

# ADS - ANÁLISE E DESENVOLVIMENTO DE SISTEMAS

## Desenvolvimento Web

Prof. Rafael Guimarães

Sakurai



# Objetivo da teleaula

- Introduzir o servidor de aplicações web;
- Apresentar os servidores de aplicações GlassFish e WildFly.

# Introdução

Servidores de aplicações web são programas para executar outras aplicações *enterprise*.

Aplicações corporativas (*enterprise*) podem ser, por exemplo:

- Aplicações Web;
- Componentes distribuídos;
- Aplicações batches;
- Sistemas de integração;
- Etc.



# Introdução

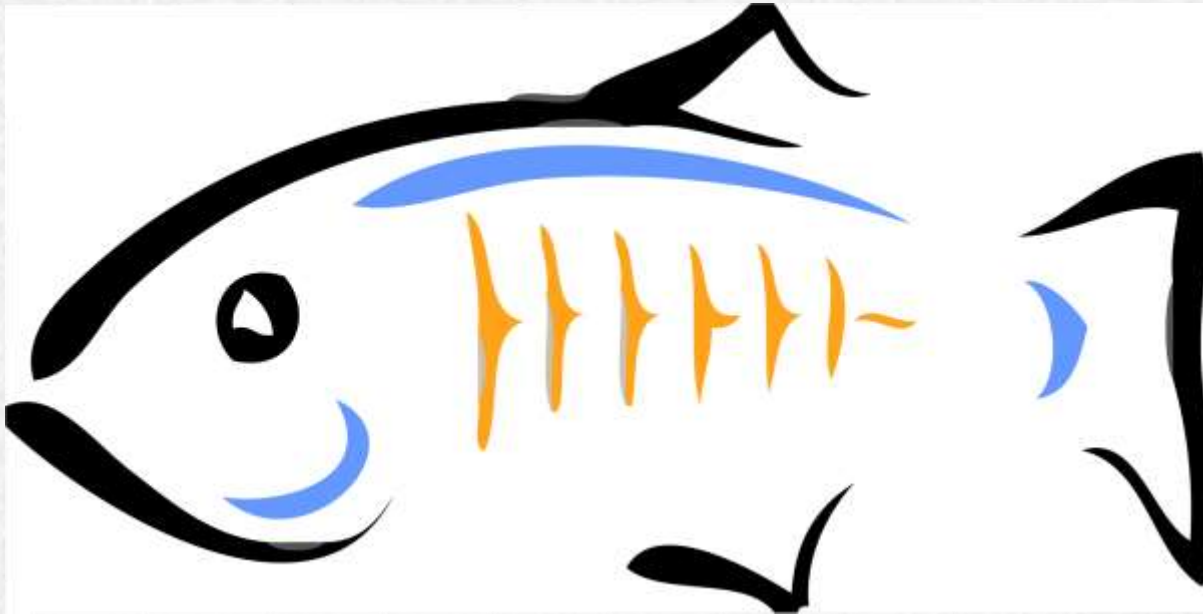
O servidor de aplicações web disponibiliza algumas funcionalidades para as aplicações:

- Gerenciamento das aplicações;
- Tratar requisições;
- Gerenciar pool de conexões com banco de dados;
- Gerenciar filas de mensageria;
- Etc.

# Servidores Web para diferentes linguagens

- Java
  - WebSphere Application Server, WebLogic Server, GlassFish, JBoss, Jetty, Apache Tomcat, Apache Geronimo
- Ruby
  - WEBrick e Mongrel
- .Net
  - Internet Information Service (IIS)
- PHP
  - Apache

# GlassFish



GlassFish é um projeto *open source* de um servidor de aplicações Java EE, disponível para download em <https://glassfish.java.net/>.

# GlassFish

O objetivo do GlassFish é fornecer um ambiente de execução para as aplicações comerciais desenvolvidas em Java:

- Servidor de implementação de referência do Java Enterprise Edition;
- Atualmente, está na versão 4.0 e pode ser baixado gratuitamente na edição **GlassFish Server Open Source Edition**.



# GlassFish

Através do GlassFish é possível:

- gerenciar aplicações;
- *pools* de conexões com banco de dados;
- filas de mensageria;
- configuração de *cluster*;
- *load balance*;
- monitoramento dos recursos;
- configuração de segurança;
- entre outras funcionalidades.



# Instalação do GlassFish

 **GlassFish** - World's first Java EE 7 Application Server About ▾

---

## GlassFish Server Open Source Edition 4.1 Download

GlassFish Open Source Edition

Nightly Builds

Java EE SDK

Maven

Oracle GlassFish Server

Earlier Releases

---

**Step 0. Prerequisite**

Java EE 7 requires JDK 7 or above, **JDK 8 u20** or above is recommended for GlassFish 4.1.

---

**Step 1. Download**

Java EE 7 Web Profile

Java EE 7 Full Platform

↳ [glassfish-4.1-web.zip](#)

↳ [glassfish-4.1.zip](#)

---

**Step 2. Install**

`unzip glassfish-4.1*.zip`

This command will extract GlassFish with a preconfigured 'Domain1' domain.

---

**Step 3. Start**

`glassfish4/bin/asadmin start-domain`

---

**Step 4. Load Console**

Go to <http://localhost:4848>

---

**Step 5. Check the documentation**

[Quick Start Guide](#)

[Installation Guide](#)

[Release Notes](#)

[All-in-one Documentation Bundle](#)

Visit the [documentation page](#) for additional guides and documentations.


---

The Aquarium









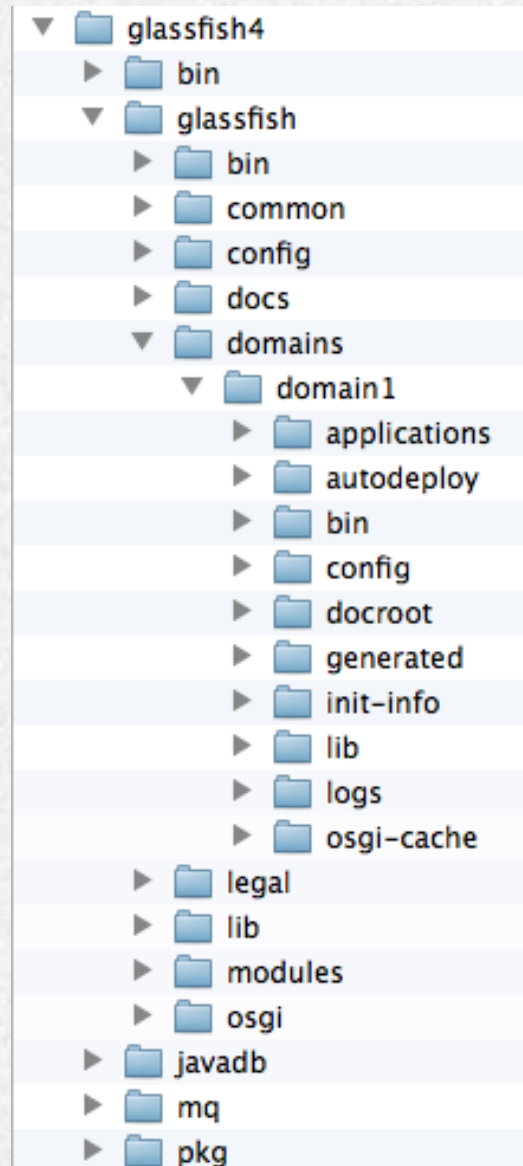


Project sponsored by **ORACLE**

Copyright © 2014 Oracle Corporation and/or its affiliates. Last updated: 9/9/14

<https://glassfish.java.net/download.html>

# Estrutura do GlassFish



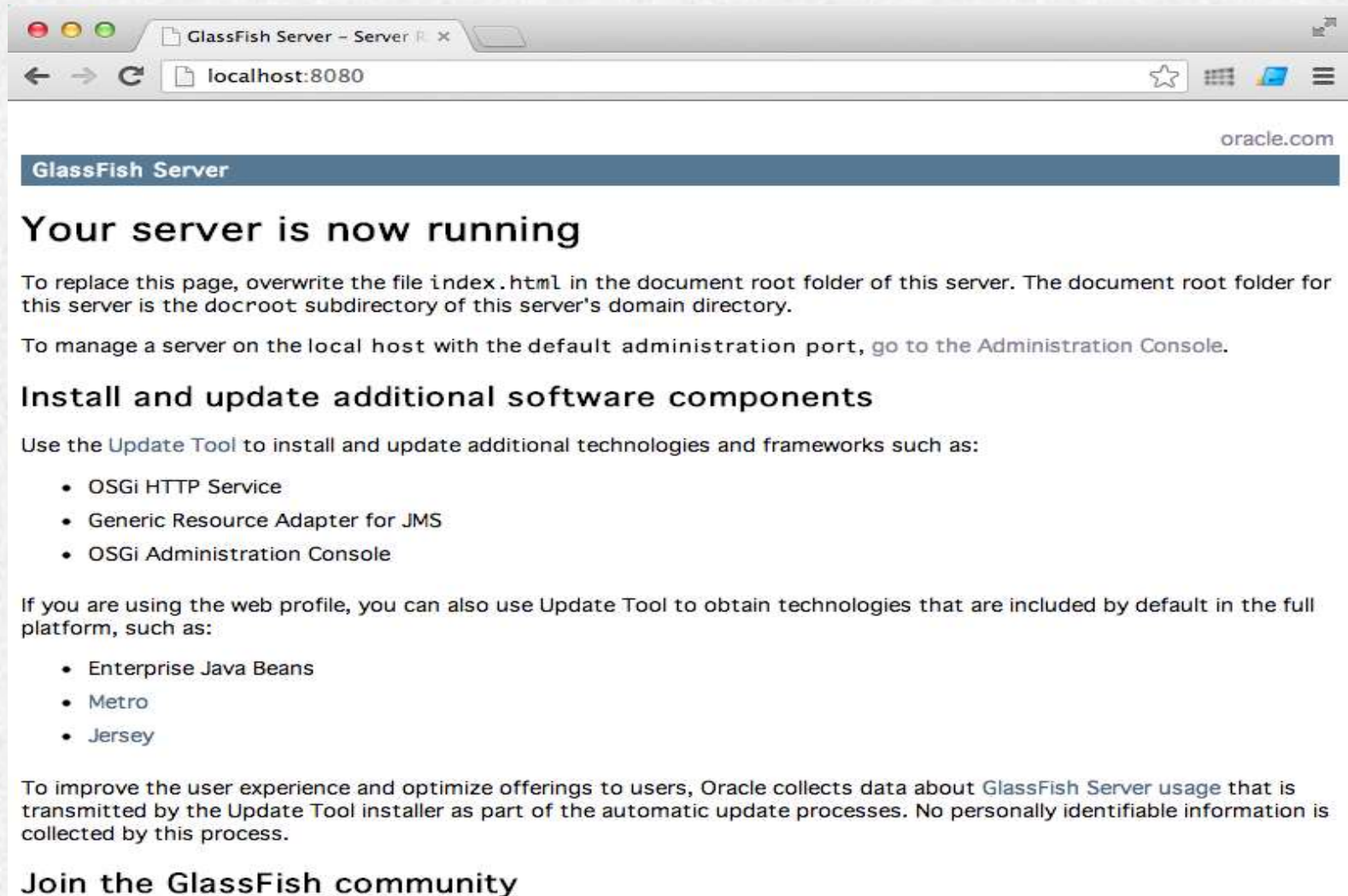
# Iniciar o GlassFish

- Na pasta **bin** e executar o comando **asadmin start-domain**:

```
C:\>cd glassfish4\bin
C:\glassfish4\bin>asadmin start-domain
Waiting for domain1 to start .....
Successfully started the domain : domain1
domain Location: C:\glassfish4\glassfish\domains\domain1
Log File:
C:\glassfish4\glassfish\domains\domain1\logs\server.log
Admin Port: 4848
Command start-domain executed successfully.
```



# GlassFish em execução



The screenshot shows a web browser window with the title "GlassFish Server - Server". The address bar displays "localhost:8080". The page content includes the "GlassFish Server" logo, a status message "Your server is now running", and instructions on how to manage the server and install additional components. The page also mentions the "Update Tool" and lists various technologies that can be installed or updated, such as OSGi HTTP Service, Generic Resource Adapter for JMS, OSGi Administration Console, Enterprise Java Beans, Metro, and Jersey. A notice at the bottom states that Oracle collects data about GlassFish Server usage to improve the user experience and optimize offerings to users. The page concludes with a link to "Join the GlassFish community".

**GlassFish Server**

## Your server is now running

To replace this page, overwrite the file `index.html` in the document root folder of this server. The document root folder for this server is the `docroot` subdirectory of this server's domain directory.

To manage a server on the local host with the default administration port, [go to the Administration Console](#).

## Install and update additional software components

Use the [Update Tool](#) to install and update additional technologies and frameworks such as:

- OSGi HTTP Service
- Generic Resource Adapter for JMS
- OSGi Administration Console

If you are using the web profile, you can also use Update Tool to obtain technologies that are included by default in the full platform, such as:

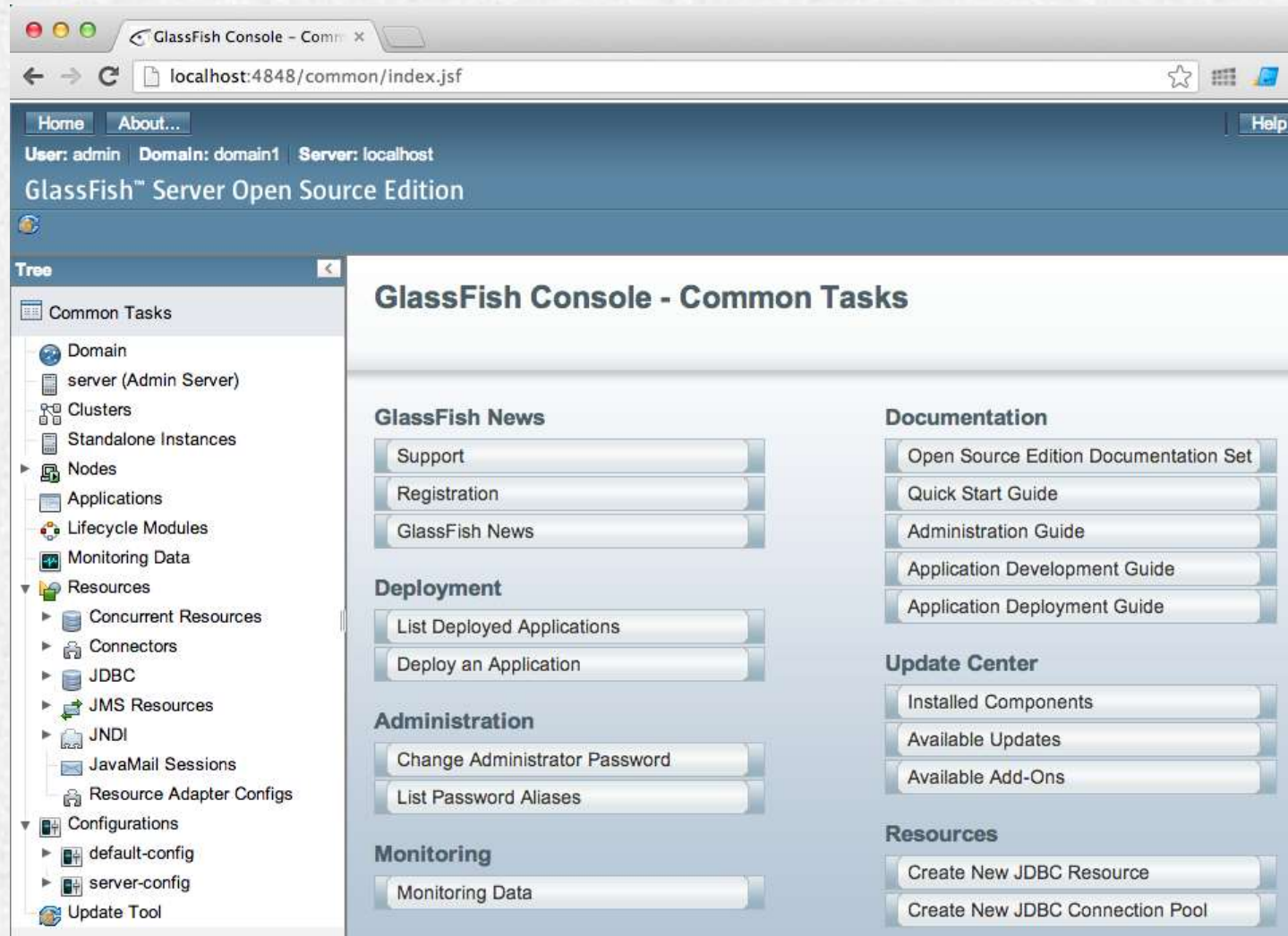
- Enterprise Java Beans
- Metro
- Jersey

To improve the user experience and optimize offerings to users, Oracle collects data about [GlassFish Server usage](#) that is transmitted by the Update Tool installer as part of the automatic update processes. No personally identifiable information is collected by this process.

[Join the GlassFish community](#)

**http://localhost:8080**

# Console de administração



<http://localhost:4848>

# Parar o GlassFish

- Na pasta **bin** e executar o comando **asadmin stop-domain**:

```
C:\>cd glassfish4\bin
```

```
C:\glassfish4\bin>asadmin stop-domain
```

```
Waiting for the domain to stop .
```

```
Command stop-domain executed successfully.
```



# Conceito de domínio

- O domínio é um agrupamento de instâncias que são administradas em conjunto;
- **domain1** criado por padrão;
- **4848** é a porta de administração padrão;
- O domínio fornece:
  - Ambiente de execução preconfigurado;
  - Administração de recursos;
  - Estrutura básica de segurança;
  - Entre outros.

# Iniciar um domínio

- Para iniciar um domínio em específico, utilize o comando:

**asadmin start-domain NomeDominio**

- Para parar um domínio em específico, utilize o comando:

**asadmin stop-domain NomeDominio**

# Gerenciar aplicações

Ao publicar aplicações dentro de um Servidor de Aplicações Web Java EE temos um ambiente que oferece alguns recursos:

- conexão com o banco de dados;
- fila de mensageria;
- gerenciamento do ciclo de vida de componentes EJB;
- entre outros.



# Publicar uma aplicação

## Applications

Applications can be enterprise or web applications, or various kinds of modules. Restart an application or module by clicking on the reload link, this action will apply only to the targets that the application or module is enabled on.

### Deployed Applications (2)

☒

☐

Deploy...

Undeploy

Enable

Disable

Filter:

	Name	↑↓	Enabled	↑↓	Engines	↑↓	Action
<input type="checkbox"/>	CinemaREST		✓		web		Launch   Redeploy   Reload
<input type="checkbox"/>	Valet		✓		web		Launch   Redeploy   Reload

# Publicar uma aplicação

**Deploy Applications or Modules**

OKCancel

Specify the location of the application or module to deploy. An application can be in a packaged file or specified as a directory.

\* Indicates required field

Location: ☒ **Packaged File to Be Uploaded to the Server**


No file chosen

☐ **Local Packaged File or Directory That Is Accessible from GlassFish Server**

---

Type: \*

OKCancel

 Universidade  
**Metodista**  
de São Paulo

Campus  
EAD

# Publicar uma aplicação

**Deploy Applications or Modules**

OKCancel

Specify the location of the application or module to deploy. An application can be in a packaged file or specified as a directory.

\* Indicates required field

**Location:** ☒ **Packaged File to Be Uploaded to the Server**

CinemaREST.war

☐ **Local Packaged File or Directory That Is Accessible from GlassFish Server**

---

**Type:** \*

**Context Root:**   
Path relative to server's base URL.

**Application Name:** \*

**Virtual Servers:**

server

  
Associates an Internet domain name with a physical server.

**Status:** ☒ **Enabled**  
Allows users to access the application.

**Precompile JSPs:** ☐  
Precompiles JSP pages during deployment.

**Run Verifier:** ☐  
Verifies the syntax and semantics of the deployment descriptor. Verifier packages must be installed.

**Force Redeploy:** ☐  
Forces redeployment even if this application has already been deployed or already exists.

**Keep State:** ☐  
Retains web sessions, SFSB instances, and persistently created EJB timers between redeployments.

Universidade  
**Metodista**  
de São Paulo

Campus  
**EAD**



# Desinstalar uma aplicação

## Applications

Applications can be enterprise or web applications, or various kinds of modules. Restart an application or module by clicking on the reload link, this action will apply only to the targets that the application or module is enabled on.

### Deployed Applications (2)

Deploy...

Undeploy

Enable

Disable

Filter:

	Name	Enabled	Engines	Action
<input checked="" type="checkbox"/>	CinemaREST	✓	web	Launch   Redeploy   Reload
<input type="checkbox"/>	Valet	✓	web	Launch   Redeploy   Reload

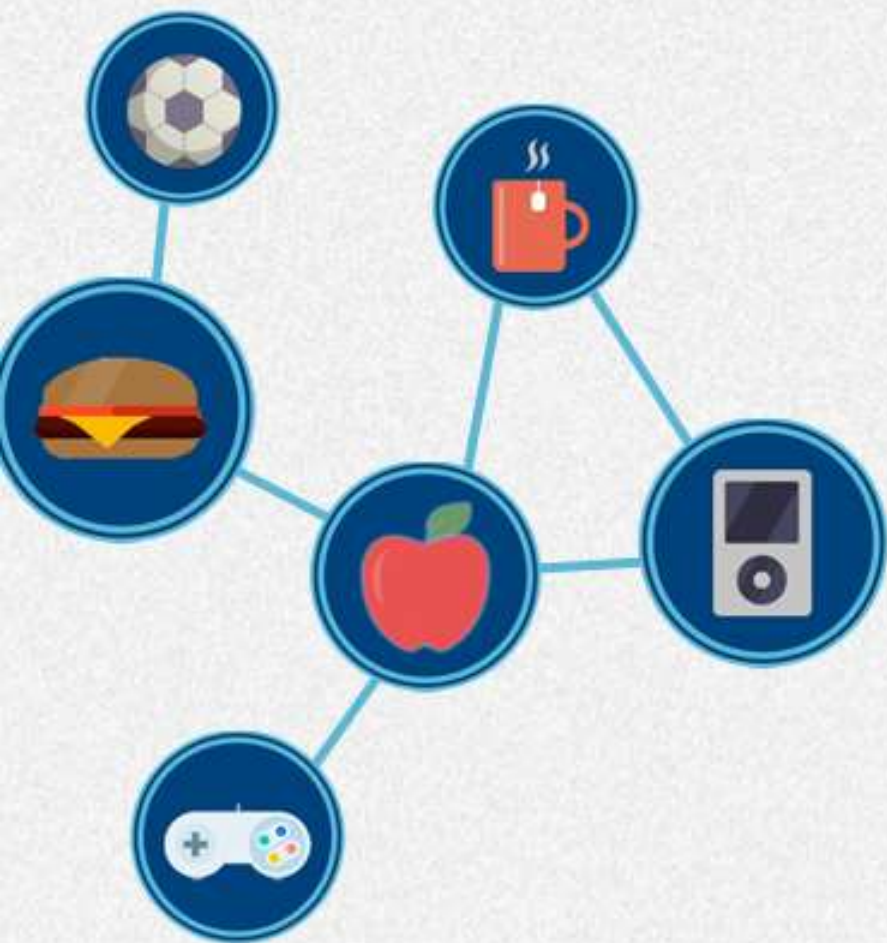


**The page at localhost:4848 says:**

Selected Application(s) will be undeployed.  
Continue ?

Cancel

OK



# Intervalo



Universidade  
**Metodista**  
de São Paulo

Campus  
EAD

# Configurar pool de conexões

- Gerenciamento das conexões com banco de dados para utilização das aplicações instaladas no servidor;
- Pode ser criada uma conexão com diversos bancos de dados;
- As informações do banco de dados ficam no servidor web.



# Adicionar driver do banco de dados

- Antes de criar uma conexão com banco de dados é necessário adicionar o driver JDBC no GlassFish na pasta **../glassfish4/glassfish/domains/domain1/lib**;
- **ojdbc7.jar** é o driver do Oracle Database 11g Express;
- Reiniciar o servidor após adicionar novo arquivo **.jar**.

# Criar pool de conexões

**Tree**

Common Tasks

Domain

- server (Admin Server)
- Clusters
- Standalone Instances

Nodes

Applications

Lifecycle Modules

Monitoring Data

Resources

- Concurrent Resources
- Connectors
- JDBC
  - JDBC Resources
  - JDBC Connection Pools
    - DerbyPool
    - \_\_TimerPool

## JDBC Connection Pools

To store, organize, and retrieve data, most applications use relational databases. Java EE applications access relational databases through the JDBC API. Before an application can access a database, it must get a connection.

**Pools (2)**

☒ ☐

New...Delete

Select	Pool Name	Resource Type	Classname	Description
<input type="checkbox"/>	DerbyPool	javax.sql.DataSource	org.apache.derby.jdbc.ClientDataSource	
<input type="checkbox"/>	__TimerPool	javax.sql.XADataSource	org.apache.derby.jdbc.EmbeddedXADataSource	

# Criar pool de conexões

## New JDBC Connection Pool (Step 1 of 2)

[Next](#)[Cancel](#)

Identify the general settings for the connection pool.

\* Indicates required field

### General Settings

**Pool Name:** \*

**Resource Type:**

Must be specified if the datasource class implements more than 1 of the interface.

**Database Driver Vendor:**

Select or enter a database driver vendor

**Introspect:**

☒ **Enabled**

If enabled, data source or driver implementation class names will enable introspection.



# Criar pool de conexões

## New JDBC Connection Pool (Step 2 of 2)

[Previous](#)[Finish](#)[Cancel](#)

Identify the general settings for the connection pool. Datasource Classname or Driver Classname must be specified for the connection pool.

\* Indicates required field

### General Settings

Pool Name: OraclePool

Resource Type: javax.sql.ConnectionPoolDataSource

Database Driver Vendor: Oracle

Datasource Classname: oracle.jdbc.pool.OracleConnectionPoolDataSource

Select or enter vendor-specific classname that implements the DataSource and/or XADataSource APIs

Driver Classname:

Select or enter vendor-specific classname that implements the java.sql.Driver interface.

Ping: ☐ Enabled

When enabled, the pool is pinged during creation or reconfiguration to identify and warn of any erroneous values for its attributes

Description:

# Criar pool de conexões

**Additional Properties (8)**

☒ ☐ |

Select	Name	Value	Description
<input checked="" type="checkbox"/>	portNumber		
<input checked="" type="checkbox"/>	databaseName		
<input checked="" type="checkbox"/>	datasourceName		
<input checked="" type="checkbox"/>	roleName		
<input checked="" type="checkbox"/>	networkProtocol		
<input checked="" type="checkbox"/>	serverName		
<input checked="" type="checkbox"/>	user		
<input checked="" type="checkbox"/>	password		

# Criar pool de conexões

Additional Properties (3)			
<input type="checkbox"/> <input type="checkbox"/>   <input type="button" value="Add Property"/> <input type="button" value="Delete Properties"/>			
Select	Name <input type="text"/>	Value <input type="text"/>	Description <input type="text"/>
<input type="checkbox"/>	user	root	
<input type="checkbox"/>	password	root	
<input type="checkbox"/>	url	jdbc:oracle:thin:@localhost:1521:XE	



# Criar pool de conexões

General	Advanced	Additional Properties
<div>✓ Ping Succeeded</div> <h2>Edit JDBC Connection Pool</h2> <p>Modify an existing JDBC connection pool. A JDBC connection pool is a group of reusable connections for a particular database.</p> <div>Load Defaults Flush Ping</div> <h3>General Settings</h3> <p>Pool Name: OraclePool</p>		

# Criar recurso JDBC

**Tree**

Common Tasks

Domain

server (Admin Server)

Clusters

Standalone Instances

Nodes

Applications

Lifecycle Modules

Monitoring Data

Resources

Concurrent Resources

Connectors

JDBC

JDBC Resources

jdbc/ \_\_TimerPool

jdbc/ \_\_default

## JDBC Resources

JDBC resources provide applications with a means to connect to a database.

Resources (2)

New...

Delete

Enable

Disable

Select	JNDI Name	Logical JNDI Name	Enabled	Connection Pool	Description
<input type="checkbox"/>	jdbc/ __TimerPool		✓	__TimerPool	
<input type="checkbox"/>	jdbc/ __default	java:comp/DefaultDataSource	✓	DerbyPool	

# Criar recurso JDBC

## New JDBC Resource

OKCancel

Specify a unique JNDI name that identifies the JDBC resource you want to create. The name must contain only alphanumeric, underscore, dash, or dot characters.

**JNDI Name:** \*

**Pool Name:**

Use the [JDBC Connection Pools](#) page to create new pools

**Description:**

**Status:** ☒ Enabled

Additional Properties (0)

Add PropertyDelete Properties

Name	Value	Description:
No items found.		



# Criar recurso JDBC

## JDBC Resources

JDBC resources provide applications with a means to connect to a database.

### Resources (3)

[New...](#)[Delete](#)[Enable](#)[Disable](#)

Select	JNDI Name	Logical JNDI Name	Enabled	Connection Pool	Description
<input type="checkbox"/>	jdbc/ExemploOracle		✓	OraclePool	
<input type="checkbox"/>	jdbc/__TimerPool		✓	__TimerPool	
<input type="checkbox"/>	jdbc/__default	java:comp/DefaultDataSource	✓	DerbyPool	

# WildFly



WildFly é um projeto open source de um servidor de aplicações Java EE, disponível para download em <http://wildfly.org>.

# WildFly

- Servidor de aplicações web compatível com o Java EE 7.
- Atualmente, está na versão 8.1.0 e pode ser baixado gratuitamente em <http://wildfly.org/downloads/>.
- O site possui uma documentação completa sobre a instalação, administração e uso do WildFly: <https://docs.jboss.org/author/display/WFLY8/Documentation>.

# Instalação do WildFly

- Pré-requisito Java SE 7 ou superior.
- Fazer o download do arquivo wildfly-8.1.0.Final.zip.
- Descompactar o arquivo zip.














# WildFly

Através do WildFly é possível:

- gerenciamento de aplicações;
- *pools* de conexões com banco de dados;
- filas de mensageria;
- configuração de *cluster*;
- load balance;
- monitoramento dos recursos;
- configuração de segurança;
- entre outras funcionalidades.

# Estrutura do WildFly

Script de inicialização, configuração e utilitário de linha de comando.

- ▶  appclient
- ▶  bin
-  copyright.txt
- ▶  docs
- ▶  domain
-  jboss-modules.jar
-  LICENSE.txt
- ▶  modules
-  README.txt
- ▶  standalone
- ▶  welcome-content

# Iniciar o WildFly

- Na pasta **bin**, execute o comando **standalone.bat**.

```
C:\>cd wildfly-8.1.0.Final\bin
```

```
C:\wildfly-8.1.0.Final\bin>standalone.bat
```

...

```
INFO [org.jboss.as] (Controller Boot Thread)
```

```
JBAS015874: WildFly 8.1.0.Final "Kenny" started in  
2163ms - Started 184 of 233 services (81 services are  
lazy, passive or on-demand)
```



# WildFly em execução



<http://localhost:8080>



# Criando um usuário de administração

- Na pasta **bin**, execute o comando **add-user.bat**.

What type of user do you wish to add?

- a) Management User (mgmt-users.properties)
- b) Application User (application-users.properties)

(a): **a**

# Criando um usuário de administração

Enter the details of the new user to add.

Using realm 'ManagementRealm' as discovered from the existing property files.

Username : **nome-usuario**

Password recommendations are listed below. To modify these restrictions edit the add-user.properties configuration file.

- The password should not be one of the following restricted values {root, admin, administrator}
- The password should contain at least 8 characters, 1 alphabetic character(s), 1 digit(s), 1 non-alphanumeric symbol(s)
- The password should be different from the username

Password : \*\*\*\*\*

Re-enter Password : \*\*\*\*\*

# Criando um usuário de administração

What groups do you want this user to belong to? (Please enter a comma separated list, or leave blank for none)[ ]:

About to add user 'nome-usuario' for realm 'ManagementRealm'

Is this correct yes/no? **yes**



# Criando um usuário de administração

Added user 'nome-usuario' to file 'C:/wildfly-  
8.1.0.Final/standalone/configuration/mgmt-users.properties'

Added user 'nome-usuario' to file 'C:/wildfly-  
8.1.0.Final/domain/configuration/mgmt-users.properties'

Added user 'nome-usuario' with groups to file 'C:/wildfly-  
8.1.0.Final/standalone/configuration/mgmt-groups.properties'

Added user 'nome-usuario' with groups to file 'C:/wildfly-  
8.1.0.Final/domain/configuration/mgmt-groups.properties'

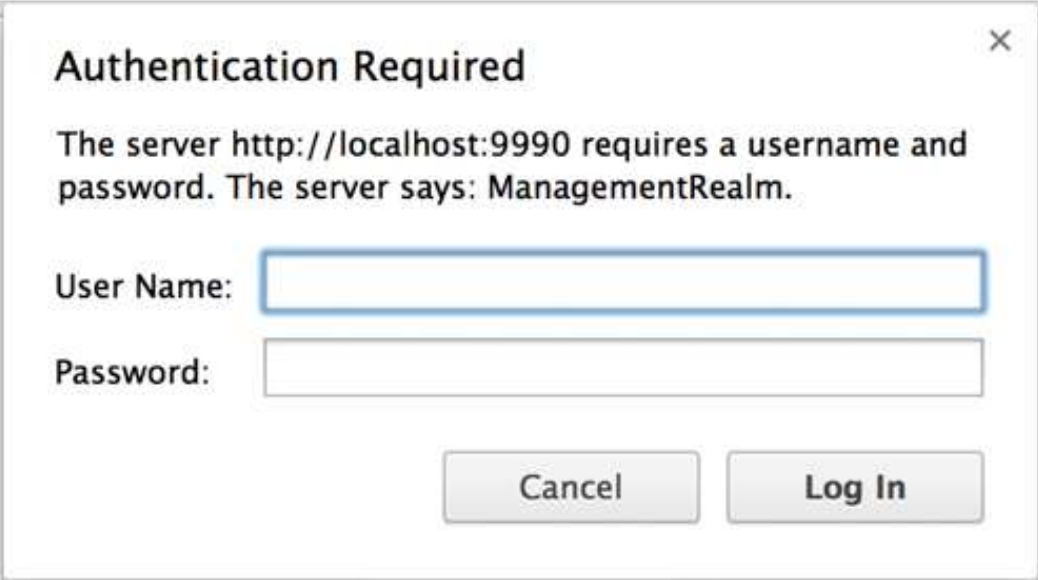
Is this new user going to be used for one AS process to connect to  
another AS process?

e.g. for a slave host controller connecting to the master or for a Remoting  
connection for server to server EJB calls.

yes/no? **no**



# Console de administração




**Authentication Required** ×

The server `http://localhost:9990` requires a username and password. The server says: `ManagementRealm`.

User Name:

Password:

 Loading ...

<http://localhost:9990/console>

# WildFly

## View and Manage Settings

### Configuration

Configure your server profiles, including the attributes and settings that define subsystems and resources available to your servers.

### Administration

Perform administrative tasks for your server, including role-based access control.

### Runtime

Monitor server status, retrieve diagnostic information, manage deployments, and perform other operational tasks.

## Common Tasks

### Deploy an application

To deploy an application.

1. Add a deployment.
2. Enable the new deployment.

> [Create Deployment](#)

### Create a datasource

Add a new datasource and follow the steps in the Create Datasource wizard.

> [Datasources](#)

### Apply a patch

Update to the latest patch level. The patch file must be downloaded to your local machine prior to starting this process.

> [Patch Management](#)

### Assign user roles

Assign roles to individual users or user groups to secure access to system resources.

1. Add user or group.
2. Enter user or group name and realm
3. Assign one or more roles to that user or group

> [Role Assignment](#)

## Find More Resources

### General Resources

[WildFly Home](#)

[WildFly Documentation](#)

[Admin Guide](#)

[Model Reference Documentation](#)

[Browse Issues](#)

[Latest News](#)

### Get Help

[Access tutorials and quickstarts](#)

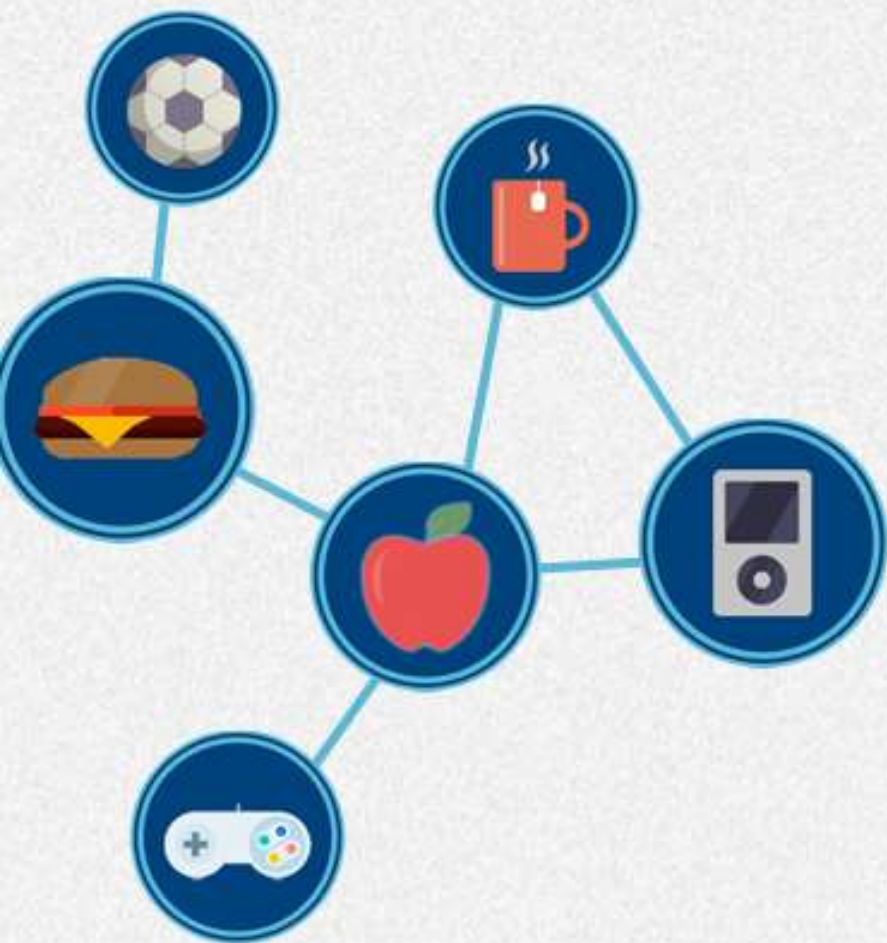
[User Forums](#)

[IRC](#)

[Developers Mailing List](#)

# Parar o WildFly

- No console que iniciou o WildFly, aperte **CTRL+C**.



# Intervalo



Universidade  
**Metodista**  
de São Paulo

Campus  
EAD



# Command Line Interface (CLI)

O WildFly fornece um ambiente para conectar e executar comandos.

```
C:\glassfish4\bin>jboss-cli.bat --connect  
[standalone@localhost:9990 /]
```

- E para desconectar:

```
[standalone@localhost:9990 /] quit
```

# Publicar aplicação

Para publicar uma aplicação via CLI, execute:

```
[standalone@localhost:9990 /] deploy C:\Valet.war
```

# Informação das publicações

Para obter informações sobre as aplicações publicadas via CLI, execute:

**[standalone@localhost:9990 /] deployment-info**

NAME	RUNTIME-NAME	PERSISTENT	ENABLED	STATUS
------	--------------	------------	---------	--------

CinemaREST.war	CinemaREST.war	true	true	OK
----------------	----------------	------	------	----

LoginEJB.jar	LoginEJB.jar	true	true	OK
--------------	--------------	------	------	----

Tarefas.war	Tarefas.war	true	true	OK
-------------	-------------	------	------	----

Valet.war	Valet.war	true	true	OK
-----------	-----------	------	------	----

# Publicar aplicação

## Common Tasks

### Deploy an application

To deploy an application.

1. Add a deployment.
2. Enable the new deployment.

> [Create Deployment](#)

### Apply a patch

Update to the latest patch level. The patch file must be downloaded to your local machine prior to starting this process.

> [Patch Management](#)

### Create a datasource

Add a new datasource and follow the steps in the Create Datasource wizard.

> [Datasources](#)

### Assign user roles

Assign roles to individual users or user groups to secure access to system resources.

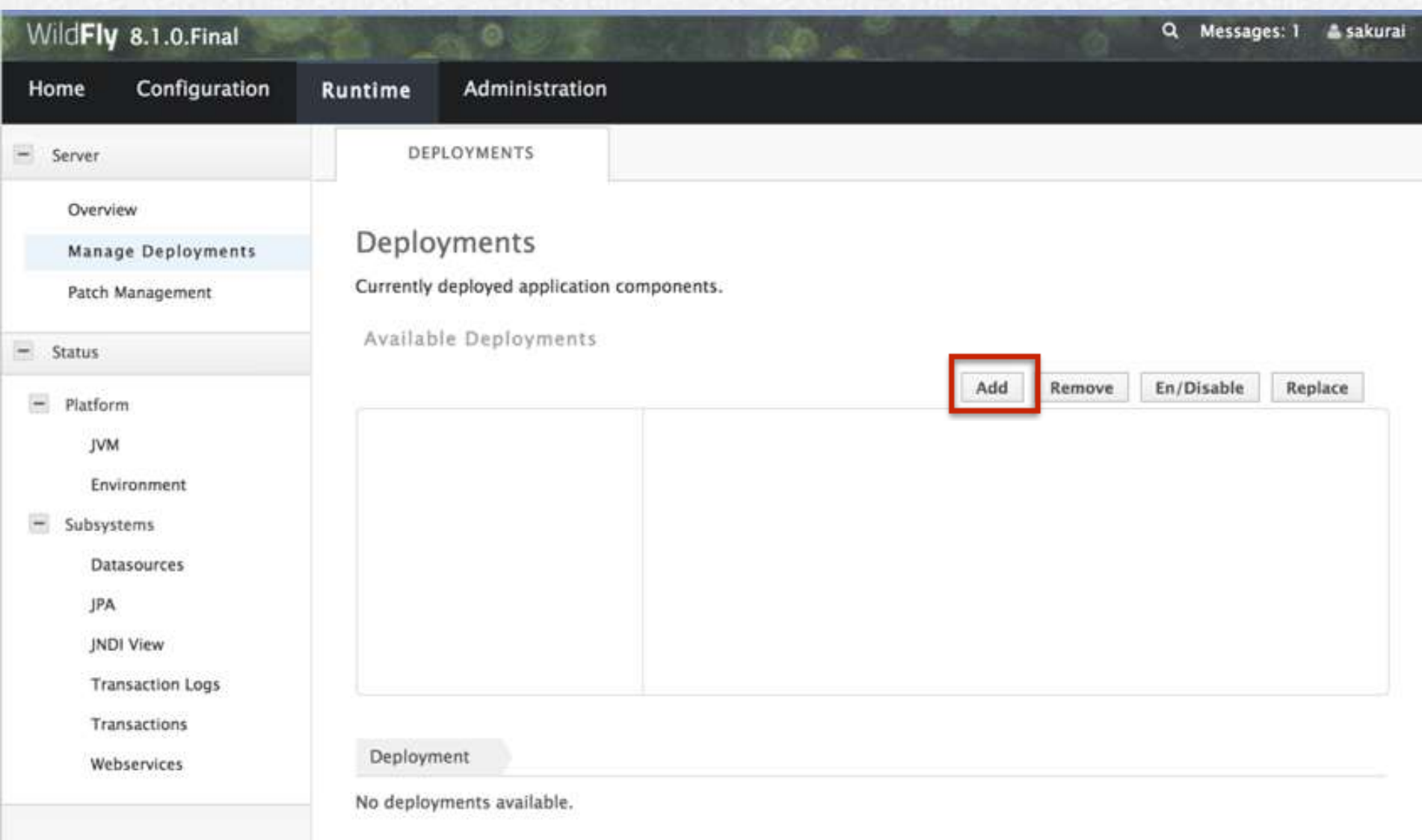
1. Add user or group.
2. Enter user or group name and realm
3. Assign one or more roles to that user or group

> [Role Assignment](#)

<http://localhost:9990/console>



# Publicar aplicação



The screenshot shows the WildFly 8.1.0.Final Administration Console. The top navigation bar includes 'Home', 'Configuration', 'Runtime' (selected), and 'Administration'. The left sidebar contains a tree view with 'Server' (expanded) showing 'Overview', 'Manage Deployments' (selected), and 'Patch Management'; 'Status'; 'Platform' (expanded) showing 'JVM' and 'Environment'; and 'Subsystems' (expanded) showing 'Datasources', 'JPA', 'JNDI View', 'Transaction Logs', 'Transactions', and 'Webservices'. The main content area is titled 'DEPLOYMENTS' and 'Deployments'. It states 'Currently deployed application components.' and 'Available Deployments'. A toolbar contains four buttons: 'Add' (highlighted with a red box), 'Remove', 'En/Disable', and 'Replace'. Below the toolbar is a table with two columns, 'Deployment' and an empty column. The table is currently empty, and a message at the bottom states 'No deployments available.'

WildFly 8.1.0.Final

Messages: 1 sakurai

Home Configuration **Runtime** Administration

Server

- Overview
- Manage Deployments**
- Patch Management

Status

- Platform
  - JVM
  - Environment
- Subsystems
  - Datasources
  - JPA
  - JNDI View
  - Transaction Logs
  - Transactions
  - Webservices

DEPLOYMENTS

## Deployments

Currently deployed application components.

Available Deployments

**Add** Remove En/Disable Replace

Deployment	
------------	--

No deployments available.

# Publicar aplicação

Create Deployment

Managed

Unmanaged

Step1 / 2: Deployment Selection

Please choose a file that you want to deploy.

Choose File

No file chosen

Cancel

Next >>

# Publicar aplicação

Create Deployment

Step 2/2: Verify Deployment Names

Key:

abgr860VazWUQ575xKoO0Sxswfg=

Name:

Valet.war

Runtime Name:

Valet.war

Cancel

Save


# Publicar aplicação

## Deployments

Currently deployed application components.

Available Deployments

Add Remove En/Disable Replace

Valet.war 

Informa que a aplicação está desativada.

Deployment

[Need Help?](#)

Name: Valet.war

Runtime Name: Valet.war



# Publicar aplicação



# Publicar aplicação

## Deployments

Currently deployed application components.

Available Deployments

Add Remove En/Disable Replace

Valet.war ✓

Informa que a aplicação está habilitada.

Deployment

Need Help?

Name: Valet.war

Runtime Name: Valet.war

# Despublicar aplicação via CLI

Para despublicar uma aplicação via CLI, execute:

**[standalone@localhost:9990 /] undeploy Valet.war**

# Despublicar aplicação

## Deployments

Currently deployed application components.

Available Deployments

Add **Remove** En/Disable Replace

Valet.war ✓

Deployment

Need Help?

Name: Valet.war

Runtime Name: Valet.war



# Configurar pool de conexões

- Gerenciamento das conexões com o banco de dados para utilização das aplicações instaladas no servidor;
- Pode ser criada uma conexão com diversos bancos de dados;
- As informações do banco de dados ficam no servidor web.

# Adicionar o driver do BD

- O driver é a API que realiza a conexão e a interação com o banco de dados;
- Antes de criar um pool de conexões, é necessário ter o driver do banco de dados instalado no WildFly;
- Um driver pode ser publicado como uma aplicação.

# Publicando o driver do BD

The screenshot shows the WildFly 8.1.0.Final Administration Console. The top navigation bar includes 'Home', 'Configuration', 'Runtime', and 'Administration'. The 'Runtime' tab is selected. On the left, the 'Server' section is expanded, showing 'Overview', 'Manage Deployments' (highlighted), and 'Patch Management'. Below this, the 'Status' section is expanded, showing 'Platform' (JVM, Environment) and 'Subsystems' (Datasources, JPA, JNDI View, Transaction Logs, Transactions, Webservices). The main content area is titled 'DEPLOYMENTS' and 'Deployments'. It shows 'Currently deployed application components.' and 'Available Deployments'. A table lists the available deployments, with 'ojdbc7.jar' selected. To the right of the table are buttons: 'Add', 'Remove', 'En/Disable' (highlighted with a blue box), and 'Replace'. Below the table, there is a 'Deployment' section with fields for 'Name:' and 'Runtime Name:', both containing 'ojdbc7.jar'. A 'Need Help?' link is visible in the bottom right corner of the deployment section.

WildFly 8.1.0.Final Messages: 2 admin

Home Configuration Runtime Administration

Server

- Overview
- Manage Deployments
- Patch Management

Status

- Platform
  - JVM
  - Environment
- Subsystems
  - Datasources
  - JPA
  - JNDI View
  - Transaction Logs
  - Transactions
  - Webservices

DEPLOYMENTS

## Deployments

Currently deployed application components.

Available Deployments

Add Remove En/Disable Replace

ojdbc7.jar	✓
------------	---

Deployment

Need Help?

Name: ojdbc7.jar

Runtime Name: ojdbc7.jar

# Criar o pool de conexões

O pool de conexões mantém as informações para acessar um banco de dados e as configurações dessa conexão.



# Via CLI

- Criar datasource:

```
data-source add --name=TesteDS --driver-name=ojdbc7.jar --jndi-name=java:jboss/jdbc/teste --connection-url=jdbc:oracle:thin:@localhost:1521:XE --user-name=usuario --password=senha
```

- Remover datasource:

```
data-source remove --name=TesteDS
```

# WildFly

## View and Manage Settings

### Configuration

Configure your server profiles, including the attributes and settings that define subsystems and resources available to your servers.

### Administration

Perform administrative tasks for your server, including role-based access control.

### Runtime

Monitor server status, retrieve diagnostic information, manage deployments, and perform other operational tasks.

## Common Tasks

### Deploy an application

To deploy an application.

1. Add a deployment.
2. Enable the new deployment.

> [Create Deployment](#)

### Apply a patch

Update to the latest patch level. The patch file must be downloaded to your local machine prior to starting this process.

> [Patch Management](#)

### Create a datasource

Add a new datasource and follow the steps in the Create Datasource wizard.

> [Datasources](#)

### Assign user roles

Assign roles to individual users or user groups to secure access to system resources.

1. Add user or group.
2. Enter user or group name and realm
3. Assign one or more roles to that user or group

> [Role Assignment](#)

## Find More Resources

### General Resources

[WildFly Home](#)

[WildFly Documentation](#)

[Admin Guide](#)

[Model Reference Documentation](#)

[Browse Issues](#)

[Latest News](#)

### Get Help

[Access tutorials and quickstarts](#)

[User Forums](#)

[IRC](#)

[Developers Mailing List](#)

# JDBC Datasources

WildFly 8.1.0.Final

Messages: 0admin

HomeConfigurationRuntimeAdministration

Subsystems

Connector

JCA

Datasources

Resource Adapters

Mail

Container

Core

Infinispan

Security

Web

General Configuration

Interfaces

Socket Binding

Paths

System Properties

DATASOURCESXA DATASOURCES

## JDBC Datasources

JDBC datasource configurations.

Available Datasources

AddRemoveDisable

Name	JNDI	Enabled?
ExampleDS	java:jboss/datasources/ExampleDS	✓

<<<1-1 of 1>>>

Selection

AttributesConnectionSecurityPropertiesPoolValidation

Edit

Name:

ExampleDS

JNDI:

java:jboss/datasources/ExampleDS

Is enabled?:

true

Need Help?

# Definição de Nome e JNDI

Create Datasource

Step 1 / 3: Datasource Attributes

[Need Help?](#)

Name:

JNDI Name:



# Definir o driver do DB

Create Datasource

Step 2/3: JDBC Driver

Select one of the deployed JDBC driver.

Detected Driver

Specify Driver

Name
ojdbc7.jar
h2

<< < 1-2 of 2 > >>

Cancel

Next >>

# Definir informações de conexão

Create Datasource

Step 3/3: Connection Settings

[Need Help?](#)

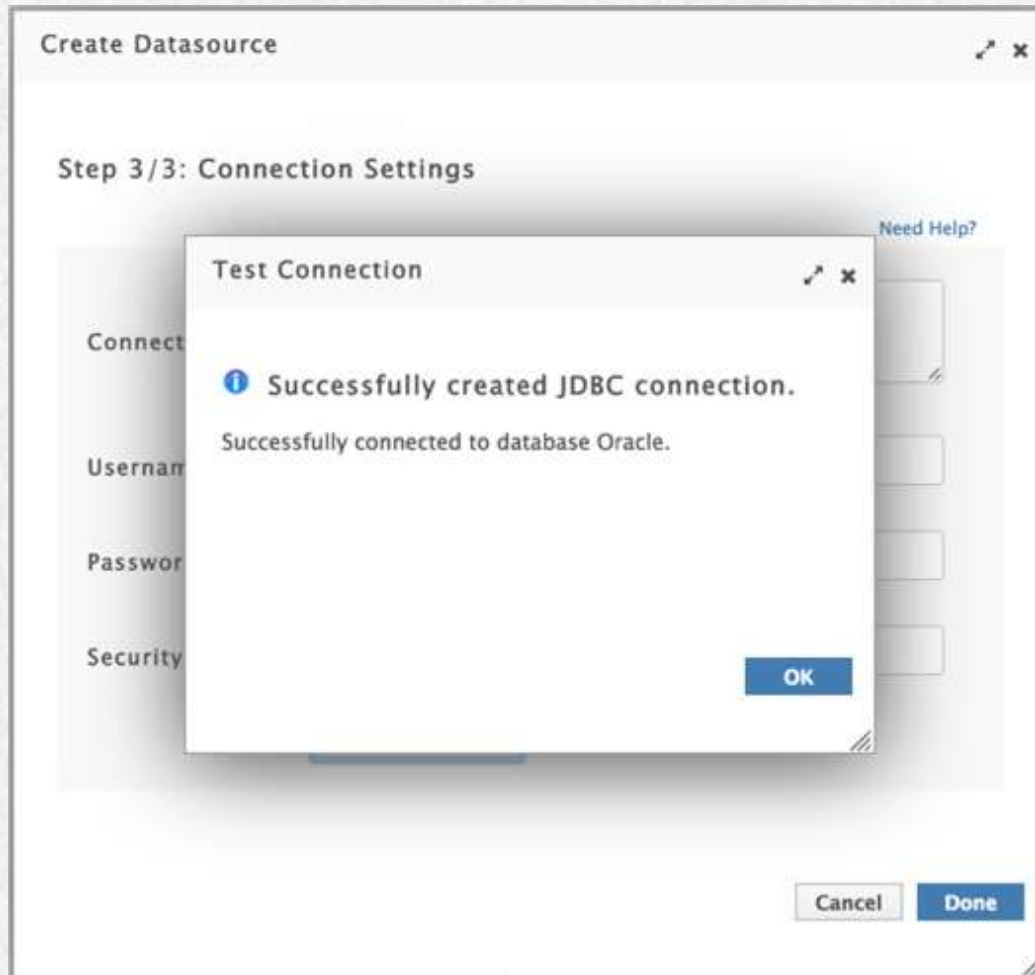
Connection URL:

Username:

Password:

Security Domain:

# Teste de conexão



# Ativar ou desativar conexão

DATASOURCES

XA DATASOURCES

## JDBC Datasources

JDBC datasource configurations.

Available Datasources

Add

Remove

Enable

Name	JNDI	Enabled?
ExampleDS	java:jboss/datasources/ExampleDS	✓
Oracle	java:jboss/jdbc/oracle	⊘

1-2 of 2

Selection

Attributes

Connection

Security

Properties

Pool

Validation

Need Help?

Edit

Name:

Oracle

JNDI:

java:jboss/jdbc/oracle

Is enabled?:

false

Datasource Class:

Driver:

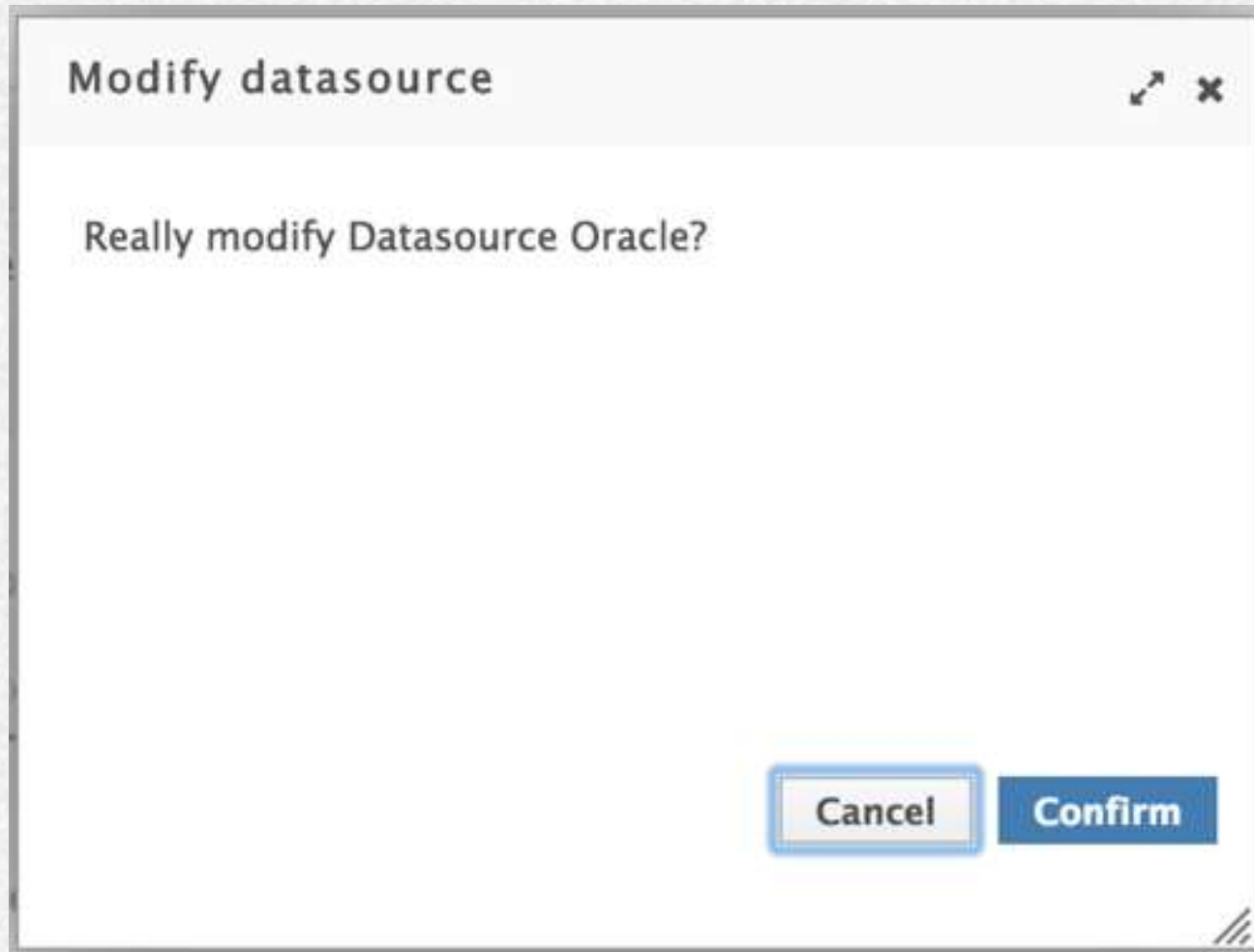
ojdbc7.jar

Driver Class:

oracle.jdbc.OracleDriver



# Ativar ou desativar conexão



# Exercícios

1. Instalar o GlassFish e WildFly;
2. Publicar aplicação;
3. Criar pool de conexões com banco de dados e publicar aplicação.