JBOSS CERTIFIED APPLICATION ADMINISTRATOR™
EXAM STUDY GUIDE

Exam Overview

The JBoss Certified Application Administrator (JBCAA™) exam tests whether exam candidates are ready for the real-world responsibilities of administering JBoss Enterprise Application Platform based applications and systems for production purposes. Those who pass the exam earn the JBoss Certified Application Administrator credential. This document provides guidance on the exam format and objectives.

The JBCAA exam is 100 percent performance-based – candidates demonstrate their knowledge and skills by doing tasks rather than regurgitating facts. Most IT certification exams ask a series of questions for which you will choose A, B, C, or D -- or the ever-unpopular "Choose all that apply." You will not see questions like that on the JBCAA exam. In fact, you will not see any questions at all. Instead, you will be provided with a real environment in which you will perform a list of real-world tasks. For example, we might ask you to replace Hypersonic with a production database rather than asking a series of questions about how one might do that. Consequently, candidates are advised to view any online "brain dumps" and the like with skepticism. The single best source of information about what is on this exam is this document.

The JBCAA exam is four timed hours. Some time is required in advance of the start time in order to check identification and gather information.

Exam Preparation: Documentation

Red Hat's performance-based approach to testing means that experience is the best preparation for the exam. Even experienced people sometimes have gaps in their knowledge, however. Training and self-study are effective supplements to experience. Training in particular can accelerate experience. Red Hat offers the *JB336 JBoss for Administrators* course, which covers most of what is on the exam. Coverage of earlier versions may vary.

To help you prepare, this document lists the task areas you can expect to see covered on the exam. We also include some official and unofficial sources of additional documentation on the task areas. Please be aware that we provide these as suggestions for study and as such they do not constitute an official endorsement for other purposes nor the continued accuracy and relevance of the resources over time. All candidates should review these materials, including candidates who have attended training.

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Access to documentation during the exam will be limited to the official JBoss Enterprise Application Platform documentation[1] for the version being tested plus any sample files or additional documentation included with the product. We will not strip anything out that is normally included.

Please note that you will not have access to the jboss.org wiki. While it is a useful resource and includes content we recommend for study, the wiki format makes it inappropriate for access during an exam. We want to test you, not the people reading and updating the wiki.

You will not be permitted to bring any hard copy or electronic documentation into the exam. This prohibition includes notes, books, or any other materials. Internet access will be strictly controlled. Keep these restrictions in mind as you study.

Exam Preparation: Environment

You will be working on a Red Hat Enterprise Linux 5.4 system during the exam, so prior experience using Linux or UNIX will be helpful. The purpose of this exam is not to test operating system administration skills and extensive experience is not required. You will have a full desktop environment in which to work and we will provide a list of basic commands for your reference in addition to the man pages and other documentation that come with Red Hat Enterprise Linux.

Fedora[2] provides a freely available alternative for you to practice your Linux skills. A Live CD version is available that allows you to work on Fedora without needing to install it on your computer. While it is not an exact match for the environment in Red Hat Enterprise Linux, it is definitely close enough for the level of familiarity required.

1 http://www.redhat.com/docs/en-US/JBoss_Enterprise_Application_Platform/index.html
2 http://fedoraproject.org/get-fedora

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Exam Tasks

JBCAA exam candidates should be able to perform the following tasks on JBoss Enterprise Application Platform. To aid your study, we have also included a list of additional study sources for these activities. As noted above, some of these materials will not be permitted during the exam. We advise all candidates to attend the *JB336 JBoss for Administrators* course and to study the supplemental references listed below.

Install and run a basic JBoss EAP instance

- *JB336 JBoss for Administrators* course
- JBoss EAP Installation Guide[3]
- JBoss EAP Getting Started Guide[3]
- JBoss EAP Administration and Configuration Guide[3]
- Example configurations included with JBoss EAP

Configure multiple JBoss EAP instances

- *JB336 JBoss for Administrators* course
- JBoss EAP Installation Guide[3]
- http://community.jboss.org/wiki/ConfigurePorts
- http://community.jboss.org/wiki/AS5ServiceBindingManager
- Example configurations included with JBoss EAP

Configure JBoss Web Connectors (including HTTPS)

- *JB336 JBoss for Administrators* course
- JBoss EAP Administration and Configuration Guide[3]
- JBoss Web Documentation[4]
- http://community.jboss.org/wiki/SecureTheJmxConsole
- http://community.jboss.org/wiki/SSLSetup
- Creating an SSL Keystore Using the Java Keytool[5]
- http://java.sun.com/javase/6/docs/technotes/tools/index.html#security (look for keytool)
- Example configurations included with JBoss EAP

3 http://www.redhat.com/docs/en-US/JBoss_Enterprise_Application_Platform/index.html
4 http://labs.jboss.com/file-access/default/members/jbossweb/freezone/docs/latest/index.html
5 http://www.informit.com/articles/article.aspx?p=407886

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Configure default Web properties for deployed applications

- *JB336 JBoss for Administrators* course
- JBoss EAP Administration and Configuration Guide[6]
- Seam Reference Guide[6] (see Configuring SFSB and Session Timeouts in JBoss AS)
- http://community.jboss.org/wiki/HttpSessionTimeout
- Example configurations included with JBoss EAP

Configure JBoss EAP logging

- *JB336 JBoss for Administrators* course
- JBoss EAP Administration and Configuration Guide[6]
- Apache Log4J documentation[7]
- Example configurations included with JBoss EAP

Secure access to JBoss EAP services

- *JB336 JBoss for Administrators* course
- JBoss EAP Getting Started Guide[6]
- http://community.jboss.org/wiki/SecureJBoss
- Example configurations included with JBoss EAP

Configure JBoss EAP application deployment

- *JB336 JBoss for Administrators* course
- JBoss EAP Getting Started Guide[6]
- JBoss EAP Administration and Configuration Guide[6]
- http://community.jboss.org/wiki/JBoss5WebDeployments
- http://community.jboss.org/wiki/TurnDeploymentScannerDown
- http://community.jboss.org/wiki/HowtodeploymyapplicationinanexternaldirectoryinJBoss-5
- Example configurations included with JBoss EAP

6 http://www.redhat.com/docs/en-US/JBoss_Enterprise_Application_Platform/index.html
7 http://logging.apache.org/log4j/1.2/manual.html

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Configure JBoss JVM properties

- *JB336 JBoss for Administrators* course
- JBoss EAP Administration and Configuration Guide[8]
- http://community.jboss.org/wiki/UseJDK5JConsole
- http://community.jboss.org/wiki/OutOfMemoryExceptions
- Java documentation[9]
- Example configurations included with JBoss EAP

Remove unnecessary services

- *JB336 JBoss for Administrators* course
- http://community.jboss.org/wiki/JBoss5xTuningSlimming

Configure JBoss to use a production quality non-XA DataSource

- *JB336 JBoss for Administrators* course
- JBoss EAP Getting Started Guide[8]
- JBoss EAP Administration and Configuration Guide[8]
- http://community.jboss.org/wiki/configdatasources
- http://community.jboss.org/wiki/encryptingdatasourcepasswords
- Example DataSource configurations included with JBoss EAP

Replace Hypersonic with a production database

- *JB336 JBoss for Administrators* course
- JBoss EAP Getting Started Guide[8]
- JBoss EAP Administration and Configuration Guide[8]
- JBoss Messaging User Guide[8]
- http://community.jboss.org/wiki/RemoveHSQLDB
- http://community.jboss.org/wiki/ChangeDefaultDataSource
- http://community.jboss.org/wiki/JBossESBSwitchDatabase
- Example DataSource configurations included with JBoss EAP

Configure and use a DBMS-based Security Domain

- *JB336 JBoss for Administrators* course
- JBoss EAP Getting Started Guide[8]
- Example security configurations included with JBoss EAP

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8 http://www.redhat.com/docs/en-US/JBoss_Enterprise_Application_Platform/index.html
9 http://java.sun.com/javase/6/docs/

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Deploy an application to the root context

- *JB336 JBoss for Administrators* course
- JBoss EAP Getting Started Guide[10]

Configure a JBoss EAP cluster using TCP

- *JB336 JBoss for Administrators* course
- JBoss EAP Administration and Configuration Guide[10]
- http://community.jboss.org/wiki/JGroupsTCPPING
- http://community.jboss.org/wiki/TwoClustersontheSameNetwork
- http://community.jboss.org/wiki/RunningInfinispanonAmazonWebServices

Create a clustered JMS queue using TCP

- *JB336 JBoss for Administrators* course
- JBoss EAP Administration and Configuration Guide[10]
- Example configurations

Configure JBoss EAP, Apache and `mod_jk` for automatic load balancing and fail over

- *JB336 JBoss for Administrators* course
- JBoss EAP Administration and Configuration Guide[10]
- http://community.jboss.org/wiki/UsingModjk12WithjBoss
- Example configurations

Configure an XA DataSource

- *JB336 JBoss for Administrators* course
- JBoss EAP Administration and Configuration Guide[10]
- http://community.jboss.org/wiki/configdatasources
- Example configurations

10 http://www.redhat.com/docs/en-US/JBoss_Enterprise_Application_Platform/index.html

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