Java Applets

"Applets overview, architecture, skeleton "
Advanced in Programming

Shakirullah Waseeb
shakir.waseeb@gmail.com

Nangarhar University

April 19, 2017

Agenda

Agenda

Applets Overview

- A type of java application
- Applets are small programs that:
    - Accessed on internet server
    - Transport over the internet
    - Installed automatically
    - Run as a part of web document
- After an applet arrives on client has limited access to resources
- Applets do not need a main( ) method
- Applets must be run under an applet viewer or a Java-compatible browser
- User I/O is not accomplished with Java's stream I/O classes. Instead, applets use the interface provided by the AWT

Agenda

Simple Applet Example

Simple Applet

```java
import java.awt.*;
import java.applet.*;
    public class SimpleApplet extends Applet {
        public void paint(Graphics g) {
            g.drawString("A Simple Applet", 20, 20);
        }
    }
```

- The first line imports Abstract Window Toolkit (AWT), contain supports for window-based, graphical interface
- The next line imports applet package which contain Applet class
- This simple application compose only one method paint() defined by AWT and must be overridden by the Applet class
- paint( ) is called each time that the applet must redisplay its output

Running applet

- Applet program is compiled in the same way as other java programs
- But, executed differently from that of other applications and can be done in two ways
  - Executing applet within java-compatible web browser
    <applet code="SimpleApplet" width=200 height=60></applet>
  - Using an applet viewer, such as the standard SDK tool, appletviewer
    C: | >appletviewer RunApp.html

Simple Applet

```
import java.awt.*;
import java.applet.*;
/< /*applet code="SimpleApplet" width=200 height=60></applet> */
    public class SimpleApplet extends Applet {
        public void paint(Graphics g) {
            g.drawString("A Simple Applet", 20, 20);
        }
    }
```

The Applet class

- Applet class provides several methods some of them are listed below
- Applet provides all necessary support for applet execution, such as starting and stopping
- also provides methods that load and display images, and methods that load and play audio clips
  - AudioClip getAudioClip(URL url)
  - URL getDocumentBase( )
  - Image getImage(URL url)
  - void init( )
  - void play(URL url)
  - void resize(int width, int height)
  - void showStatus(String str)
  - void start()
  - void stop()

Applet architecture

- An applet is a window-based program
- Its architecture is different from the so-called normal, console-based programs
- Applets are event driven
- The user initiates interaction with an applet—not the other way around

Your Turn: Time to hear from you!

¹ unused

---
[1]`https://fensafitters.files.wordpress.com/2013/07/3d095.jpg`

References

📕 P.J. Deitel, H.M. Deitel
Java How to program, 10th Edition .
Prentice Hall, 2015.

📕 P.J. Deitel, H.M. Deitel
Java How to program, 9th Edition .
Prentice Hall, 2012.

📕 Herbert Schildt
The complete reference Java2, 5th Edition .
McGraw-Hill/Osborne, 2002.