f);
                            res = res + "Octal: " + octal + '\n';
                        }
                        //DTH Conversion
                        if (cb4.isChecked()) {
                            //(D)DTH Conversion
                            res = res + "Hex: " + dth(f).toUpperCase();
                        }
                        if (!cb1.isChecked() && !cb2.isChecked() &&
    !cb3.isChecked() && !cb4.isChecked()) {
```

```
                                    Toast.makeText(getApplicationContext(),
                                                   "Please select at least 1 checkbox!",
    Toast.LENGTH_SHORT).show();
                                }
                    t4.setText(res);
            }
        });
    }
}
```

xml

```
<RadioGroup
    android:id="@+id/rg" >
    <RadioButton
        android:id="@+id/rb1"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:text="Decimal"
        android:textColor="#000000" />
    <RadioButton
        android:id="@+id/rb2"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:text="Decimal"
        android:textColor="#000000" />
```