Cloud Computing Final Exam Review

Chapter 1 ~ 4

Some questions come from **mid-term exam**

Part 1. Vocabulary

Write the letters

Don’t put more than one answer

The same as mid-term

Part 2. True or False

Put T and F instead of words

Only one answer

Part 3. Multiple Choices

Some questions have 5 choices

Part 4. Essay Questions

Four questions here

Exercise 1:

Employee Employee2 = new Employee();

//Assign Employee2 to use the same memory space as Employee1

Employee2 = Employee1;

//One object is dereferenced, hence can be garbage collected

Exercise 2:

Multidimensional Arrays in Java

1. Multidimensional arrays are arrays of arrays.
2. To declare a multidimensional array variable, specify each additional index using another set of square brackets.

Int array2D[][] = new int[4][5];

Exercise 3:

array2D[0] = new int[5];

array2D[1] = new int[4];

array2D[2] = new int[3];

Exercise 4:

class Counter {

private int data;

Counter(int var) {

data = var;

}

public void increment() {

++this.data;

}

public int getData() {

Return this.data;

}

}

Exercise 5:

class Counter3 {

private static int data;

Counter(int var) {

data = var;

}

public void increment() {

++data;

}

public int getData() {

Return data;

}

}

//Which kind of error?

Exercise 6:

What is the Java coding for this class representation?

|  |
| --- |
| Employee |
| sName: String  dIncome: Double |
| getAllowance ( dAmount: double )  getSalary ( dAmount: double )  printIncome() |

Method Overloading:

class Rectangle {

    void Rectangle() {}

    void Rectangle(double w, double h) {}

    void Rectangle(int w, int h) {}

    void Rectangle(int w) {}

    void Rectangle(int h, int w) {} //NOT RIGHT

    float Rectangle(int h, double w) {}

    float Rectangle(double w, double h) {} //NOT RIGHT

}

Different in **signature**: number of parameters, type of parameters, order of parameters

Abstract:

1. Sometimes when we design a **base class**, we may want to write a method **without any body**.
2. Such methods are called abstract methods and are to be qualified using the keyword abstract.

Interfaces:

1. An interface is similar to an abstract class whose methods are all abstract.
2. Only method declaration is provided but no functionality.
3. A class can implement an interface using the keyword “implements”.

Static:

1. Static method can not access non-static variables.
2. Non-static (instance) method can access static data.
3. That means the static method will not contain a **this** reference.

Array:

Array in Java is static and homogeneous data structure.

OOP:

Encapsulation / Inheritance / Polymorphism

Variable & Scope

Member Variables (Variable inside a class or an object)

Every variable needs its own space in memory during calling method.

Reference Types

A reference is called a pointer, or a memory address in other languages.

Advantages on cloud storage, external hard drive and USB keys / SD cards

IT / IT Department