

Which of the following is used to execute the bytecodes of a java application? JRE

Which layout simply doesn't display components if they don't fit in the allowed space? Flow

you read the statement in a java app that compiles and executes
Integer.parseInt(tmp); what can you say for sure? parseInt is class variable / static field

The Java virtual machine is: none of these

Which of the following displays a dialog that allows the user to select a file to be used: showOpenDialog

Which class is used to represent a GUI application window, which can have a title bar, an icon and menus and can be resized? JFrame

In this layout manager, components are positioned into one of five logical sections BorderLayout

Which of the following is false regarding bytecodes? They contain statements written in the Java language

When the Java virtual machine tries to execute a Java application, it looks for a method named main.

Which Java layout manager displays all of the components as the same size? GridLayout

APPROVE_LAYOUT: NONE

ActionListener: None

Y isn't initialized, program won't compile

Execute a program with 5 variables: Java test 1 2 3 4 5

^^program output: 1 5

Declare a constant: final float
MN_SALES_TAX = .075;

Print Pay Rate \$5.00 :printf("Pay Rate
\$%5.2f" payRate);

Convert string to an integer: int tmp =
Integer.parseInt(tmp);

Provide Java statements for that create an object call myChooser of type
JFileChooser. JFileChooser myChososer
= new JFileChooser()

List and explain the swing components that are used to create menus. JMenu – an implementation of a menu.
JMenuBar – an implementation of a menu bar. JMenuItem – an implementation of a item in a menu bar.

1. Because Text is a property, you cannot change the text of the label by stating lblGreeting.Text = "Hello";. Rather, you would need to use a method to set the text of the label. You can accomplish this by stating, lblGreeting.setText("Hello");.

3. public void setSalary (float tmpSalary){

empSalary = tmpSalary;

}

4. public float getSalary(){

return empSalary;

}

5. private float empSalary;

6.

a. public class EmployeeTest

{

public static void
main(String[] args)

{

Employee e1 =
new Employee();

Employee e2 =
new Employee("123-45-6789");

Employee e3 =
new Employee("123-45-6789", "Joe
Smith");

} // end main

} // end class

b.

public class Employee

{

private String empSSN,
empName;

public Employee(){

}

public Employee(String
tmpSSN){

empSSN =

tmpSSN;

}

public Employee(String
tmpSSN, String tmpName){

empSSN =

tmpSSN;

empName =

tmpName;

}

} // end class

7.

public class EmployeeTest

{

LinkedList<Employee>
empList = new
LinkedList<Employee>();

Employee highEmp = new
Employee();

empList.add(e1);

empList.add(e2);

empList.add(e3);

for (Employee tmpEmp :
empList)

{

if (
tmpEmp.getSalary() >
highEmp.getSalary()){

highEmp =
tmpEmp;

}

}

System.out.println("The
employee with the highest salary: " +

highEmp.getName());

} // end class

8.

a) The java source file must end in .java. The name of the java source file must be the same as the created class.

Ex: Employee.java, file contains public class Employee{ }

b) We need to invoke the compiler to translate the java source file.

Ex: javac Employee.java

c) After invoking the compiler the result is the java source file translated into bytecodes. There is now a file named employee.class, which contains the bytecodes.

d) The program is executed with the Java virtual machine (JVM), which executes Java bytecode. The JVM can be installed on numerous OS's, (Windows, Linux, Mac) and be called as follows:

Ex: Java Employee

Absolute Layout: Allows you to position each control absolutely on the container

BorderLayout: Default for Content panes (main containers in JApplet, JDialog, JFrame objects) Components are positioned into one of five logical sections (PAGE_START, PAGE_END, LINE_START, LINE_END, CENTER). In this layout, the component that requires the most space should be placed in the center. Usually, the interface will only use 3 of the 5 regions in this layout.

BoxLayout: used to, Display a few components in a row or column. Provides for varying the amount of space between components. Provides for custom alignment of components. Provides for custom component sizes. Note: if you use this to display a component in as much space as it can get, make sure to specify very large #s for the preferred and maximum sizes of that component.

FlowLayout: this is the default for JPanel objects. Simplest of the layout managers. Used to display a few components in a single row (this is the only practical use for this layout). Starts a new row when necessary (depending on how the user is re-sizing the screen, etc.), as long as there is vertical space to do this -- won't do this if used with another container that uses a layout that respects "preferred height". If all of the components don't fit -- doesn't care (just hides those that won't fit).

GridLayout: used to display a few components (all the same size) in rows and columns. Even if you specify the # of rows and columns for this layout, only ONE of these will be used. Setting one of the values (rows or columns) to ZERO means any number of (NOTE -- don't specify zero for both rows and columns - it generates an exception). Example: if you want OK and Cancel buttons to be the same size, use a panel with a single-row GridLayout. Also used to display a single component in as much space as it can get

Quiz 1) Java programs go through 5 phases: Edit, Compile, Load, Verify, Execute. The class loader reads: .class files. Java is compiled into: ByteCodes. Suppose someone creates a Java class called HelloWorld and names the file HelloWorldEx.java. What is the problem? The class name must match the filename so this won't work. The process of building an object of a class before a program can perform the tasks that the class's methods define is called: Instantiation. If you want the user to provide input to your application via the keyboard: Use the Scanner class methods from Java's class libraries. An import declaration: Is used to help the compiler locate a class that's used in an application. Class names in Java, by convention: Start with a capital letter and use camelcase. Java's API: Contains a set of predefined class, is also called that Java class library, and Groups related classes into packages. Which of the following is TRUE about the Java virtual machine: It contains the Java Runtime Engine, the APIs, and the Java class libraries. **Quiz 2)** In a Swing application using BorderLayout, which of the following is the correct statement to place a label in the top area of a panel? myPanel.add(lblGreet, BorderLayout.NORTH). Which of the following is an appropriate class statement for a Swing application? Class Ex1 extends JFrame. In a Swing application, components are added: to the content pane. Java Swing has several top-level container classes. These include: JFrame, JDialog, JApplet, NOT JPanel. Which of the following is NOT TRUE about JFrame's 'EXIT_ON_CLOSE'? It is: a field, a constant, sets default behavior when a frame is closed, it is NOT a method. In the following statement, the JFrame on the right side of the assignment statement: invokes the constructor. Java programs that use Swing must have at

least two top-level containers – a frame and a content pane: False. Every top-level container: can have a menu bar AND has a content pane. What must be done when you want to handle an event from the user (i.e. a click or double-click)? Add "implements ActionListener" to the class heading. **Quiz 3)** The constructor of a class: is required to be called for every object that is created. Which of the following is the appropriate entry in a UML diagram for a default constructor of class Employee? <<constructor>> Employee(name: String). If a class is written without a constructor: the compiler provides a default constructor with parameters to initialize the members of the class. Suppose a class called Employee contains 3 data members – ID, name, and salary. What can be said about those when an instance of Employee called e1 is created? ID and name are initialized automatically to the null string, and salary is initialized to 0.0 automatically. Which of the following are TRUE about Java's double type? they require twice as much memory as float variables, the provide 15 significant digits, the compiler treats floating-point literals in the source code as double by default, NOT in contrast to floating point numbers, doubles are always precise. Which of the following is the appropriate entry in a UML diagram for a data member of class Employee named salary that is encapsulated within the class? +salary(name : Employee). If the programmer provides a constructor to a class, the compiler does not provide a default constructor: True. Which of the following is TRUE about the code shown? public static void main(String[] args){ int x; }; x is NOT an instance variable, NOT initialized to 0 by default, NOT a local variable initialized to 0 by default. Members of a class are typically: declared private. For precise floating-point numbers, Java provides a class in the package java.math called: BigDecimal.