



DevelopIntelligence
Developing Developers

Sun Microsystems Java Certification Program Briefing

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Overview

Sun Microsystems Java Certification Program Briefing grew out of a market research and certification examination review performed for some of our clients over the past few years. This content was based on our research and experience and may not reflect the specific details or perspectives of Sun Microsystems.

The content in this publication was created with the sole intent of providing individuals and managers with a quick overview of the Sun Java Certification Program.

As with all of our publications, our goal is to equip you with the knowledge and understanding you need to successfully do your job. If after reading this publication, you feel there are topics or content that could be added or changed, please let us know by sending us an email to pub-suggestions@DevelopIntelligence.com.

About the Author

Kelby Zorgdrager is the President and Founder of DevelopIntelligence. Kelby has spent nearly 15 years in the software development industry holding roles from software engineer to Chief Technology Officer. During the dot-com years, Kelby spent time at Sun Microsystems initially as a Java Instructor and Evangelist eventually transitioning to a software engineer working on a Jini-based infrastructure product. Over the past four years, Kelby has been focusing on creating productivity within software development organizations through the delivery of training and consulting services. Kelby has been a guest speaker at software development conferences like Colorado Software Summit, Java One, Java University, and COMDEX.

Sun Microsystems Java Certification Program

Certification and Productivity

Even though the Sun Java certification program is a multi-level, multi-competency program, it does not easily translate into a measure of productivity.

Like most certification programs, Sun's program equates knowledge with productivity. The program is structured around the philosophy that more knowledge yields a more productive worker.

Measuring Knowledge

Because there is no industry standard to measure the productivity of a software developer, most companies turn to certification programs as that measure.

However, our experience tells us that using a certification program as a measure of productivity, is like comparing apples to oranges.

Certification programs only measure someone's knowledge. They do not measure someone's ability to effectively and productively apply that knowledge.

Overview

Sun Microsystems offers the de facto standard for Java Certification. However, other organizations, such as Oracle and IBM, offer complementary programs. From an industry standard, most Java developers gravitate towards Sun's program than the others.

The landscape of Sun's Java Certification Program has changed overtime in much the same way as Microsoft's has changed. Initially, Sun offered only three Java certifications the Sun Certified Java Programmer, the Sun Certified Java Developer, and the Sun Certified Java Architect. As the language and platform grew, Sun revised the program into a multi-level, multi-certification program.

Four Levels Of Certification

Sun offers four levels of Java Certifications, from a base entry level to an advanced architect level. Like most certification programs, moving up the certification path requires the previous level's certification.

According to Sun's marketing, the current certification focuses on the skills required for specific job roles, such as programmer or developer. In this vein, it would seem similar to the .NET certification programs. In reality, however, Sun's certification program focuses primarily on the type of artifact an individual will be creating (a component or application).

The four levels of certification are:

- Entry Level
- Foundational Level
- Speciality Level
- Enterprise Level

Entry Level Certification

The entry level certification is represented by the Sun Certified Java Associate (SCJA) certification. It is targeted at entry-level developers, project managers, and managers and validates an individuals basic knowledge of object oriented concepts, the Java programming language and general knowledge of Java platforms and technologies. At one point in time SJCA was used to describe the Sun Certified Java Architect program. This is no longer the case.

Measuring Productivity

The growth of new technologies combined with the lack of an industry measure for productivity, makes it hard for an organization to determine if one developer is more effective or productive than another.

Over time, the software development industry has attempted to measure productivity and effectiveness by tracking things like lines of code generated, defects per lines of code, defects per release, project delays, etc. In many cases, these are leveraged to determine the productivity of an organization, instead of an individual.

Productivity Levels

While all of these strategies have varying levels of validity, without process consistency or key performance indicators in place, they don't provide the insight required to determine productivity.

After interacting with nearly 40,000 developers worldwide, we prefer to measure productivity at the individual level. Once the productivity of an individual is established, you can begin to determine the productivity of a software team.

We measure individual productivity with four levels:

- Awareness - able to grasp concepts
- Foundational - able to independently apply concepts and with help
- Mastered - able to independently apply concepts and identify new concepts with help
- Optimized - able to independently apply and identify new concepts

Foundational Level Certification

The foundational level certification is represented by the Sun Certified Java Programmer (SCJP) certification. It is targeted at programmers who wish to demonstrate proficiency in the Java programming language.

The SCJP was the first Java Certification Program to be available on the market. At one point in time, the SCJP required an in-depth level of knowledge across the entire Java Standard Edition (Java SE) platform. However, overtime the size and expansiveness of Java SE platform made it nearly impossible for someone to obtain an in-depth level of knowledge.

Specialty Level Certification

The speciality level of certification is the most comprehensive within the entire Java Certification Program. Represented by 5 different certifications, an individual can become certified in all or just one. Within the speciality level, the different certifications focus on the type of applications the developer will build.

- **Developer** – SCJD (Sun Certified Java Developer) focuses on validating an individual's command of the Java programming language, across any type of application.
- **Web Developer** – SCWCD (Sun Certified Web Component Developer) focuses on validating an individual's command of the Java language in relation to creating Web applications
- **Business Component Developer** – SCBCD (Sun Certified Business Component Developer) focuses on validating an individual's command of the Java language relating to creating reusable enterprise components.
- **Mobile Application Developer** – SCMD (Sun Certified Mobile Application Developer) focuses on validating an individual's command of the Java language relating to creating mobile applications.

Enterprise Level

The enterprise level certification is the most difficult to achieve. The SCEA (Sun Certified Enterprise Architect) focuses on validating an individual's ability for architecting and designing Java Enterprise Edition compliant solutions. The SCEA replaces the former Sun Certified Java Architect (SCJA).

Certification and Job Title

In many cases, companies use certification as a bar or an achievement required to obtain a Job Title.

Though certification provides an indication of the level of knowledge, it does not provide any insight into the ability and capacity of an individual to function in a specific role.

Instead of mandating a certification as the mark of achievement, consider using certification as one of the elements required to obtain a job title.

Other things that should be considered are:

- Ability to lead team(s)
- Ability to interact with business units and peers
- Ability to navigate and manage change
- Command of technologies, development process, and tools
- Dependability and integrity
- Ability to mentor and grow more junior staff
- Ability to understand big picture and translate it into tangible set of actions

Certification Preparation

Sun does not offer any pre-assessments prior to embarking on a certification journey like Microsoft does. Without a pre-assessment mechanism in place it is hard to determine whether or not someone is prepared to take a certification exam.

The last thing you want to happen is to have a developer spend time preparing for an exam, only to take it and fail. Passing all but the SJCA exam, requires dedication, persistence, and a lot of preparation.

Many companies promote certification prep courses. However, taking the exam following a preparation course will not guarantee success.

Like most things, the best way to truly learn something is through application. Without application the knowledge is top-of-mind knowledge. When its not applied or referenced, its forgotten.

After participating in the creation and administration of the Sun Java Certification program, we recommend the following exam preparation strategy:

- Identify the exam(s) you want to pass
- Determine the skills and competencies required to pass the certification
- Define an certification roadmap for yourself; give yourself 3 - 6 months of prep for each exam
- Take a course or read a book that supports the certification
- Take a practice exam and analyze your results
- Study the areas where you scored low; consider joining a study group or getting a coach
- Work on a project relating to the certification concepts, specifically in the areas where you scored low
- Keep taking practice exams; studying and applying until you can consistently score 90% or better
- Take the exam

Sun currently offers a free re-take if you fail the exam. However, most people get discouraged if they fail the first exam, and don't follow through with the studying or discipline required to pass the retake. This is why we believe it is important to spend dedicated time and effort upfront to ensure a successful exam attempt.

DevelopIntelligence

About DevelopIntelligence

DevelopIntelligence is a software development productivity company. We have helped over 400 software development teams increase their productivity through the delivery of training, employee development programs, and educational consulting.



Our Services

Training

- 🕒 Seminars and Workshops
- 🕒 Hands-on and eLearning
- 🕒 Workshops and Boot camps

Employee Development

- 🕒 Coaching and Mentoring
- 🕒 New Hire Development
- 🕒 Team Migration planning

Educational Consulting

- 🕒 Curriculum design
- 🕒 Content creation
- 🕒 Program development

Our Methodology

Our proven **evaluate.architect.construct.** methodology examines the business drivers, the skill gaps, technology roadmap, and productivity objectives to create a client-focused, project-centric, customized productivity program. This program maps out the best continuous learning approach, processes, job aides, and team structuring required to achieve all of your goals.

Our Expertise

- 🕒 40,000+ Developers Trained
- 🕒 40+ Years of Software Development
- 🕒 35+ Years of Technical Training
- 🕒 12 Java certifications
- 🕒 4 Best-selling Java Books

Our History

Founded in 2003 with a single vision:

"help software teams develop better software"

DevelopIntelligence's team represents more than 40 years of software development experience coupled with over 35 years of technical training. Over the years, we have leveraged our experiences in business, training and software development to help clients of all sizes create productivity within their software development teams.