

Homework

The following homework is designed to cover the course objectives for this unit.

Project 4

You will submit the fourth project for this course at the beginning of the next unit. Your instructor will provide you with a complete description of the projects for this course. Please refer to that for complete details.

Homework Exercise 10.1

Submit your written answers to the following 20 questions to your instructor at the beginning of Unit 11.

1. To get an ImageIcon for a specified URL, you use _____.
 - a. new ImageIcon(url);
 - b. getImage(url)
 - c. createImage(url)
 - d. url.getImage()
 - e. url.createImage()
2. To retrieve an HTML parameter named message, you write the following code in the init() method (multiple answers):
 - a. String s = getParameter("message");
 - b. String s = getParameter("MESSAGE");
 - c. String s = Parameter("message");
3. Java applications and applets both _____.
 - a. are executed from the HTML file
 - b. are compiled using the javac command
 - c. have a main() method
 - d. are executed using the java command

4. When you run the following applet from a browser, what is displayed?

```
import javax.swing.*;

public class Test extends JApplet {
    public Test() {
        System.out.println("Default constructor is invoked");
    }

    public void init() {
        System.out.println("Init method is invoked");
    }
}
```

- a. Init method is invoked, and then Default constructor is invoked.
 - b. Default constructor is invoked.
 - c. Default constructor is invoked, and then Init method is invoked.
 - d. Init method is invoked.
5. If your applet does not have the `init()` method, which of the following will happen?
- a. Your program will compile but not execute.
 - b. Your program will not compile.
 - c. Your program will run just fine because the `init()` method is defined in the Applet class.
 - d. You must have a main method.
6. The _____ method is executed when the page becomes inactive.
- a. `stop()`
 - b. `init()`
 - c. `destroy()`
 - d. `start()`
7. To draw the image `im` to fill in the whole viewing area, you use _____.
- a. `drawImage(im, 0, 0, getSize().width, getSize().height)`
 - b. `drawImage(im, 10, 10)`
 - c. `drawImage(im, 0, 0, this)`
 - d. `drawImage(im)`

8. To repeatedly play an instance of audio clip ac, you use _____.
- a. ac.repeating()
 - b. ac.repeat()
 - c. ac.continue()
 - d. ac.loop()
9. To use an applet in the HTML document, you use _____ in the <applet> tag.
- a. .java source code file
 - b. .exe executable file
 - c. .class bytecode
 - d. .html file

10. Suppose you pass parameter named message from HTML to the following applet. Analyze the code:

```
import javax.swing.*;  
  
public class Test extends JApplet {  
    public Test() {  
        String message = getParameter("MESSAGE");  
        add(new JLabel(message));  
    }  
}
```

What will happen when the code is executed?

- a. The program runs fine and displays the label with the message passed from the HTML file.
 - b. The program has a runtime error because you cannot invoke getParameter("MESSAGE") from the constructor.
 - c. The program has a syntax error because you cannot invoke getParameter("MESSAGE") from the constructor.
 - d. The program has a syntax error because parameter names are case-sensitive. You should replace MESSAGE with message.
11. The HTML tags are enclosed within _____.
- a. curly brackets
 - b. angle brackets
 - c. parentheses
 - d. square brackets

12. Which of the following HTML tags will specify an HTML parameter named message with the value "Welcome to Java"?
- a. `<param name=message value="Welcome to Java">`
 - b. `<param name=message, value="Welcome to Java">`
 - c. `<param name=message, value=Welcome to Java>`
 - d. None of the above
13. If you try to retrieve an HTML parameter that is not defined in the HTML page, what will happen?
- a. You will get a syntax error.
 - b. Your program will run with the parameter's value null.
 - c. You will get a runtime error.
 - d. Your program will run with an empty string in the parameter's value.
14. When you run an applet, which of the following is invoked first?
- a. The stop method
 - b. The destroy method
 - c. The applet's default constructor
 - d. The init method
 - e. The start method
15. You can use the method _____ to create an Image from a file "image/us.gif" in the same directory of the this class.
- a. `ImageViewer.createImageIcon("image/us.gif", null)`
 - b. `ImageViewer.createImage("image/us.gif", null)`
 - c. `ImageViewer.createImage("image/us.gif", this)`
 - d. `ImageViewer.createImageIcon("image/us.gif", this)`
16. Which of the following statements is true?
- a. You must always provide a main method for an applet.
 - b. Any applet must be an instance of `java.awt.Applet`.
 - c. You must always override the `init` method in an applet.
 - d. You must always provide a no-arg constructor for an applet.
17. The default layout of the `ContentPane` of a `JApplet` is _____.
- a. `GridLayout`
 - b. None
 - c. `FlowLayout`
 - d. `BorderLayout`

18. The _____ is a special file that contains information about the files packaged in a JAR file.
- a. class file
 - b. source file
 - c. manifest file
 - d. text file
19. To obtain an instance of Image from an ImageIcon, use _____.
- a. `Image image = ImageIcon.getImage();`
 - b. `Image image = ImageIcon.createImage();`
 - c. `Image image = ImageIcon.createImage();`
 - d. `Image image = ImageIcon.getImage();`
20. The method that executes immediately after the `init()` method in an applet is _____.
- a. `stop()`
 - b. `run()`
 - c. `start()`
 - d. `destroy()`