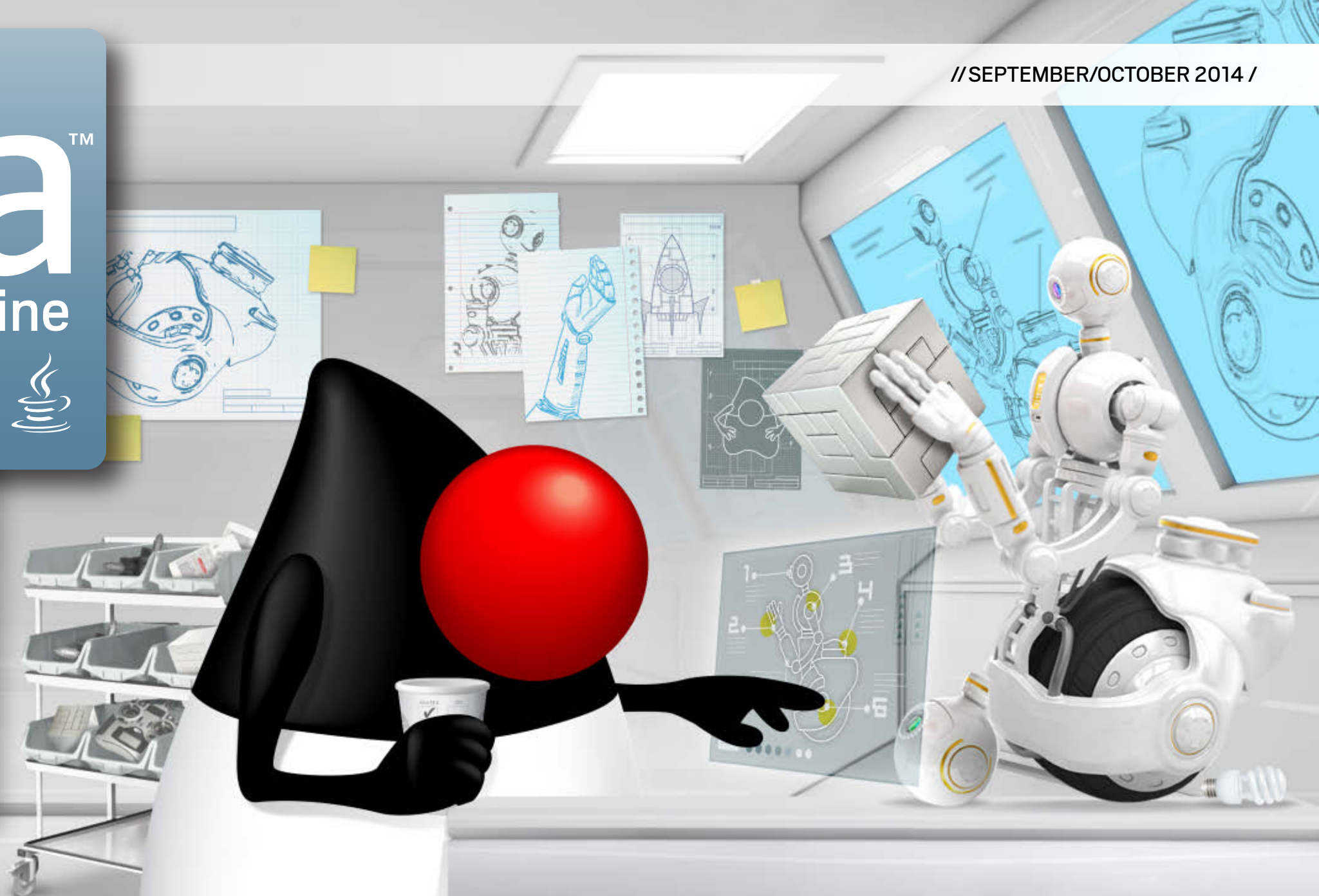


# Java™ magazine

By and for the Java community 



## WHAT WILL YOU BUILD TODAY?

**05**  
2014 DUKE'S  
CHOICE  
AWARDS

**11**  
THE MAKER  
MOVEMENT  
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**16**  
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WINNERS



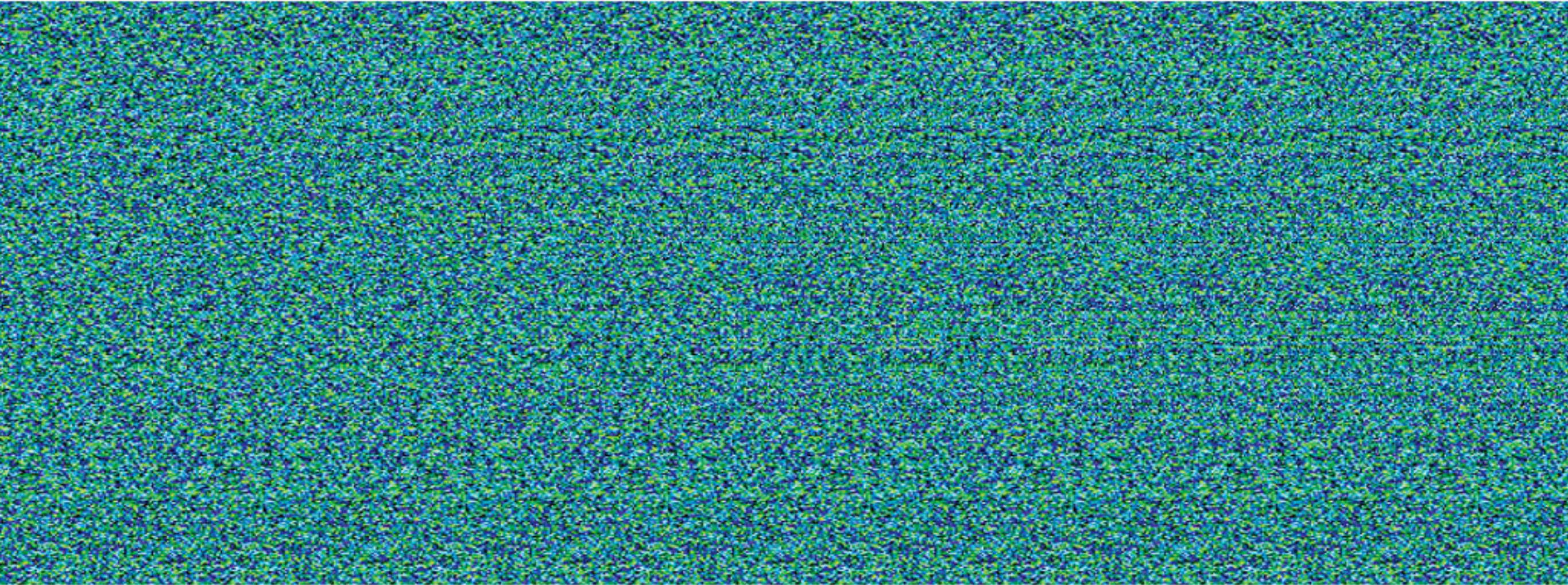








# The answer is right in front of you



## Java Image Enabling SDKs that Help You See the Big Picture

At first glance it may seem difficult, but it's really quite simple. Atalasoftware's JoltImage product is a proven SDK for image enabling your Java-based web applications, easily. Image enabling helps to add dimension to your data, so you can uncover insights such as correlations and causations hidden inside your 2-dimensional documents. Our SDK does the heavy lifting for you, saving time, money, and the headaches of figuring it out yourself. Backed by our highly knowledgeable & caffeinated support engineers, JoltImage will enable your success and make the big picture so much easier to see.



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### A Maker Faire Kansas City maker shares her story with Dougherty.

A friend of mine told me about a “cat detector” that he built. He and his family had adopted a stray cat that had a lot of scratches and wasn’t doing so well, so they started putting out food for it. They rarely saw the cat, but they saw the empty food bowl and wondered who was eating the food. So he took a little camera and connected it to a motion sensor, along with a trigger light set up by the cat food, so that when something approached the bowl, it took a picture and sent it to his cell phone. They discovered that both the cat and a raccoon were eating the food. It’s a very practical example of solving a specific problem, such as the one for the man in the wheelchair. People now can see

a problem and whip something together off the shelf and solve it. I don’t know if there’s a big market for a “cat detector,” but you would be surprised at the number of similar stories from people who want to know what’s happening in their yard or their chicken coop at night.

Java developers, once they get acquainted with electronics, are in a position to do things on a much grander scale. There’s something a bit disorienting about the Maker Movement, but it’s a kind of creative disorientation because you become aware of so many possibilities. You go to a Maker Faire and see 10 things in a row that are extremely different from each

other, each of which leads you to think of new options. You see someone doing some new kind of crochet and someone else with a robot, and soon you start seeing robots doing crochet. And if you are good at coding, you have a great advantage with things such as the Arduino platform, BeagleBone, the Raspberry Pi, and new areas such as the Spark Core board.

We published a really great book called *Make: Electronics* that can help developers make the journey into electronics. One interesting direction is JSON [JavaScript Object Notation] interfaces, which should enable web developers to talk to sensors in a language they are familiar with.

**Java Magazine:** Any final remarks?  
**Dougherty:** We hear a lot about the IoT. It’s important to keep in mind the new social and human space that gets created when there is a lot of data being passed between devices. We are talking about new kinds of human experiences and behaviors for everyone. The Maker Movement is raising a flag and saying that everyone has something to contribute in creating a new-and-improved world.

What I’m most thrilled about is the number of kids showing up in the Maker Movement. They are so excited and engaged. I really want to help create a world where kids can find places in their community where they learn to make things and become makers themselves. The key to this is the creation of maker spaces in schools and libraries, museums and community centers, formal and informal settings, so that kids can have access to tools and materials and find mentors. This will not only create new innovators but it will help people gain better control of their lives. **</article>**

**Timothy Beneke** is a freelance writer and editor who has written for *Mother Jones*, the *East Bay Express*, and the *Chicago Reader*.

### LEARN MORE

- [MAKE: magazine](#)
- [White House Maker Faire](#)
- [“A Perfect Match: Java and the Internet of Things”](#)















# INTRODUCING ROBOBURGH



C.H.I.M.P., the CMU Highly Intelligent Mobile Platform, was showcased at the Launch CMU event at Oracle headquarters.

**Technology is changing Pittsburgh's image from the steel city of the 1970s to a twenty-first-century hub for innovation.** And much of that is due to the efforts of the Center for Innovation and Entrepreneurship at Carnegie Mellon University (CMU). One area that is thriving is robotics—so much so that Pittsburgh may have to change its name to “Roboburgh.”

A select group of Roboburgh residents made the trip to another famous hub of innovation, Silicon Valley, to attend the Launch CMU event at Oracle headquarters in Redwood Shores, California, earlier this summer.

As CMU faculty and alumni began to showcase their inventions to possible investors, it quickly became clear that robots are much more than just a box-of-bolts android that can go out to the front lawn and pick up a newspaper. As **Rob Daley**, CEO and cofounder of CMU-incubated startup 4moms, put it, “There is a whole lot of very core fundamental technology that’s related to robotics that’s really powerful and really important if you divorce yourself from the media

concept of humanoid robotics.”

Daley’s company was just one of the many organizations that showed up to explain how they use robotics technology in their products. Representatives from 27 startup companies in industries ranging from healthcare to music were represented at the two demo and poster sessions, which bookended the showcase talks.

**Manuela Veloso**, a professor of computer science at CMU, said the most-powerful robots are the ones that can ask for help. The “CoBot” robots in Veloso’s lab use Java in an Android app as a GUI to enable humans to speak with the robots, providing an interactive capability Veloso called “symbiotic autonomy.” Java also powers an app that humans can use to summon the robots. “In our work, Java is used to enable robots to interact with people through phone apps or by accessing the web, or to visualize the robots’ state,” said Veloso.

Whether these robots transform Pittsburgh into Roboburgh is yet to be seen. But one thing’s for sure: These aren’t your mother’s robots.







































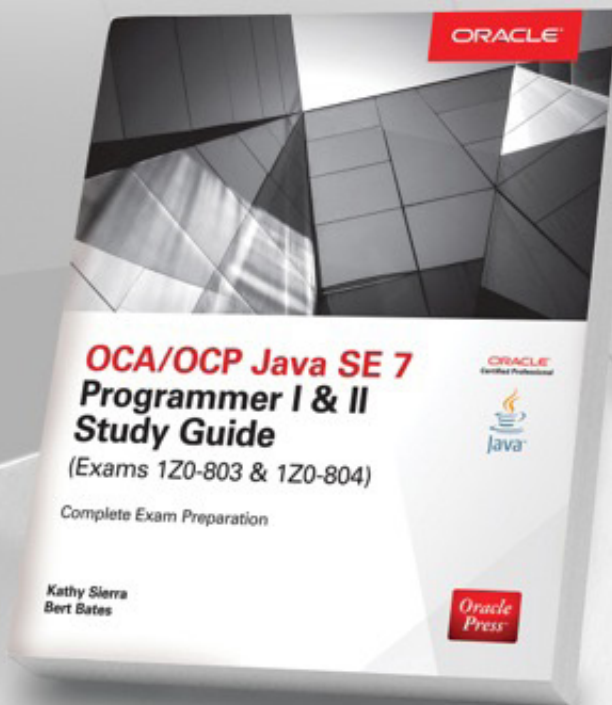






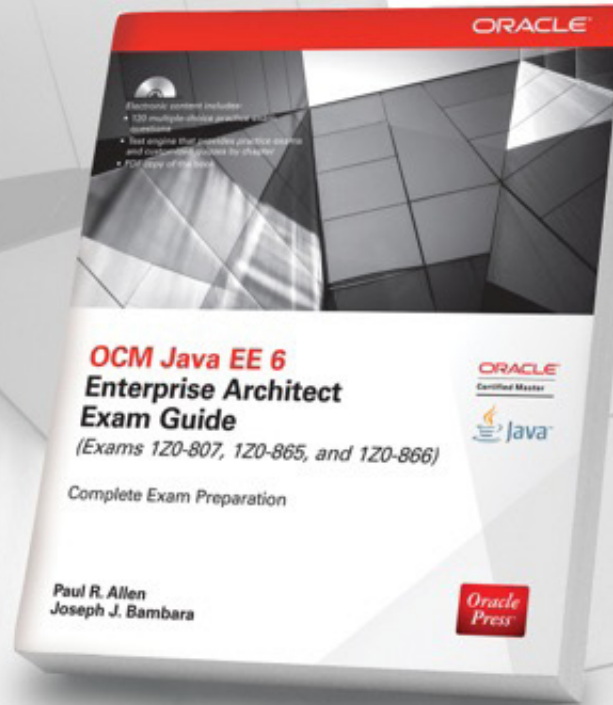


Written by leading Java experts, Oracle Press books offer the most definitive, complete, and up-to-date coverage of Java available.



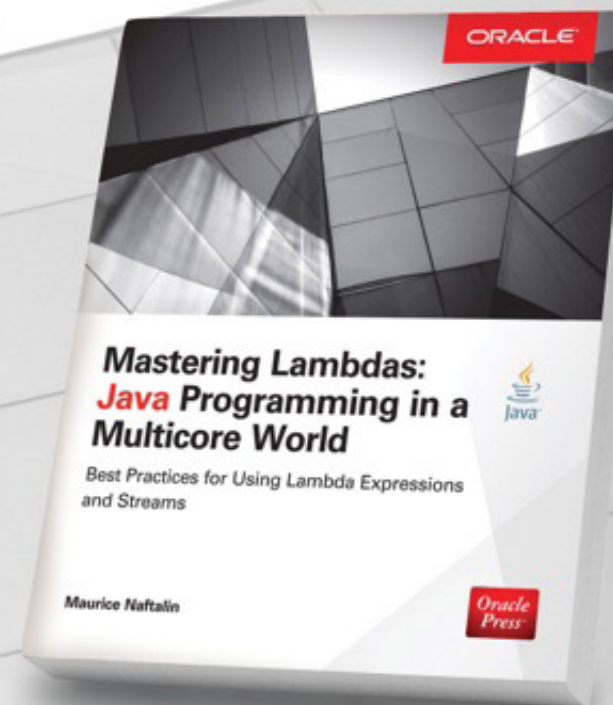
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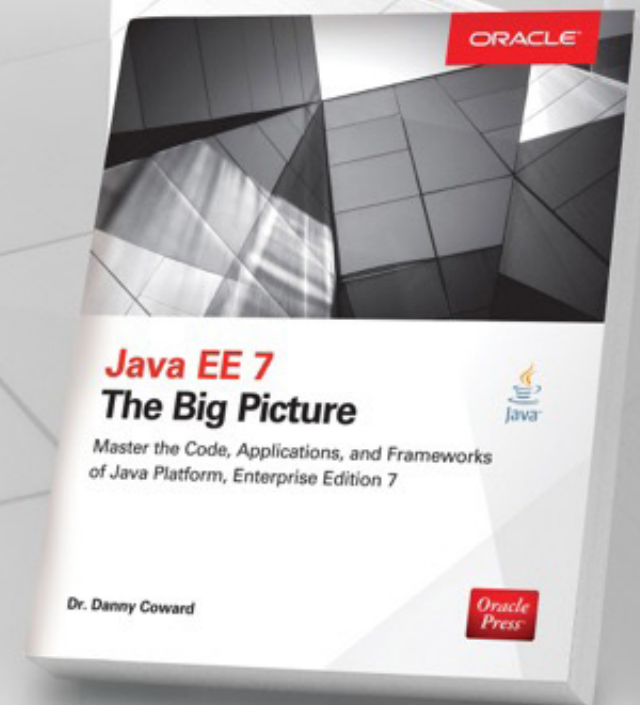
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