

Unit 10_010.010 – The Object Class

Video Length 13:20

1. Why is the Object class important?
2. What does the `.toString()` method do? Why is it considered a "magic method?"
3. What data type does the `.hashCode()` method return?
4. What data type does the `.equals()` method return? How does the `.equals()` method relate to the `.hashCode()` method?

Unit 10_010.020 – The Namespace Problem

Video Length 8:28

5. What is a Namespace?
6. Why can variables have the same name in different methods?
7. When is it OK for two methods to have the same name (and signature)?

Unit 10_010.030 – Packages and Classes

Video Length 14:15

8. In the following url, "woz" is the name of a server. Identify the TLD, SLD, and the subdomain.

`https://woz.csmp.missouriwestern.edu`

9. Suppose you work for a company that used the subdomain `code.ajax.com`. How would you start the package names for your company?

Unit 10_010.040 – Creating a Class

Video Length 5:15

10. What is the base name for packages you create in this course?
11. What file do you right-click on in order to make a package in the current project?

Unit 10_010.050 – Fields and toString

Video Length 14:20

12. Are the variables representing the fields declared inside a method?
13. Are the fields declared static?
14. Is the toString() method static?
15. What is the return type of the toString method?
16. What are the parameters of the toString method (trick question!)
17. Does the toString() method print?
18. Is it normal to put a
n at the end of the string that is returned by toString()?
19. What String method may be used to format the output for the String

Unit 10_010.055 – Users

Video Length 8:35

20. In the context of this course, who is the "User?"

Unit 10_010.060 – Setters

Video Length 13:05

21. What does the reserved word "this" mean in Java?
22. Assume that we added a field called "capital" which is a string. Write the setter needed for the capital field. You do not need to do any error checking. Be sure your method meets all the criteria on the left. (The items on the left may also be the basis of test questions.)
- the setter is public
 - the setter is NOT static
 - the setter returns void
 - the name starts with set
 - the name ends with the field name
 - the parameter is the same type as the field
 - the parameter has the same name as the field
 - this identifies the class variable

Unit 10_010.070 – Getters

Video Length 2:20

23. Assume that we added a field called "capital" which is a string. Write the getter needed for the capital field. Be sure your method meets all the criteria on the left. (The items on the left may also be the basis of test questions.)
- the getter is public
 - the getter is NOT static
 - the getter returns data type of the field
 - the name starts with get
 - the name ends with the field name
 - there is no parameter
 - the body of the method is probably a single return statement.

Unit 10_010.080 – Constructors

Video Length 15:20

24. Answer each of the following regarding constructors:

- Should constructors be public (yes/no)
- What is the return type of a constructor? _____ (warning: This is a ~~trick~~ technical question.)
- Constructors must be named like the name of the class, including capitalization. yes or no
- If the programmer does not specify a constructor, what happens?
- If the programmer specifies a constructor, is the noarg constructor supplied by java? yes or no

25. What is the "noArg constructor?"

26. Suppose there is a constructor defined as follows. Write the constructor that sets only a name, and sets the distance to Double.POSITIVE_INFINITY

```
public Star(String name, double distance){...}
```

Unit 10_010.85 – Java Bean

Video Length 5:10

27. Does a Java Bean need a default constructor?

Unit 10_010.090 – JavaDoc

Video Length 5:15

Not much to ask questions here. Just don't forget the JavaDoc!

Unit 10_010.100 – Array of Objects

Video Length 17:30

This video and the next one will be important for this week's assignment.

28. Write the code needed to create an array of Widgets. Assume there is a constant called MAX_WIDGETS. (Your answer should just be one line of code with a couple of pairs of square brackets in it.)
29. Write a complete method needed to print an array of widgets. Assume there are n widgets in the array.

Unit 10_010.110 – Finding the maximum

Video Length 9:32

30. The assignment asked you to find the maximum value. Write a method to find the minimum? Circle the changes you needed to make.

Please write any lingering questions you have here.