

Java Programming

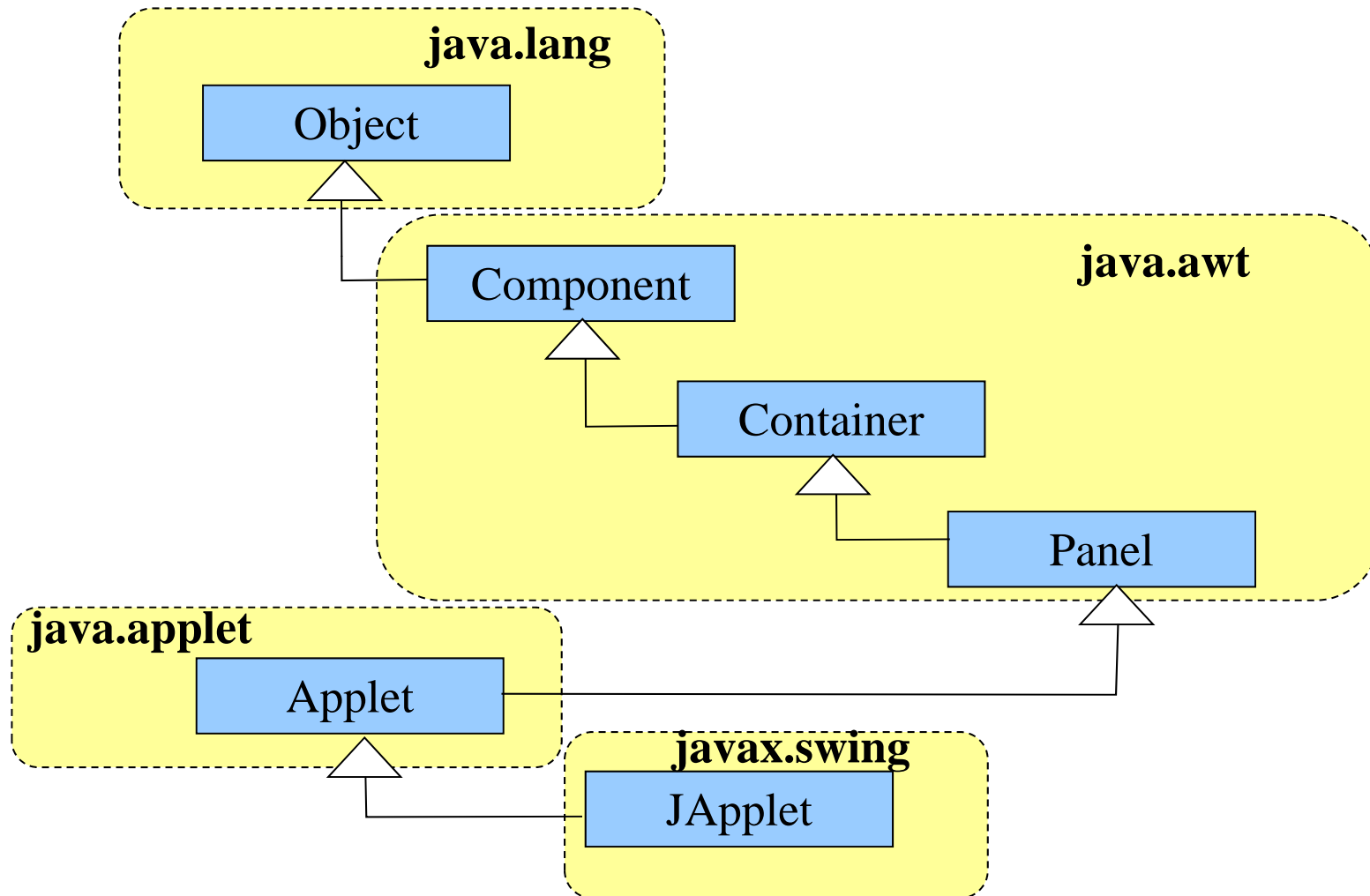
Applet

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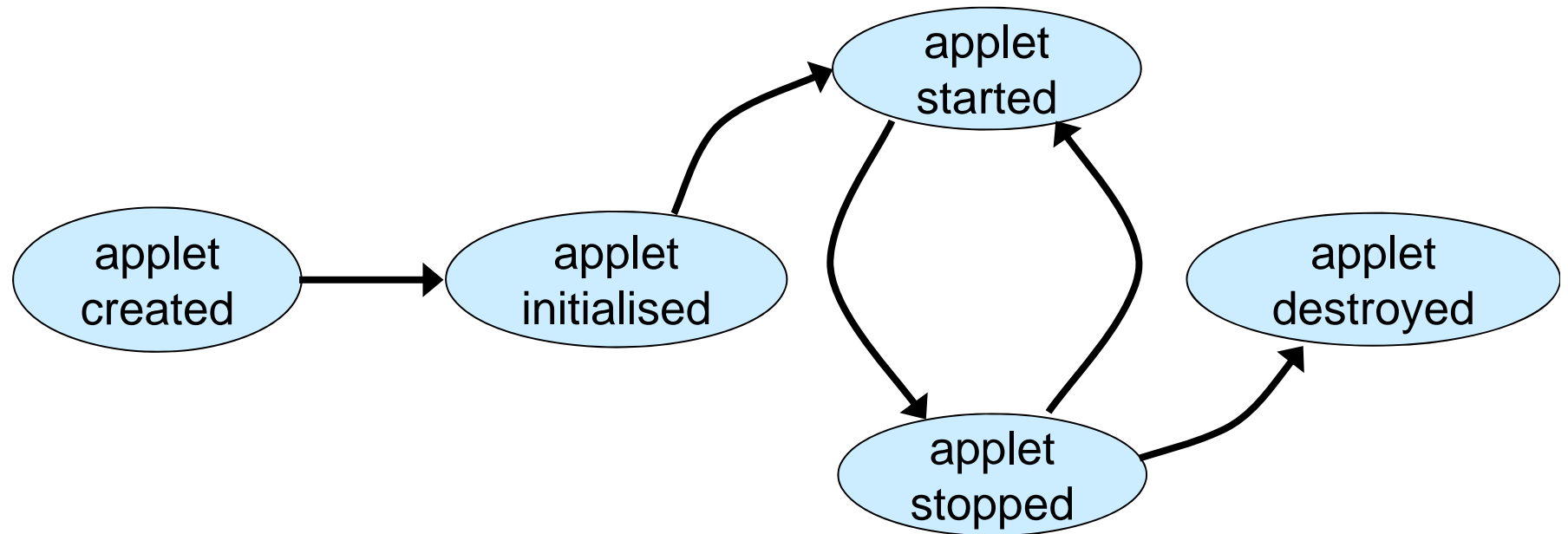
APPLET

- There are two types of Java program: **Application** and **Applet**
- An applet is usually invoked by a web browser → included in an html document
- Unlike java applications, an applet does not need the main method
- An applet follows a different life cycle:
init() → start() → stop() → destroy()

APPLET



Java Applet Life Cycle



Methods in Class JApplet

init()

- ❑ An applet receives message init() when it is created.
- ❑ If an applet receives this message, it has to do the initialisation.
- ❑ An applet received this message only once in its life time.

Methods in Class JApplet

start()

- If an applet receives the message start(), it is required to begin or start (or restart) its execution.
- Method start() should contain the codes to be executed every time an applet is started.
- An applet can receive this message more than once in its life time.
- For example, an applet which does an animation, method start() contains the code to restart certain threads.

Methods in Class JApplet

stop()

- Before the execution of an applet is stopped, the message stop() is sent first. Any codes to be executed before the applet is stopped, can be included in this method.
- Like the message start(), an applet can receive this message more than once in its life time.
- For example, for an applet that does an animation, method stop() will normally suspend the execution of its threads.

Methods in Class JApplet

destroy()

- You need to understand that an applet is still "alive" if its execution is stopped (or suspended).
- Before an applet is destroyed, message `destroy()` will be sent first. Any codes to be executed before an applet is destroyed can be included in this method.
- Example of actions included in method `destroy()`: stop the execution of all threads, close any open network, and so on.

Creating an Applet Program

- We need to create a subclass of **JApplet**
- JApplet is defined in **javax.swing**
- We need to create an html document which include applet class
- Example of simple applet (**TestApplet.java**):

```
public class TestApplet extends JApplet {  
  
    public void init() {  
        setLayout(new FlowLayout());  
        add(new JButton("Click Me"));  
    }  
}
```

Creating an Applet Program

- Write a simple HTML document, called **TestApplet.html**:

```
<HTML>
```

```
<APPLET CODE="TestApplet.class" WIDTH=200  
HEIGHT=50>
```

```
</APPLET>
```

```
</HTML>
```



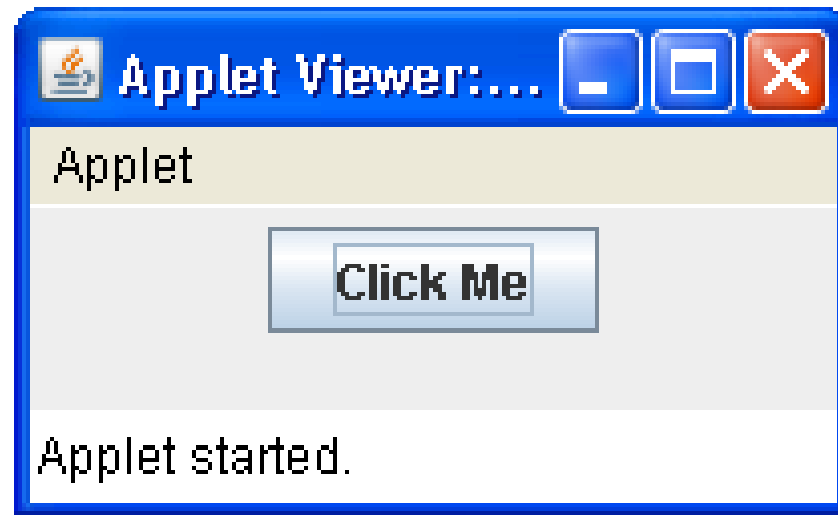
The .class file
generated after
compilation

Running a Java Applet

1. Compile the java file → a class file will be created: "TestApplet.class"
2. To run this applet in a browser, double click on the html document icon
3. To run using command line, use appletviewer,
→ `appletviewer TestApplet.html`

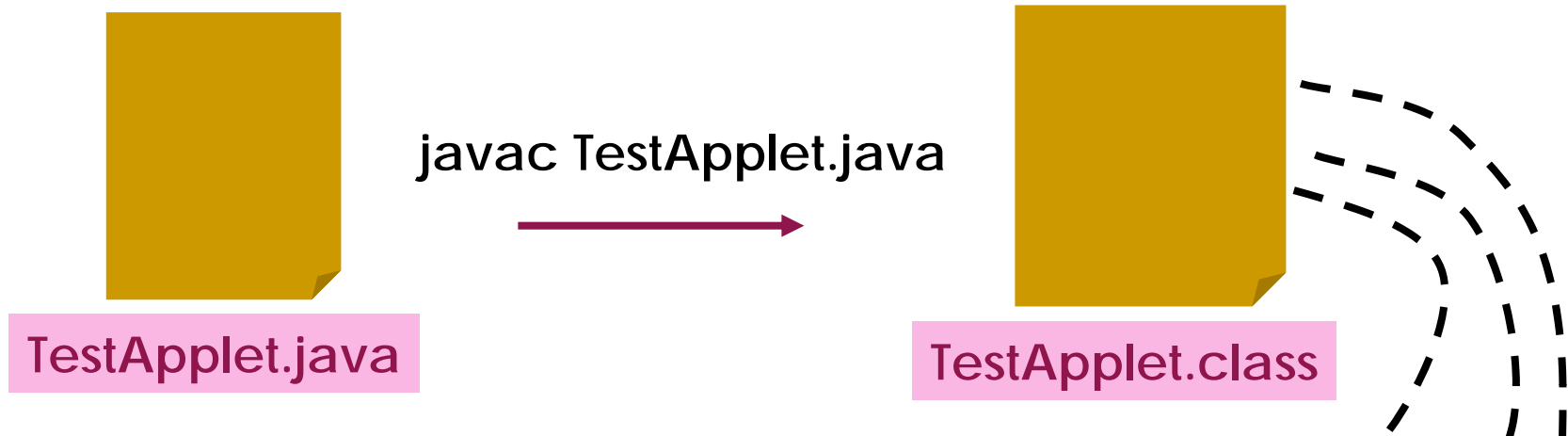
Running a Java Applet

- Using `appletviewer`

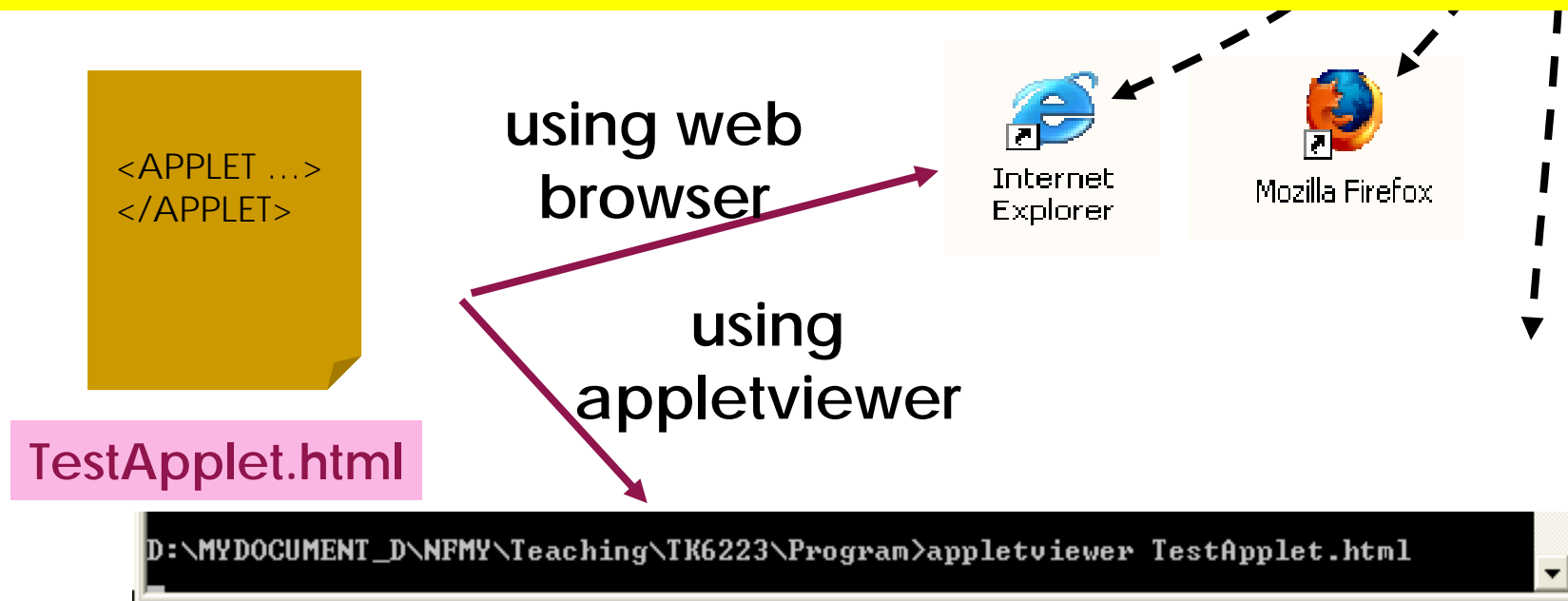


STEP 0: WRITE AN APPLLET PROGRAM AND AN HTML DOCUMENT

STEP 1: COMPILE APPLLET



STEP 2: VIEW HTML DOCUMENT TO RUN APPLLET



Questions



THANK YOU

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THE END