基础代码

一、运算符

```java
public class learn {
    public static void main(String[] args) {
        int a=0b1100;
        int b=0b1010;
        print("a ",a);
        print("b ",b);
        print("a&b ",a&b);
        print("a|b ",a|b);
        print("a^b ",a^b);
        print("a<<2 ",a<<2);
        print("a>>2 ",a>>2);
        print("a>>>2 ",a>>>2);
    }
    static void print(String prefix,int n){
        String s=Integer.toBinaryString(n);
        while (s.length()<4) {
            s="0"+s;
        }
        System.out.println(prefix+""+s);
    }
}
```

二、自动出题并判分

```java
import java.awt.*;
import javax.swing.*;

public class hello extends JFrame
{
    public hello(){
        init();
        setSize( 400,350 );
        setDefaultCloseOperation(EXIT_ON_CLOSE);
        setVisible( true );
    }

    public void init()
    {

        //{{INIT_CONTROLS
        setLayout(null);
        setSize(400,350);
        btnNew.setLabel("set a question");
        getContentPane().add(btnNew);
        btnNew.setBackground(java.awt.Color.lightGray);
        btnNew.setBounds(36,96,98,26);
```

```java
        btnJudge.setLabel("autoscore");
        getContentPane().add(btnJudge);
        btnJudge.setBackground(java.awt.Color.lightGray);
        btnJudge.setBounds(216,96,94,25);
        lblA.setText("text");
        getContentPane().add(lblA);
        lblA.setFont(new Font("Dialog", Font.PLAIN, 24));
        lblA.setBounds(36,24,36,36);
        lblOp.setText("text");
        getContentPane().add(lblOp);
        lblOp.setFont(new Font("Dialog", Font.PLAIN, 24));
        lblOp.setBounds(72,24,36,36);
        lblB.setText("text");
        getContentPane().add(lblB);
        lblB.setFont(new Font("Dialog", Font.PLAIN, 24));
        lblB.setBounds(108,24,33,36);
        label5.setText("=");
        getContentPane().add(label5);
        label5.setFont(new Font("Dialog", Font.PLAIN, 24));
        label5.setBounds(168,24,34,36);
        getContentPane().add(txtAnswer);
        txtAnswer.setFont(new Font("Dialog", Font.PLAIN, 24));
        txtAnswer.setBounds(216,24,85,42);
        listDisp.setFont(new Font("Dialog", Font.PLAIN, 16));
        getContentPane().add(listDisp);
        listDisp.setBounds(36,144,272,106);
        //}}

        //{{REGISTER_LISTENERS
        SymAction lSymAction = new SymAction();
        btnNew.addActionListener(lSymAction);
        btnJudge.addActionListener(lSymAction);
        //}}
    }

    //{{DECLARE_CONTROLS
    java.awt.Button btnNew = new java.awt.Button();
    java.awt.Button btnJudge = new java.awt.Button();
    java.awt.Label lblA = new java.awt.Label();
    java.awt.Label lblOp = new java.awt.Label();
    java.awt.Label lblB = new java.awt.Label();
    java.awt.Label label5 = new java.awt.Label();
    java.awt.TextField txtAnswer = new java.awt.TextField();
    java.awt.List listDisp = new java.awt.List(0);
    //}}

    class SymAction implements java.awt.event.ActionListener
    {
        public void actionPerformed(java.awt.event.ActionEvent event)
        {
            Object object = event.getSource();
            if (object == btnNew)
                btnNew_ActionPerformed(event);
            else if (object == btnJudge)
                btnJudge_ActionPerformed(event);
```

```java
        }
    }

    void btnNew_ActionPerformed(java.awt.event.ActionEvent event)
    {
        // to do: code goes here.
        a = (int)(Math.random()*9+1);
        b = (int)(Math.random()*9+1);
        int c = (int)(Math.random()*4);
        switch( c )
        {
            case 0: op="+"; result=a+b; break;
            case 1: op="-"; result=a-b; break;
            case 2: op="*"; result=a*b;break;
            case 3: op="/"; result=a/b;break;
        }
        lblA.setText(""+a);
        lblB.setText(""+b);
        lblOp.setText(""+op);
        txtAnswer.setText("");


    }

    int a=0,b=0;
    String op="";
    double result=0;

    void btnJudge_ActionPerformed(java.awt.event.ActionEvent event)
    {
        String str = txtAnswer.getText();
        double d = Double.valueOf(str).doubleValue();
        String disp = "" + a + op + b+"="+ str +" ";
        if( d == result ) disp += "correct";
        else disp += "wrost";

        listDisp.add( disp );
    }

    public static void main(String [] args)
    {
        hello f = new hello();
    }

}
```

三、画圈

```java
import java.awt.*;
import javax.swing.*;

//继承JFrame
public class hello extends JFrame{
```

```java
public static void main(String[] args) {
    JFrame frame=new hello();
    frame.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);//关闭操作
    frame.setSize(600, 600);
    frame.setVisible(true);
}
//画图
    public void paint(Graphics g)
    {
        g.drawString("circle 99", 20, 20);

        int x0=getSize().width/2;
        int y0=getSize().height/2;

        for(int r=0;r<getSize().height/2;r+=10)
        {
            g.setColor(getRandomColor());
            g.drawOval(x0-r, y0-r/2, r*2, r*2);//位置
        }
    }
    Color getRandomColor()
    {
        return new Color(
            (int)(Math.random()*256),
            (int)(Math.random()*256),
            (int)(Math.random()*256)
        );
    }
}
```