JFrame

```java
public static void main(String[] args) {
        JFrame jf = new JFrame();
        jf.setTitle("Tesing");
        jf.setSize(400, 300);
        jf.setLocation(400, 300);
        jf.setVisible(true);
        jf.setDefaultCloseOperation(WindowConstants.EXIT_ON_CLOSE);


    }
```

JDialog

```java
public static void main(String[] args) {
        JFrame jf = new JFrame();
        jf.setTitle("Tesing");
        jf.setSize(400, 300);
        jf.setLocation(400, 300);
        jf.setVisible(true);
        jf.setDefaultCloseOperation(WindowConstants.EXIT_ON_CLOSE);

        JDialog jd = new JDialog(jf);
        jd.setTitle("test");
        jd.setBounds(400, 300, 150, 200);
        jd.setVisible(true);
        jd.setDefaultCloseOperation(WindowConstants.DISPOSE_ON_CLOSE);


    }
```

JPanel

```java
        JButton jb1 = new JButton("btn1");
        JButton jb2 = new JButton("btn2");
        JPanel jp = new JPanel();
        jp.add(jb1);
        jp.add(jb2);
        jf.add(jp);
```

JButton

```java
public static void main(String[] args) {
        JFrame jf = new JFrame();
        jf.setTitle("test");
        jf.setLayout(new FlowLayout());
        jf.setBounds(400, 300, 300, 400);

        JRadioButton jrb1 = new JRadioButton("T");
```

```java
        JRadioButton jrb2 = new JRadioButton("F");
        ButtonGroup brg = new ButtonGroup();
        brg.add(jrb1);
        brg.add(jrb2);

        jf.add(jrb1);
        jf.add(jrb2);

        jf.setVisible(true);
        jf.setDefaultCloseOperation(WindowConstants.EXIT_ON_CLOSE);
    }
```

JCheckBox

```java
public static void main(String[] args) {
        JFrame jf = new JFrame();
        jf.setTitle("test");
        jf.setLayout(new FlowLayout());
        jf.setBounds(400, 300, 300, 400);

        JCheckBox box1 = new JCheckBox("Sleeping", true);
        JCheckBox box2 = new JCheckBox("Sleeping", false);
        JCheckBox box3 = new JCheckBox("Sleeping", false);
        jf.add(box1);
        jf.add(box2);
        jf.add(box3);

        jf.setVisible(true);
        jf.setDefaultCloseOperation(WindowConstants.EXIT_ON_CLOSE);
    }
```

JComboBox

```java
public static void main(String[] args) {
        JFrame jf = new JFrame();
        jf.setTitle("test");
        jf.setLayout(new FlowLayout());
        jf.setBounds(400, 300, 1000, 1000);

        JComboBox box = new JComboBox();
        box.addItem("---select your educational background");
        box.addItem("university");
        box.addItem("high school");
        box.addItem("junior high school");

        jf.add(box);

        jf.setVisible(true);
        jf.setDefaultCloseOperation(WindowConstants.EXIT_ON_CLOSE);
    }
```

JMune

```java
public static void main(String[] args) {
    JFrame jf = new JFrame();
    jf.setTitle("test");
    jf.setBounds(400, 300, 300, 400);
    jf.setLayout(new FlowLayout(FlowLayout.CENTER));

    JMenuBar jmb = new JMenuBar();
    JMenu menu1 = new JMenu("menu1");
    JMenu menu2 = new JMenu("menu2");
    JMenu menu3 = new JMenu("menu3");
    JMenuItem item1 = new JMenuItem("item1");
    JMenuItem item2 = new JMenuItem("item2");
    JMenuItem item3 = new JMenuItem("item3");
    JMenuItem item4 = new JMenuItem("item4");
    JMenuItem item5 = new JMenuItem("item5");
    JMenuItem item6 = new JMenuItem("item6");
    menu1.add(item1);
    menu1.add(item2);
    menu1.add(item3);
    menu2.add(item4);
    menu3.add(item5);
    menu3.add(item6);
    jmb.add(menu1);
    jmb.add(menu2);
    jmb.add(menu3);
    jf.add(jmb);


    jf.setVisible(true);
    jf.setDefaultCloseOperation(WindowConstants.EXIT_ON_CLOSE);
}
```

JTextField && JPasswordField

```java
public static void main(String[] args) {
    JFrame jf = new JFrame();
    jf.setTitle("test");
    jf.setBounds(400, 300, 300, 400);
    jf.setLayout(new FlowLayout(FlowLayout.LEFT));

    JTextField text = new JTextField("input name", 10);
    JLabel jl1 = new JLabel("Account");
    jf.add(jl1);
    jf.add(text);

    JPasswordField pwd = new JPasswordField("input", 10);
    pwd.setEchoChar('*');
    JLabel jl2 = new JLabel("password");
    jf.add(jl2);
    jf.add(pwd);

    jf.setVisible(true);
    jf.setDefaultCloseOperation(WindowConstants.EXIT_ON_CLOSE);
}
```

JTextArea

```java
public static void main(String[] args) {
        JFrame jf = new JFrame();
        jf.setTitle("test");
        jf.setBounds(400, 300, 300, 400);
        jf.setLayout(new FlowLayout(FlowLayout.LEFT));

        JTextArea area = new JTextArea(10, 10);
        area.setLineWrap(true);
        jf.add(area);

        jf.setVisible(true);
        jf.setDefaultCloseOperation(WindowConstants.EXIT_ON_CLOSE);
    }
```

FlowLayout

BorderLayout

GridLayout

```java
jf.setLayout(new BorderLayout());

        JButton btn1 = new JButton("btn1");
        JButton btn2 = new JButton("btn2");
        JButton btn3 = new JButton("btn3");
        JButton btn4 = new JButton("btn4");
        JButton btn5 = new JButton("btn5");

        jf.add(btn1, BorderLayout.NORTH);
        jf.add(btn2, BorderLayout.SOUTH);
        jf.add(btn3, BorderLayout.WEST);
        jf.add(btn4, BorderLayout.EAST);
        jf.add(btn5, BorderLayout.CENTER);
```

事件监听

6.1 一个事件模型中有三个对象：事件源，事件，以及监听程序。

事件监听机制：
    A：事件源　　事件发生的地方
    B：事件　　　就是要发生的事情
    C：事件处理　就是针对发生的事情做出的处理方案
    D：事件监听　就是把事件源和事件关联起来

```java
public static void main(String[] args) {
        JFrame jf = new JFrame();
```

```java
        jf.setTitle("Listener");
        jf.setBounds(400, 300, 300, 400);
        jf.setLayout(new FlowLayout(FlowLayout.CENTER));

        JTextArea area = new JTextArea(10, 18);
        area.setLineWrap(true);
        jf.add(area);
        JButton btn = new JButton("hit house");
        jf.add(btn);
        btn.addActionListener(new AbstractAction() {
            @Override
            public void actionPerformed(ActionEvent e) {
                area.append("conduct oneself well");
            }
        });

        jf.setVisible(true);
        jf.setDefaultCloseOperation(WindowConstants.EXIT_ON_CLOSE);
    }
```

```java
public class Test {
    public static void main(String[] args) {
        JFrame jf = new JFrame( title: "登陆");
        jf.setLayout(new FlowLayout(FlowLayout.LEFT));
        jf.setBounds( x: 460, y: 300, width: 300, height: 200);

        JLabel label1 = new JLabel( text: "账号:");
        JTextField usernameText = new JTextField();
        JLabel label2 = new JLabel( text: "密码:");
        JPasswordField pwdText = new JPasswordField();
        JTextField out = new JTextField("登陆状态");
        JButton button = new JButton( text: "登陆");

        jf.add(label1);
        jf.add(usernameText);
        jf.add(label2);
        jf.add(pwdText);
        jf.add(out);
        jf.add(button);
```

```
1、注册驱动
  Class.forName("com.mysql.jdbc.Driver");

2、获取链接
  jdbc:mysql://localhost:3306/test
connection = DriverManager.getConnection(url, user, password);
3、获取操作数据库的预处理对象
statement = (Statement) connection.createStatement();
4、执行SQL语句
  rs = ((java.sql.Statement) statement).executeQuery("select * from test where c_grade>60&&java_grade>60");
5、遍历结果集。封装

6、释放资源

关闭顺序要和声明顺序相反
1.关闭连接对象
2.关闭声明
3.关闭记录集
if(rs != null){
rs.close();
}
```

```java
public static void main(String[] args) {
        JFrame jf = new JFrame();
        jf.setTitle("Test");
        jf.setBounds(400, 300, 300, 200);
        jf.setLayout(new FlowLayout(FlowLayout.LEFT));

        JLabel jl1 = new JLabel("count");
        JTextField usernameText = new JTextField("", 22);
        JLabel jl2 = new JLabel("password");
        JPasswordField passwordText = new JPasswordField("", 20);
        JTextField out_ = new JTextField("log status", 26);
        JButton btn = new JButton("Login");

        jf.add(jl1);
        jf.add(usernameText);
        jf.add(jl2);
        jf.add(passwordText);
        jf.add(out_);
        jf.add(btn);


        jf.setVisible(true);
        jf.setDefaultCloseOperation(WindowConstants.EXIT_ON_CLOSE);
    }
```