

1.Sms

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

```
public class MainActivity extends AppCompatActivity {
    Button btn;
    EditText t1,t2;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        btn=findViewById(R.id.button);
        t1=findViewById(R.id.phone);
        t2=findViewById(R.id.msg);

        btn.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                String message=t2.getText().toString();
                String phone=t1.getText().toString();
                Intent i=new Intent(Intent.ACTION_VIEW, Uri.parse("sms:"+phone));
                i.putExtra("sms_body",message);
                startActivity(i);
            }
        });
    }
}
```

2.Phone

```
<uses-permission android:name="android.permission.CALL_PHONE"/>
```

```
EditText t1;
Button btn;
@Override
protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_main);
    btn=findViewById(R.id.btn);
    t1=findViewById(R.id.phone);
    btn.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View v) {
            String number=t1.getText().toString();
            Intent i=new Intent(Intent.ACTION_DIAL, Uri.parse("tel:"+number));
            startActivity(i);
        }
    });
}
```

```
}  
}
```

3.Order

```
public class MainActivity extends AppCompatActivity {  
    CheckBox pizza,burger,pepsi,coke;  
    TextView bill;  
    Button btn;  
    @Override  
    protected void onCreate(Bundle savedInstanceState) {  
        super.onCreate(savedInstanceState);  
        setContentView(R.layout.activity_main);  
        pizza=findViewById(R.id.pizza);  
        burger=findViewById(R.id.burger);  
        pepsi=findViewById(R.id.pepsi);  
        coke=findViewById(R.id.coke);  
  
        btn=findViewById(R.id.button);  
        bill=findViewById(R.id.bill);  
  
        btn.setOnClickListener(new View.OnClickListener() {  
            @Override  
            public void onClick(View v) {  
                int t=0;  
                String msg="Your total Bill \n";  
  
                if(pizza.isChecked())  
                {  
                    msg+="Pizza 200\n";  
                    t+=200;  
                }  
                if(burger.isChecked())  
                {  
                    msg+="Burger 100\n";  
                    t+=100;  
                }  
                if(pepsi.isChecked())  
                {  
                    msg+="pepsi 70\n";  
                    t+=70;  
                }  
                if(coke.isChecked())  
                {  
                    msg+="Coke 50\n";  
                    t+=50;  
                }  
  
                msg+="Total "+t+"\n";  
                bill.setText(msg);  
                Toast.makeText(MainActivity.this, "Order Placed",  
Toast.LENGTH_SHORT).show();  
            }  
        });  
    }  
}
```

```
}
```

4.Activity

```
public class MainActivity extends AppCompatActivity {

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        Log.d("LifeCycle", "OnCreate invoked");
        showToast("On start Created");
    }

    @Override
    protected void onStop() {
        super.onStop();
        Log.d("LifeCycle", "OnStop invoked");
        showToast("On Stop Created");
    }

    @Override
    protected void onPause() {
        super.onPause();
        Log.d("LifeCycle", "OnPause invoked");
        showToast("On Pause Created");
    }

    @Override
    protected void onDestroy() {
        super.onDestroy();
        Log.d("LifeCycle", "OnDestroy invoked");
        showToast("On Destroy Created");
    }

    @Override
    protected void onRestart() {
        super.onRestart();
        Log.d("LifeCycle", "OnRestart invoked");
        showToast("On Restart Created");
    }

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

5.Context

```
public class MainActivity extends AppCompatActivity {
    TextView t1;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        t1=findViewById(R.id.text);
        registerForContextMenu(t1);
    }

    @Override
    public void onCreateContextMenu(ContextMenu menu, View v, ContextMenu.ContextMenuInfo
menuInfo) {

        MenuInflater inflater=getMenuInflater();
        inflater.inflate(R.menu.m1,menu);
        super.onCreateContextMenu(menu, v, menuInfo);
    }

    @Override
    public boolean onContextItemSelected(@NonNull MenuItem item) {
        int id=item.getItemId();
        ConstraintLayout c=findViewById(R.id.body);
        if(id==R.id.green)
        {
            c.setBackgroundColor(Color.GREEN);
            return true;
        } else if (id==R.id.red) {
            c.setBackgroundColor(Color.RED);
            return true;
        }else {
            return super.onContextItemSelected(item);
        }
    }
}
```

6.color

```
public class MainActivity extends AppCompatActivity {
    Button btn;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        ConstraintLayout c =findViewById(R.id.body);
        btn=findViewById(R.id.btn);
        btn.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
```

```

        Random r=new Random();
        c.setBackgroundColor(Color.rgb(r.nextInt(256),r.nextInt(256),r.nextInt(256)
    ));
    }
    });
}
}

```

7.calci

```

public class MainActivity extends AppCompatActivity implements View.OnClickListener{
    Button b0,b1,b2,b3,b4,b5,b6,b7,b8,b9,badd,bsub,bmul,bdiv,bans,bac;
    String op1="";
    String op2="";

    String Ans="";

    String opt="";
    EditText t1,t2,t3,t4;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);

        assignID(b0,R.id.btn_0);
        assignID(b1,R.id.btn_1);
        assignID(b2,R.id.btn_2);
        assignID(b3,R.id.btn_3);
        assignID(b4,R.id.btn_4);
        assignID(b5,R.id.btn_5);
        assignID(b6,R.id.btn_6);
        assignID(b7,R.id.btn_7);
        assignID(b8,R.id.btn_8);
        assignID(b9,R.id.btn_9);

        assignID(badd,R.id.btn_add);
        assignID(bsub,R.id.btn_sub);
        assignID(bdiv,R.id.btn_div);
        assignID(bmul,R.id.btn_mul);

        assignID(bac,R.id.btn_AC);
        assignID(bans,R.id.btn_equal);

        t1=findViewById(R.id.op1);
        t2=findViewById(R.id.op2);
        t3=findViewById(R.id.ans);
        t4=findViewById(R.id.opt);

    }

    void assignID(Button btn, int id){
        btn=findViewById(id);
    }
}

```

```

        btn.setOnClickListener(this);

    }

    @Override
    public void onClick(View v) {
        Button btn = (Button) v;
        String btntxt = btn.getText().toString();

        if(btntxt.matches("[0-9]"))
        {
            if(opt.isEmpty())
            {
                op1+=btntxt;
                t1.setText(op1);
            }
            else{
                op2+=btntxt;
                t2.setText(op2);
            }

        }else{

            if(btntxt.equals("="))
            {
                if(!op1.isEmpty() && !op2.isEmpty() && !opt.isEmpty())
                {
//                    Log.d("oprea : " +op1 +op2 + opt,"done");
                    double
res=calculate(Double.parseDouble(op1),Double.parseDouble(op2),opt);
                    t3.setText(Double.toString(res));
                    op1="";
                    op2="";
                    opt="";
                    t1.setText("");
                    t2.setText("");
                    t4.setText("");
                }
            }

            if(!op1.isEmpty() || btntxt.equals("*") || btntxt.equals("-") ||
btntxt.equals("/") || btntxt.equals("+") )
            {
                opt+=btntxt;
                t4.setText(opt);
            }
            if(btntxt.equals("AC"))
            {
                op1="";
                op2="";
                opt="";
                t1.setText("");
                t2.setText("");
            }
        }
    }

```

```

        t3.setText("");
        t4.setText("");

    }

}

private double calculate(double operand1, double operand2, String operator) {
    switch (operator) {
        case "+":
            return operand1 + operand2;
        case "-":
            return operand1 - operand2;
        case "*":
            return operand1 * operand2;
        case "/":
            if (operand2 == 0) {
                // Handle division by zero error
                return Double.NaN; // Not a Number
            }
            return operand1/operand2;
        default:
            return Double.NaN; // Not a Number
    }
}
}

```

8.Index

```

<activity android:name=".MainActivity2"/>
<activity android:name=".MainActivity3"/>

```

```

public class MainActivity extends AppCompatActivity {

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

    }

    @Override
    public boolean onCreateOptionsMenu(Menu menu) {
        MenuInflater i=getMenuInflater();
        i.inflate(R.menu.m1,menu);
    }
}

```

```
        return super.onCreateOptionsMenu(menu);
    }

    @Override
    public boolean onOptionsItemSelected( MenuItem item) {
        int id=item.getItemId();

        if(id==R.id.item1){
            Intent I=new Intent(this,MainActivity2.class);
            startActivity(I);
            return true;
        } else if (id==R.id.item2) {
            Intent I1=new Intent(this,MainActivity3.class);
            startActivity(I1);
            return true;
        }
        else{
            return super.onOptionsItemSelected(item);
        }
    }
}
```