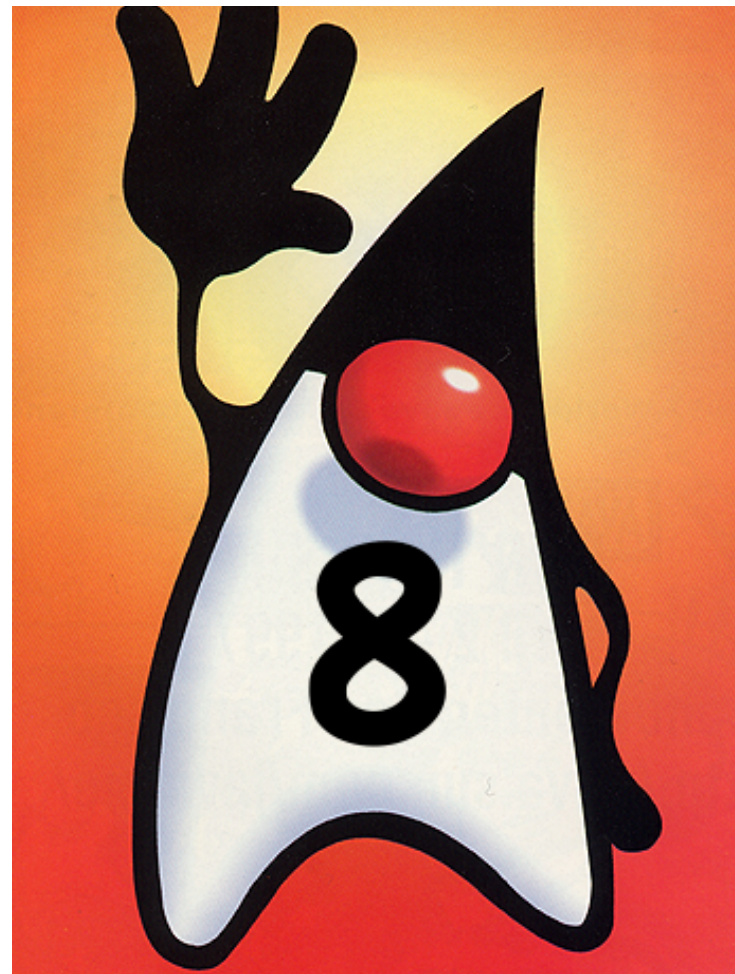


# Cracking OCA/OCP Java 8 Exams

Ganesh S G | Hari Kiran

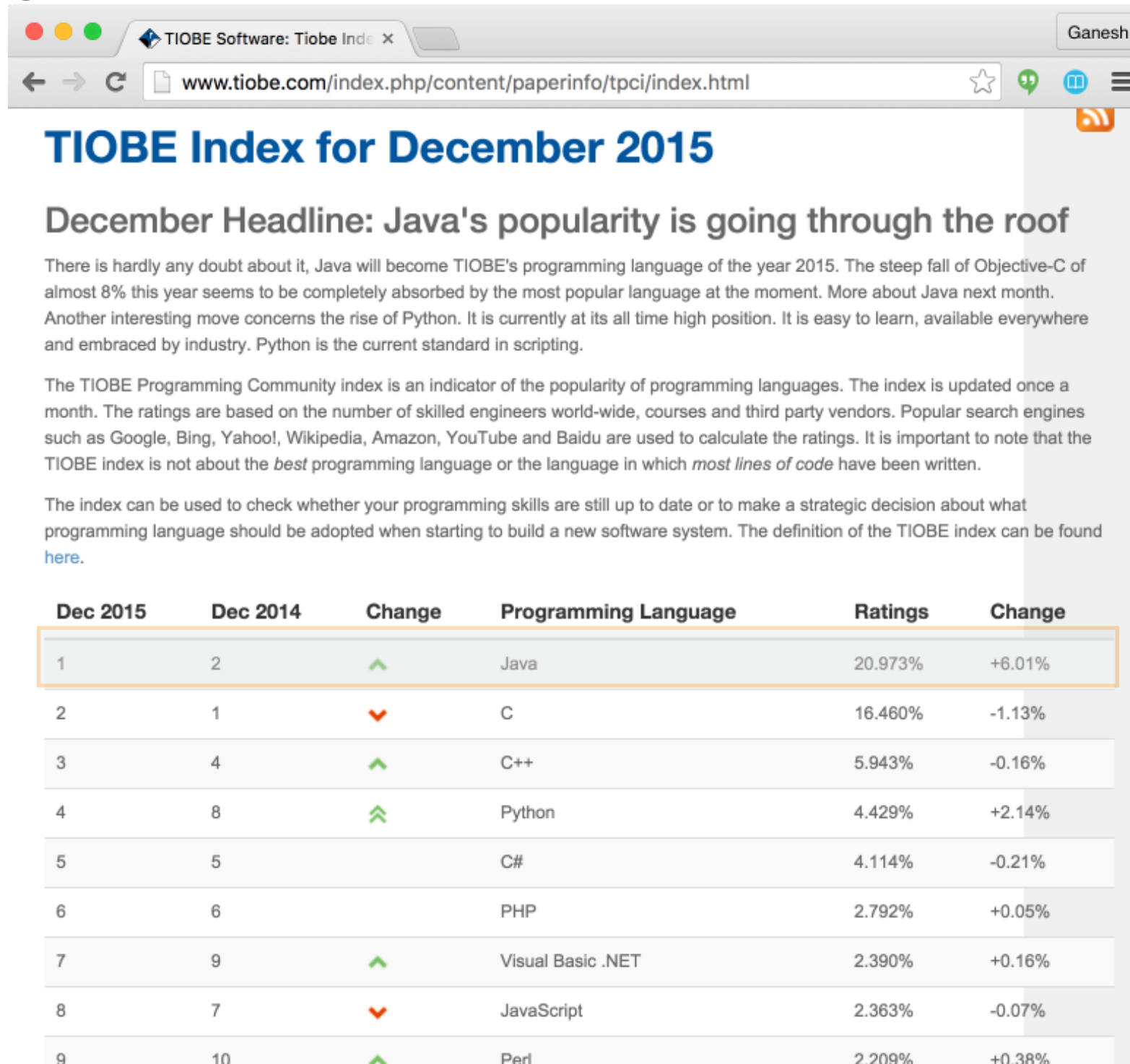


# Why Get Certified?

- The key to get a job, hike or promotion is to show you deserve it
- Certification is a means to show that you've relevant knowledge and skills



# Why Java certification?



**TIOBE Index for December 2015**

**December Headline: Java's popularity is going through the roof**

There is hardly any doubt about it, Java will become TIOBE's programming language of the year 2015. The steep fall of Objective-C of almost 8% this year seems to be completely absorbed by the most popular language at the moment. More about Java next month. Another interesting move concerns the rise of Python. It is currently at its all time high position. It is easy to learn, available everywhere and embraced by industry. Python is the current standard in scripting.

The TIOBE Programming Community index is an indicator of the popularity of programming languages. The index is updated once a month. The ratings are based on the number of skilled engineers world-wide, courses and third party vendors. Popular search engines such as Google, Bing, Yahoo!, Wikipedia, Amazon, YouTube and Baidu are used to calculate the ratings. It is important to note that the TIOBE index is not about the *best* programming language or the language in which *most lines of code* have been written.

The index can be used to check whether your programming skills are still up to date or to make a strategic decision about what programming language should be adopted when starting to build a new software system. The definition of the TIOBE index can be found [here](#).

| Dec 2015 | Dec 2014 | Change | Programming Language | Ratings | Change |
|----------|----------|--------|----------------------|---------|--------|
| 1        | 2        | ▲      | Java                 | 20.973% | +6.01% |
| 2        | 1        | ▼      | C                    | 16.460% | -1.13% |
| 3        | 4        | ▲      | C++                  | 5.943%  | -0.16% |
| 4        | 8        | ▲▲     | Python               | 4.429%  | +2.14% |
| 5        | 5        |        | C#                   | 4.114%  | -0.21% |
| 6        | 6        |        | PHP                  | 2.792%  | +0.05% |
| 7        | 9        | ▲      | Visual Basic .NET    | 2.390%  | +0.16% |
| 8        | 7        | ▼      | JavaScript           | 2.363%  | -0.07% |
| 9        | 10       | ▲      | Perl                 | 2.209%  | +0.38% |

Source: <http://www.tiobe.com/index.php/content/paperinfo/tpci/index.html>

# Why **Java** certification?

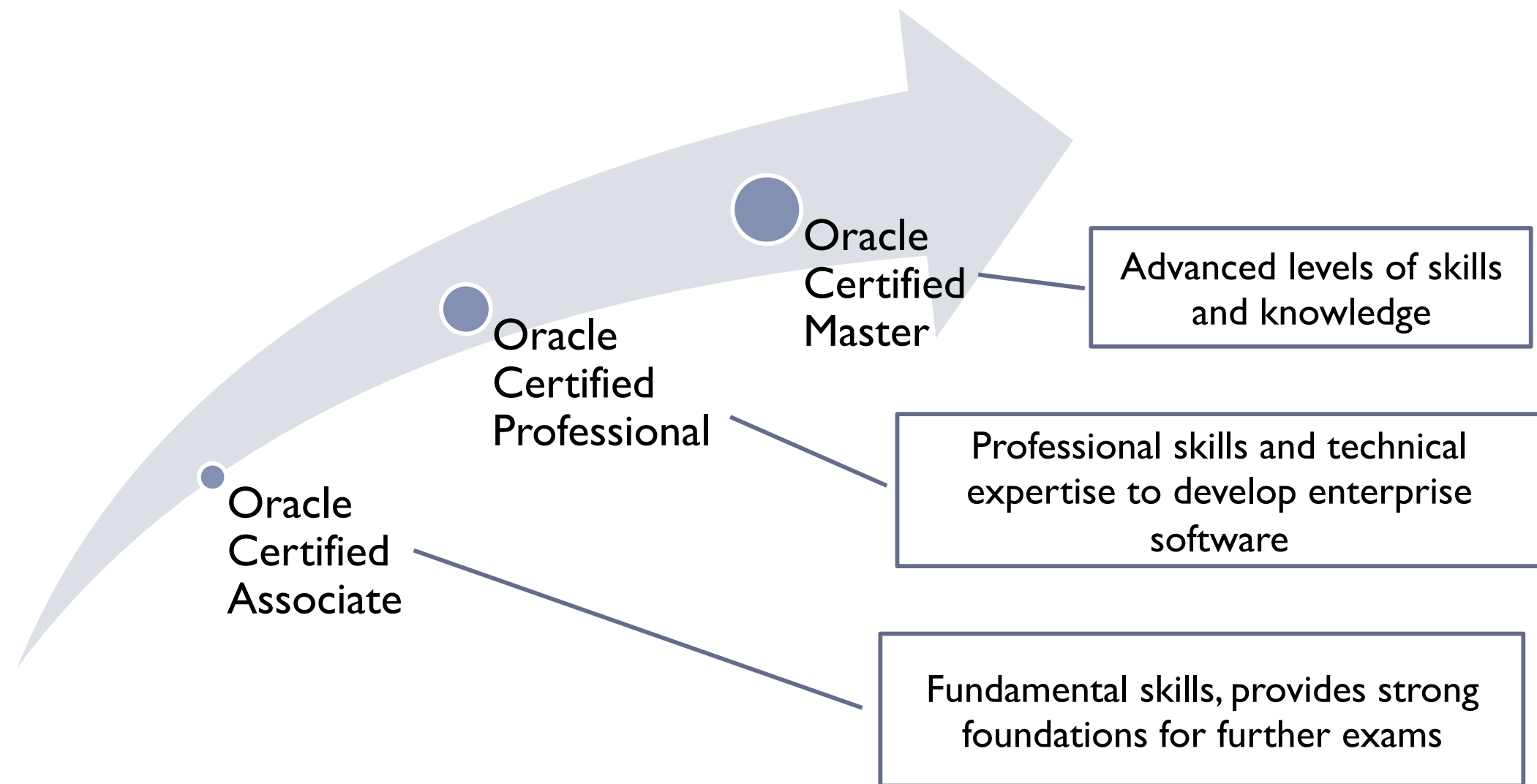
## **3 Billion Devices Run Java**

Computers, Printers, Routers, Cell Phones, BlackBerry, Kindle, Parking Meters, Public Transportation Passes, ATMs, Credit Cards, Home Security Systems, Cable Boxes, TVs...

**ORACLE®**



# Oracle's certification path



# How to register?

- You can register and pay at the Pearson VUE website
  - This is our recommended option
- You can buy exam voucher from Oracle and then register yourself in Pearson VUE website
- You can register and pay in the Oracle Testing Center (OTC)

# OCAJP 8 certification



## Java SE 8 Programmer I



New & Upcoming Releases



Print this Exam

**Exam Number:** 1Z0-808

**Associated Certifications:** Oracle Certified Associate, Java SE 8 Programmer , Oracle Certified Java Programmer, Silver SE 8 - Available only in Japan (Oracle Certified Associate, Java SE 8 Programmer)

**Exam Product Version:** Java SE

**Exam Price:** Rs 9604 [More on exam pricing](#)

**Duration:** 150

**Number of Questions:** 77

**Passing Score:** 65% [View passing score policy](#)

**Validated Against:** This exam has been written for the Java SE 8 release.

**format:** Multiple Choice

# OCAJP 8 - Exam topics

Java Basics

Working With Java Data Types

Using Operators and Decision Constructs

Creating and Using Arrays

Using Loop Constructs

Working with Methods and Encapsulation

Working with Inheritance

Handling Exceptions

Working with Selected classes from the Java API

This table shows only top-level topics – for detailed sub-topics, see Oracle website



# OCPJP 8 certification



## Java SE 8 Programmer II



New & Upcoming Releases



Print this Exam

**Exam Number:** 1Z0-809

**Associated Certifications:** Oracle Certified Professional, Java SE 8 Programmer , Oracle Certified Java Programmer, Gold SE 8 - Available only in Japan (Oracle Certified Professional, Java SE 8 Programmer)

**Exam Product Version:** Java SE

**Exam Price:** Rs 9604 [More on exam pricing](#)

**Duration:** 150 minutes

**Number of Questions:** 85

**Passing Score:** 65% [View passing score policy](#)

**Validated Against:** This exam is validated against Java SE 8.

**format:** Multiple Choice

# OCPJP 8 - Exam topics

Java Class Design

Advanced Java Class Design

Generics and Collections

Lambda Built-in Functional Interfaces

Java Stream API

Exceptions and Assertions

Use Java SE 8 Date/Time API

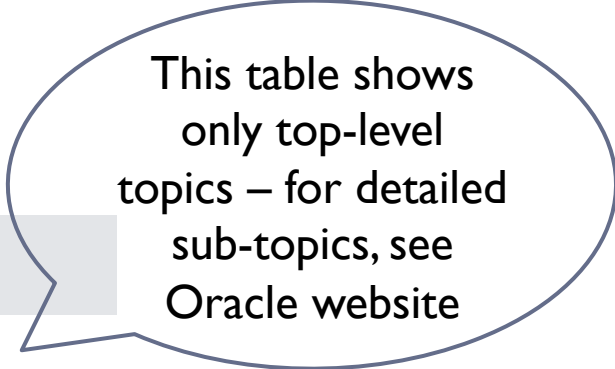
Java I/O Fundamentals

Java File I/O (NIO.2)

Java Concurrency

Building Database Applications with JDBC

Localization



This table shows  
only top-level  
topics – for detailed  
sub-topics, see  
Oracle website

# Exam questions - Format

- It's a multiple-choice questions exam
  - The number of options would be based on the questions
  - Can be from 4 to 7 options (typically four options)
- Many questions will have more than one answer to be selected!
- The question will clearly tell you how many options you need to select

# What do the questions test?

- Questions intend to test your ability to solve real-world problems
  - Most questions would be programming questions
  - Given a program or code segment, predict the behavior
- Also few conceptual questions; These questions will test your knowledge and will not have any programs in it. Examples:
  - What are different kinds of drivers in JDBC
  - What are different kinds of liveness problems with threads

# What do the questions test?

- Questions will test your knowledge of language features and their usage
  - Will test if you understand language features and can apply them in practical situations
- Most questions will be on nitty-gritty details or corner cases, or unusual aspects of the language
  - You don't just need to understand the generics feature in Java but also need to understand problems due to type-erasure, mixing legacy containers with generic containers, etc.

# What do the questions test?

- Questions will test your knowledge of library features and their usage
  - Will test if your familiarity with Java APIs and know how to use them in practical situations
- Most questions will be on nitty-gritty details or corner cases, or unusual aspects of the library; examples:
  - What does the `remove()` method of `Deque` do? (Answer: It removes the first element from the underlying deque instance).
  - What will happen if `sleep()` method is interrupted? (Answer: You'll get an `InterruptedException`)

# Sample question

```
class EHBehavior {  
    public static void main(String []args) {  
        try {  
            int i = 10/0; // LINE A  
            System.out.print("after throw -> ");  
        } catch(ArithmeticException ae) {  
            System.out.print("in catch -> ");  
            return;  
        } finally {  
            System.out.print("in finally -> ");  
        }  
        System.out.print("after everything");  
    }  
}
```

# Sample question

**Which one of the following options best describes the behavior of this program?**

- a) The program prints: in catch -> in finally -> after everything
- b) The program prints: after throw -> in catch -> in finally -> after everything
- c) The program prints: in catch -> in finally -> after everything
- d) The program prints: in catch -> after everything
- e) The program prints: in catch -> in finally ->
- f) When compiled, the program results in a compiler error in line marked with comment in LINE A for divide-by-zero



# Sample question: Answer

- ▶ e) The program prints: in catch -> in finally ->
  - ▶ The statement `println("after throw -> ");` will never be executed since the line marked with comment `LINE A` throws an exception.
  - ▶ The catch handles `ArithmeticException`, so `println("in catch -> ");` will be executed.
  - ▶ Following that there is a return statement, so the function returns.
  - ▶ But before the function returns, the finally statement should be called, and hence the statement `println("in finally -> ");` will get executed.
  - ▶ So, the statement `println("after everything");` will never get executed.

# Sample question

**Which one of the following relationship describes the OO design concept of "composition"?**

- a) is-a
- b) is-a-kind-of
- c) has-a
- d) is-implemented-in-terms-of
- e) composed-as

**Answer:** c) has-a

Composition is a design concept that refers to has-a relationship.

# Sample question

```
import java.util.Arrays;

public class DefaultSorter {
    public static void main(String[] args) {
        String[] brics = {"Brazil", "Russia", "India", "China"};
        Arrays.sort(brics, null);    // LINE A
        for(String country : brics) {
            System.out.print(country + " ");
        }
    }
}
```

# Sample question

**Which one of the following options correctly describes the behavior of this program?**

- a) This program will result in a compiler error in line marked with comment LINE A
- b) When executed, the program prints: Brazil Russia India China
- c) When executed, the program prints: Brazil China India Russia
- d) When executed, the program prints: Russia India China Brazil
- e) When executed, the program throws a runtime exception `NullPointerException` when executing the line marked with comment LINE A
- f) When executed, the program throws a runtime exception `InvalidComparatorException` when executing the line marked with comment LINE A

# Sample question: Answer

**Answer:** c) When executed, the program prints: Brazil  
China India Russia

- ▶ When null is passed as second argument to `Arrays.sort()` method, it means that the default Comparable (i.e., natural ordering for the elements) should be used.
- ▶ The default Comparator results in sorting the elements in ascending order.
- ▶ The program does not result in a `NullPointerException` or any other exceptions or a compiler error.

# How to prepare?

- **Code, code, code!**
- The best way to prepare for the exam is to write lots and lots of small programs and learn from your mistakes!
- If possible, do some small toy projects in the topics you're new or not familiar with.

# How to prepare?

- **Read, read, read!**
- By reading more, you'll learn more about the language features and the library. Lots of resources in the internet.

THE EXPERT'S VOICE® IN JAVA

# Oracle Certified Professional Java SE 8 Programmer Exam 1Z0-809

A Comprehensive OCPJP 8  
Certification Guide

—  
S G Ganesh  
Hari Kiran  
Tushar Sharma

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- <https://ocpjava.wordpress.com/> (more ocpjp 8 resources here)