



Software Project Management in Practice



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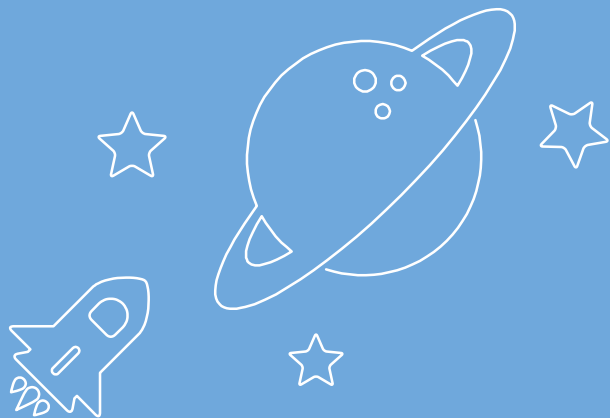
HELLO!

I am Cagdas Gerede

I am here because I love to talk about
Software.

You can find me at
cegerede@etu.edu.tr

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OpenJDK proj.

Who develops java/javac? What process do they follow?
Would you like to be a contributor?

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OpenJDK project

- ▶ Open source implementation of Java Platform
- ▶ <http://openjdk.java.net>

OpenJDK

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OpenJDK project

OpenJDK



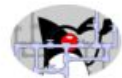
What is this? The place to collaborate on an open-source implementation of the Java Platform, Standard Edition, and related projects. ([Learn more.](#))



Download and install the open-source JDK 8 for most popular Linux distributions. If you came here looking for Oracle JDK 8 product binaries for Solaris, Linux, Mac OS X, or Windows, which are based largely on the same code, you can download them from java.oracle.com.



Learn how to use the JDK to write applications for a wide range of environments, from desktop to server.



Hack on the JDK itself, right here in the growing OpenJDK Community: Browse the code on the web, clone a Mercurial repository to make a local copy, learn how to build and hack on the code with the NetBeans IDE, and contribute a patch to fix a bug, enhance an existing component, or define a new feature.

*Screenshot taken from <http://openjdk.java.net>

(Sep 2016)

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OpenJDK project

- ▶ Oracle JDK vs. OpenJDK
 - ▶ Oracle JDK extends OpenJDK with closed-source components

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OpenJDK project

- ▶ **Who uses:**
 - ▷ Default Java Standard edition in Ubuntu, Fedora, Red Hat Ent.
 - ▷ 21% of developers
- ▶ **Who develops:**
 - ▷ Oracle and IBM employees
 - ▷ Volunteers
- ▶ **Open to new contributors:**
 - ▷ Yes

[From <http://openjdk.java.net/faq/>]

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Java Virtual Machines

V·T·E	Java virtual machines (comparison) [hide]
Sun/Oracle	HotSpot · KVM · OpenJDK · Maxine VM
Major implementations	Apache Harmony · Excelsior JET · GCJ · JamVMxccx · Jikes RVM · Kaffe · IKVM.NET · IBM J9 · JRockit
Embedded	Excelsior JET Embedded · JamaicaVM · Mika VM · Mysaifu · Squawk (Sun)
Others	CACAO · Dalvik · JX · <i>more...</i>
Discontinued	Microsoft JVM · SableVM · Jupiter · <i>more...</i>

*Screenshot taken from
<https://en.wikipedia.org/wiki/HotSpot>
(Sep 2016)

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OpenJDK project

- ▶ **Process**
 - ▷ Scrum or Kanban
- ▶ **Proposals and evaluations**
 - ▷ JSR and JCP
- ▶ **Issue Tracking**
 - ▷ JIRA based Bug System (JBS)

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OpenJDK
project

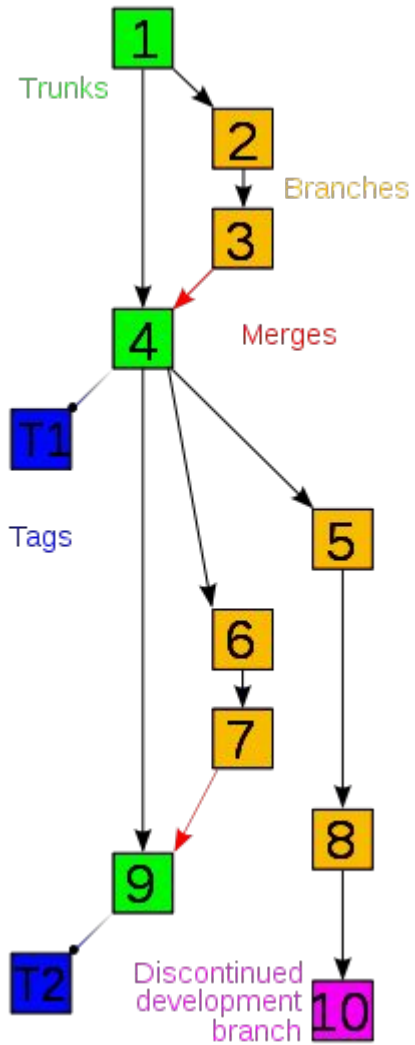
- ▶ Code Repository
 - ▷ Mercurial repositories
 - ▷ <http://hg.openjdk.java.net>
 - ▷ Instructions:
<http://openjdk.java.net/guide/repositories.html>

Years, where available, indicate the date of first stable release. Systems with names *in italics* are no longer maintained or have planned end-of-life dates.

Local only	Free/open-source	RCS (1982) · SCCS (1972)	*From Wikipedia (09/2016)
	Proprietary	PVCS (1985) · QVCS (1991)	
Client–server	Free/open-source	CVS (1986, 1990 in C) · CVSNT (1998) · QVCS Enterprise (1998) · Subversion (2000)	
	Proprietary	AccuRev SCM (2002) · ClearCase (1992) · CMVC (1994) · Dimensions CM (1980s) · DSEE (1984) · Endeavor (1980s) · Integrity (2001) · Panvalet (1970s) · Perforce (1995) · Software Change Manager (1970s) · StarTeam (1995) · Surround SCM (2002) · Synergy (1990) · Team Concert (2008) · Team Foundation Server (2005) · Visual Studio Team Services (2014) · Vault (2003) · Visual SourceSafe (1994)	
Distributed	Free/open-source	ArX (2003) · BitKeeper (1998) · Codeville (2005) · Darcs (2002) · DCVS (2002) · Fossil (2007) · Git (2005) · GNU arch (2001) · GNU Bazaar (2005) · Mercurial (2005) · Monotone (2003) · SVK (2003) · Veracity (2010)	
		TeamWare (1990s?) · Code Co-op (1997) · Plastic SCM (2006) ·	

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Version Control Concepts



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Version Control Concepts

- ▶ Branch
- ▶ Fork
- ▶ Changeset
- ▶ Commit
- ▶ Merge
 - ▷ File locking vs. merge-based
- ▶ Data comparison
- ▶ Trunk

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OpenJDK
project

- ▶ Issue Tracking
 - ▷ JIRA based
 - ▷ JDK Bug System (JBS)
 - ▷ <https://bugs.openjdk.java.net>
- ▶ Example:
 - ▷ <https://bugs.openjdk.java.net/browse/JDK-8017120>

[JDK](#) / [JDK-8017120](#)

Month name in pt_BR should not be capitalized

[Agile Board](#)

Details

Type:	Bug	Status:	IN PROGRESS
Priority:	P4	Resolution:	Unresolved
Affects Version/s:	7, 8	Fix Version/s:	9
Component/s:	globalization		
Labels:	webbug		
Subcomponent:	locale-data		
Understanding:	Fix Understood		
CPU:	x86		
OS:	os_x		

Description

FULL PRODUCT VERSION :

A DESCRIPTION OF THE PROBLEM :

Month names as formatted by SimpleDateFormat for the pt_BR are capitalized. Month names in Brazil are not capitalized. (They are in Portugal, but not Brazil)

STEPS TO FOLLOW TO REPRODUCE THE PROBLEM :

Run the following code:

```
Locale brazil = new Locale("pt", "BR");
SimpleDateFormat format = new SimpleDateFormat("d 'de' MMMM", brazil);
Date date = new Date(2012, 5, 28);
String result = format.format(date);
```

People

Assignee:	Leo Jiang
Reporter:	Yuka Kamiya
Votes:	Vote for this issue
Watchers:	Start watching this issue

Dates

Created:	2012-06-28 16:09
Updated:	2016-09-09 11:50
Imported:	2013-06-19 16:45

Agile

[View on Board](#)

* <https://bugs.openjdk.java.net/browse/JDK-8017120>

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OpenJDK
project

- ▶ Email lists
 - ▷ <http://mail.openjdk.java.net/mailman/listinfo>
- ▶ Specific component:
 - ▷ `compiler-dev@openjdk.java.net`
 - ▷ <http://mail.openjdk.java.net/pipermail/compiler-dev/>

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OpenJDK
project

- ▶ Example Dev Thread:
 - ▷ <http://mail.openjdk.java.net/pipermail/compiler-dev/2016-August/thread.html>
- ▶ Question:
 - ▷ <http://mail.openjdk.java.net/pipermail/compiler-dev/2016-August/010298.html>

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OpenJDK
project

- ▶ Code Review
 - ▶ <http://openjdk.java.net/guide/codeReview.html>

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OpenJDK project

- ▶ How to contribute
 - ▶ <http://openjdk.java.net/contribute/>

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OpenJDK
project

- ▶ Kanban Board
 - ▷ <https://bugs.openjdk.java.net/secure/RapidBoard.jspa?rapidView=542&selectedIssue=JDK-8159713>
- ▶ Agile, Scrum, Kanban, Waterfall:
 - ▷ <http://goo.gl/B2pYgj>

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Open Source Software

- ▶ Other open source projects
 - ▷ Eclipse
 - ▷ Hadoop
 - ▷ Notepad++
 - ▷ Android
 - ▷ and many more...
- ▶ Popular project hosting sites
 - ▷ Github
 - ▷ Bitbucket
 - ▷ SourceForge

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JCP: Java community process:

<https://jcp.org/en/home/index>

JSR: Java specification request

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OpenJDK
project

- ▶ Typical
 - ▷ Documentation is wrong or incomplete
 - ▷ Hard to set up environment and get going

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- ▶ Change Planning
 - ▷ <http://openjdk.java.net/guide/changePlanning.html>
- ▶ Identify a bug/Enhancement/feature request (FR, RFE)
- ▶ Changeset, change list (CS, CL), Change request (CR, SCR)
- ▶ Change review

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Steps for fixing a bug

- ▶ Discuss the intended change
- ▶ Create a bug if not exist
 - ▷ Set status to “open”
- ▶ Fix the bug locally
- ▶ Write a test
- ▶ Request a review
- ▶ Create a changeset
- ▶ Push the changeset

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By-laws

<http://openjdk.java.net/bylaws>

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Dev Schedule Milestones

<http://openjdk.java.net/projects/jdk8/milestones>

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Project roles

Author

Contributor (can create CS but cannot push to repo)

Readability reviewer

Knowledgeable in coding guidelines and use of language (readability approval)

Committer

can push CS to repo

Approval can be finer granular (owners per folder)

One CS may require multiple reviewers (editing files in multiple

Reviewer

Experienced committer

Can approve CS destined for repo (owner approval)

Lead

Committer that coordinates project activities

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Instructions on becoming an author

<http://openjdk.java.net/projects/index.html>

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Now you have the basic terminology to explore an open source project.

END