

Tutorial

Instalação do Servidor Cartográfico Geoserver

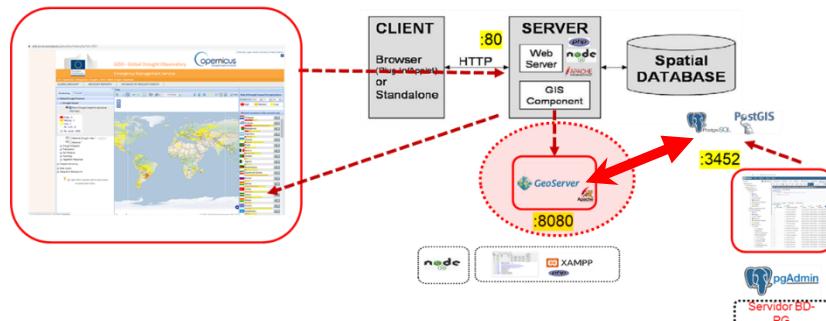
(versão 1)

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Tema

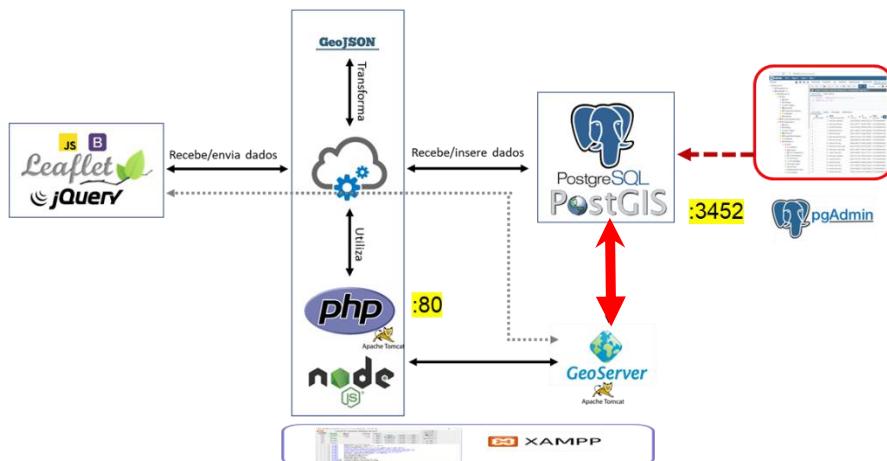
Instalação do servidor cartográfico Geoserver e ligação à base de dados PostGreSQL e a serviços externos WFS e WMS:



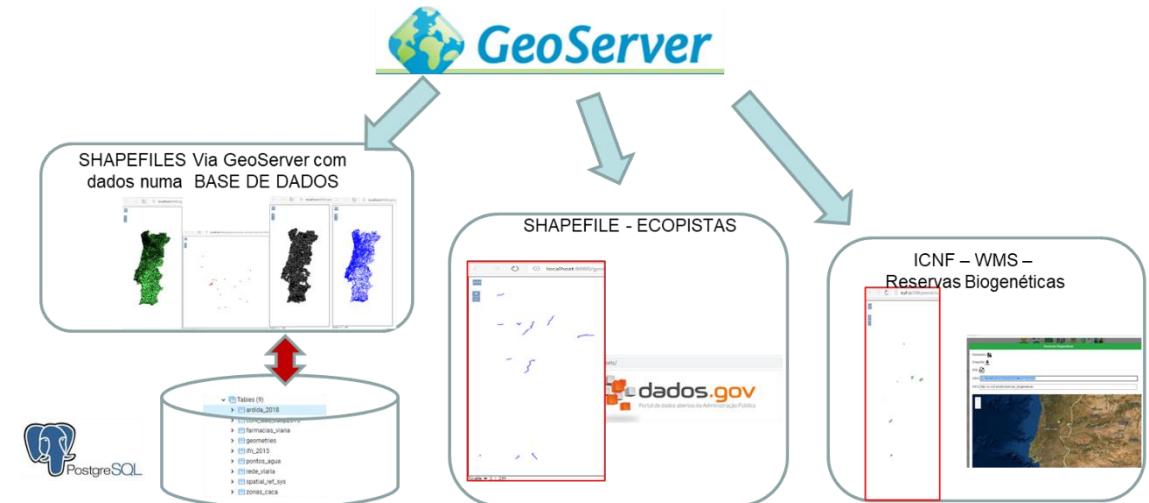
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No final deste tutorial serão configuradas ligações a várias fontes de dados:



Bibliografia Recomendada

Para apoio a este tutorial os alunos devem consultar os apontamentos teóricos e práticos da disciplina bem como links associados a:

- Fonte: <http://geoserver.org/>
- Tutorial de instalação: <https://docs.geoserver.org/stable/en/user/installation/index.html>
- Tutoriais de exploração: <https://docs.geoserver.org/stable/en/user/index.html>

1. Instalação do Geoserver

Selecione a última versão e o tipo de sistema operativo onde vai instalar o geoserver:

<https://docs.geoserver.org/stable/en/user/installation/index.html>

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The screenshot shows the official GeoServer website. At the top, there's a navigation bar with links to About, Blog, Download, Documentation, and Community. Below the navigation is a banner with the text "GeoServer is an open source server for sharing geospatial data. Designed for interoperability, it publishes data from any major spatial data source using open standards." To the left is a map of a region with Arabic place names. To the right, there's a "Download" section with tabs for Stable (2.18.1 Nightly), Maintenance (2.17.4 Nightly), and Development (Master). Below the download tabs is a "News" section.

docs.geoserver.org/stable/en/user/installation/index.html

This screenshot shows a specific page from the GeoServer User Manual titled "Installation". The page includes a note about running GeoServer in a servlet container like Tomcat and a warning about Java requirements. It lists several installation paths: Windows binary, Mac OS X binary, Linux binary, Web archive, and Upgrading existing versions. A note at the bottom states that Windows installers are no longer provided. The page has a "previous" and "next" link, a "modules" link, and a sidebar with "Continue", "This Page", and "Edit" links.

geoserver.org/release/stable/

This screenshot shows the release page for GeoServer 2.18.1. It features a large title "GeoServer 2.18.1" and a release date "Released on November 23th, 2020". On the right, there are links to the Changelog (JIRA release 16800) and an Announcement (GeoServer blog). The main content area is divided into sections: "Packages", "Documentation", "Source Code", and "Extensions". The "Packages" section contains links for "Platform Independent Binary" (circled in red) and "Web Archive" (also circled in red). The "Source Code" section contains a link for "zip | tar.gz" (circled in red). The "Documentation" section contains links for "User Guide HTML" and "Javadoc".

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A nível do pacote instalador para Windows este está disponível para a versão 2.17:

The screenshot shows the GeoServer documentation page for the Windows installer. The URL in the address bar is docs.geoserver.org/latest/en/user/installation/win_installer.html. The page title is "Windows installer". A red circle highlights the breadcrumb navigation "GeoServer 2.17.x User Manual > Installation > Windows installer". Another red circle highlights the main title "Windows installer". The page content includes a warning message: "Warning: Sadly we currently are unable to produce Windows Installers. However we've created [an instruction on this site](#) to create the installation yourself." It also lists steps for setting up Java and navigating to the download page, and provides links for Java 9 support and Java considerations. On the right side, there is a "Table Of Contents" sidebar with a section for "Windows installer" and "Uninstallation". Below the sidebar, there are links for "Continue Reading", "This Page", and "Edit".

1.1- Instalando o geoserver através dos binnaries

Se descarregar os binaries: geoserver-2.18.1-bin.zip

The screenshot shows the GeoServer 2.18.1 release page. The URL in the address bar is geoserver.org/release/stable/. The page title is "GeoServer 2.18.1". A red arrow points from the "geoserver-2.18.1-bin.zip" link in the "Extensions" section to the download link below it. The page also features sections for "Packages", "Documentation", "Source Code", and "Extensions".

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e os coloca numa diretoria, procedendo ao seu arranque através do ficheiro “startup.bat” na diretoria C:\xxxx\geoserver-2.18.1-bin\bin

```
C:\ Linha de comandos
C:\testes\geoserver-2.18.1-bin>startup.bat

C:\ Linha de comandos - startup.bat
Welcome to GeoServer!
JAVA_HOME: C:\Program Files\Java\jdk1.8.0_77

The GEOSERVER_HOME environment variable is not defined.
Temporarily setting GEOSERVER_HOME to the following directory:
C:\testes\geoserver-2.18.1-bin

The GEOSERVER_DATA_DIR environment variable is not defined correctly.
Temporarily setting GEOSERVER_DATA_DIR to the following directory:
C:\testes\geoserver-2.18.1-bin\data_dir

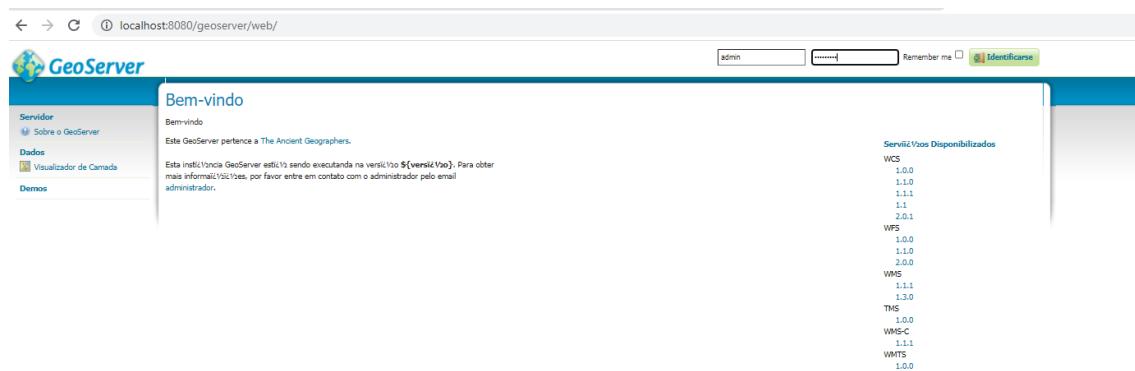
Please wait while loading GeoServer...

2020-12-29 12:41:16.391:INFO::main: Logging initialized @1372ms to org.eclipse.jetty.util.log.StdErrLog
2020-12-29 12:41:16.792:WARN:oejx.XmlConfiguration:main: Property 'jetty.port' is deprecated, use 'jetty.http.port' instead
2020-12-29 12:41:16.792:WARN:oejx.XmlConfiguration:main: Property 'http.timeout' is deprecated, use 'jetty.http.idleTimeout' instead
2020-12-29 12:41:16.808:INFO:oejs.Server:main: jetty-9.4.18.v20190429; built: 2019-04-29T20:42:08.989Z; git: e1bc35120a6617ee3df052294e433f3a25ce7097; jvm: 1.8.0_77-b03
2020-12-29 12:41:16.846:INFO:oejdp.ScanningAppProvider:main: Deployment monitor [file:///C:/testes/geoserver-2.18.1-bin/webapps/] at interval 1
```

Depois do serviço ter arrancado, poderá abrir um browser para aceder ao geoserver na porta 8080:

```
29 dez 12:42:09 INFO [geoserver.security] - Reloading user/groups successful for service named default
2020-12-29 12:42:09.746:INFO:oejsh.ContextHandler:main: Started o.e.j.w.WebAppContext@527740a2{GeoServer,/geoserver,file:///C:/testes/geoserver-2.18.1-bin/webapps/geoserver/,AVAILABLE}{C:\testes\geoserver-2.18.1-bin\webapps\geoserver}
2020-12-29 12:42:09.836:INFO:oejs.AbstractConnector:main: Started Server Connector@a479c0c[HTTP/1.1,[http/1.1]]{0.0.0.0:8080}
2020-12-29 12:42:09.836:INFO:oejs.Server:main: Started @54813ms
```

<http://localhost:8080/geoserver/web/>



Com o login, admin e a pass:geoserver consegue aceder à consola de gestão do servidor cartográfico:

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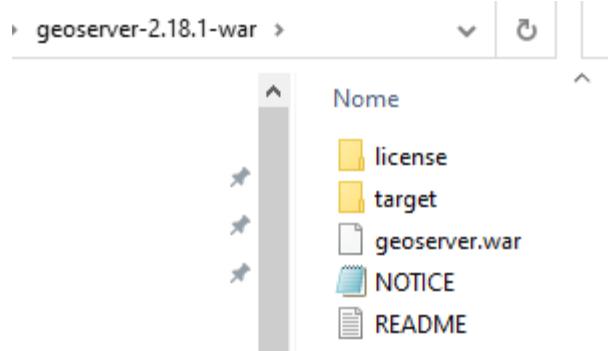
1.2- Instalando o geoserver através do ficheiro WAR e instalar no servidor Tomcat já existente (ex. no XAMPP)

Faça o download do ficheiro war:

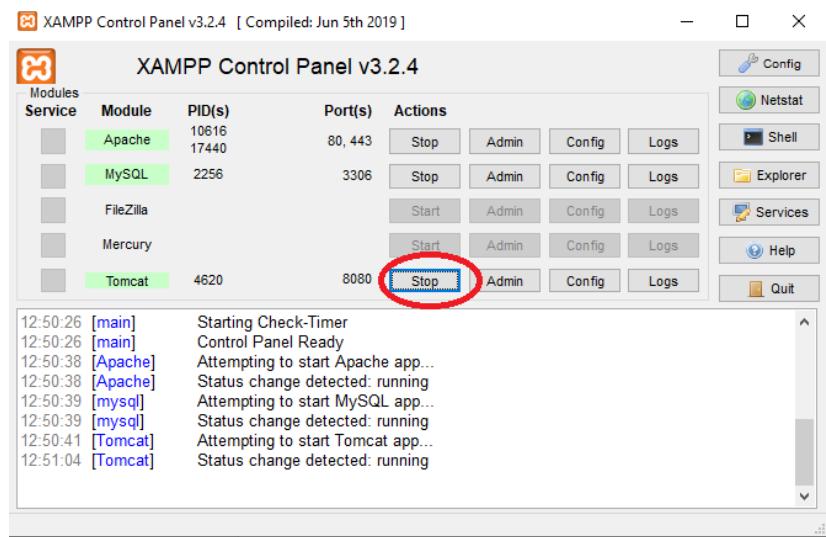
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Abra o painel de controlo do XAMPP e inicie o TOMCAT:



Abra o admin do servidor Tomcat na porta 8080:

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Entre no manager app ou no host-manager.

NOTA: Se necessário poderá retificar a password na pasta \$TOMCAT_HOME/conf/tomcat-users.xml colocando as seguintes duas linhas e descomentando outras:

```

<?xml version="1.0" encoding="UTF-8"?>
<!-- Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements. See the NOTICE file distributed with this work for additional information regarding copyright ownership. The ASF licenses this file to You under the Apache License, Version 2.0 (the "License"); you may not use this file except in compliance with the License. You may obtain a copy of the License at http://www.apache.org/licenses/LICENSE-2.0 Unless required by applicable law or agreed to in writing, software distributed under the License is distributed on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied. See the License for the specific language governing permissions and limitations under the License. -->
-<tomcat-users version="1.0" xsi:schemaLocation="http://tomcat.apache.org/xml tomcat-users.xsd"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns="http://tomcat.apache.org/xml">
  <!-- NOTE: By default, no user is included in the "manager-gui" role required to operate the "/manager/html" web application. If you wish to use this app, you must define such a user - the username and password are arbitrary. It is strongly recommended that you do NOT use one of the users in the commented out section below since they are intended for use with the examples web application. -->
  <!-- NOTE: The sample user and role entries below are intended for use with the examples web application. They are wrapped in a comment and thus are ignored when reading this file. If you wish to configure these users for use with the examples web application, do not forget to remove the <!...> that surrounds them. You will also need to set the passwords to something appropriate. -->
  <!-- <role rolename="tomcat"/> <role rolename="role1"/> <user username="tomcat" password="tomcat" roles="tomcat"/>
  <user username="both" password="tomcat" roles="tomcat,role1"/> <user username="role1" password="tomcat"
  roles="role1"/> -->
  <role rolename="tomcat"/>
  <role rolename="role1"/>
  <role rolename="admin"/>
  <role rolename="manager"/>
  <role rolename="manager-gui"/>
  <user roles="tomcat,role1,admin,manager,manager-gui,admin-gui" password="admin" username="tomcat"/>
</tomcat-users>
```

```

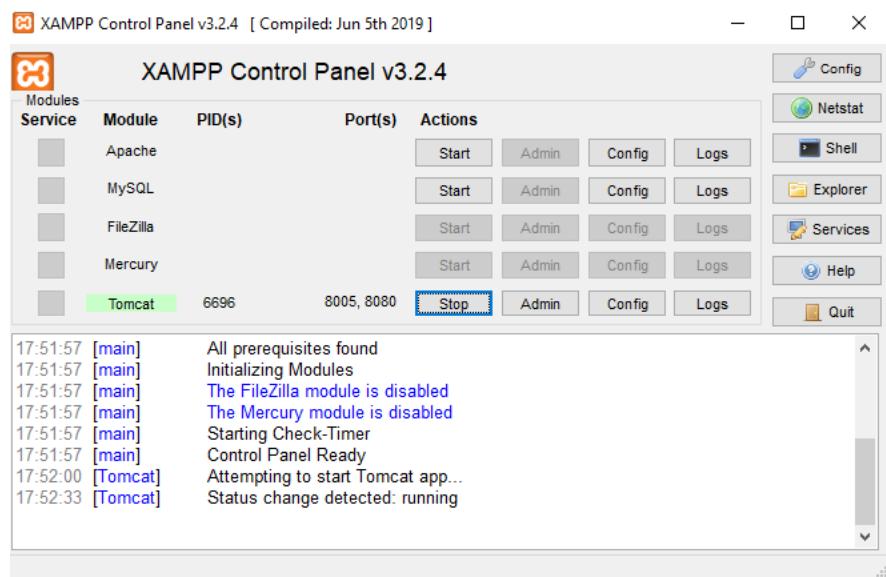
<role rolename="tomcat"/>
<role rolename="role1"/>
<role rolename="admin"/>
<role rolename="manager"/>
<role rolename="manager-gui"/>
<user username="tomcat" password="admin" roles="tomcat,role1,admin,manager,manager-gui,admin-gui"/>
```

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→Pare e arranque de novo o servidor Tomcat.



The screenshot shows the Tomcat Web Application Manager. At the top, there's a message bar with 'Message: OK'. Below it is a navigation bar with tabs for Manager, ListApplications, HTML Manager Help, Manager Help, and Server Status. The main area is titled 'Applications' and lists the following deployed applications:

Path	Version	Display Name	Running	Sessions	Commands
/	None specified	Welcome to Tomcat	true	0	Start Stop Reload Undeploy Expire sessions with idle ≥ 30 minutes
/docs	None specified	Tomcat Documentation	true	0	Start Stop Reload Undeploy Expire sessions with idle ≥ 30 minutes
/examples	None specified	Servlet and JSP Examples	true	0	Start Stop Reload Undeploy Expire sessions with idle ≥ 30 minutes
/host-manager	None specified	Tomcat Host Manager Application	true	1	Start Stop Reload Undeploy Expire sessions with idle ≥ 30 minutes
/manager	None specified	Tomcat Manager Application	true	1	Start Stop Reload Undeploy Expire sessions with idle ≥ 30 minutes

At the bottom, there's a 'Deploy' section with a note 'Deploy directory or WAR file located on server' and a 'Context Path (required)' input field.

Vamos agora instalar o ficheiro geoserver.war para que o servidor cartográfico fique “dentro” do Tomcat do XAMPP e não num local/serviço separado.

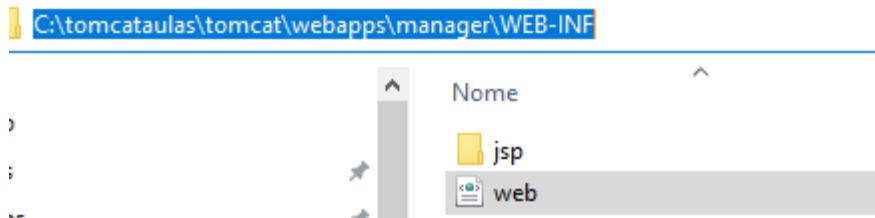
Nota: Por defeito o manager o tomcat só aceita um determinado tamanho de ficheiros para publicar um ficheiro war. Tendo em consideração o tamanho do ficheiro geoserver.war teremos de aumentar o tamanho nas configurações do ficheiro web.xml.

Aceda ao ficheiro web.xml em:

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Pesquise as palavras: <max-file-size><max-request-size>

E altere de:

```
<multipart-config>
    <!-- 50MB max -->
    <max-file-size>52428800</max-file-size>
    <max-request-size>52428800</max-request-size>
    <file-size-threshold>0</file-size-threshold>
</multipart-config>
</servlet>
```

Para:

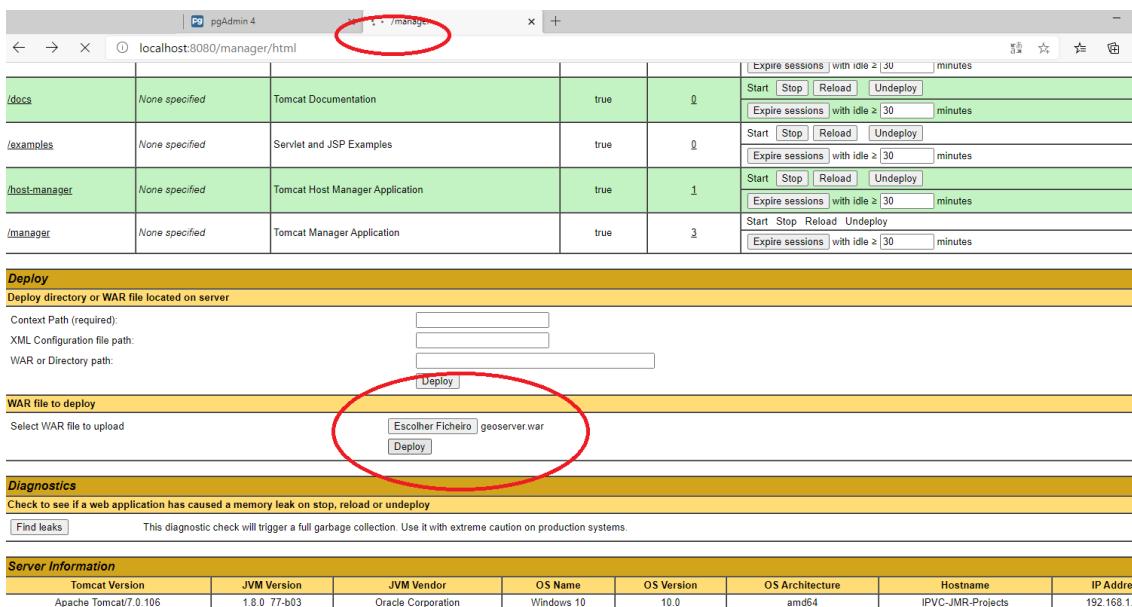
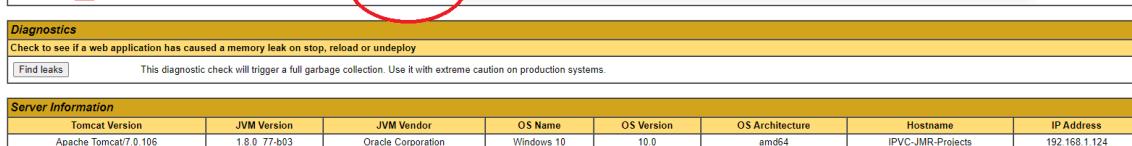
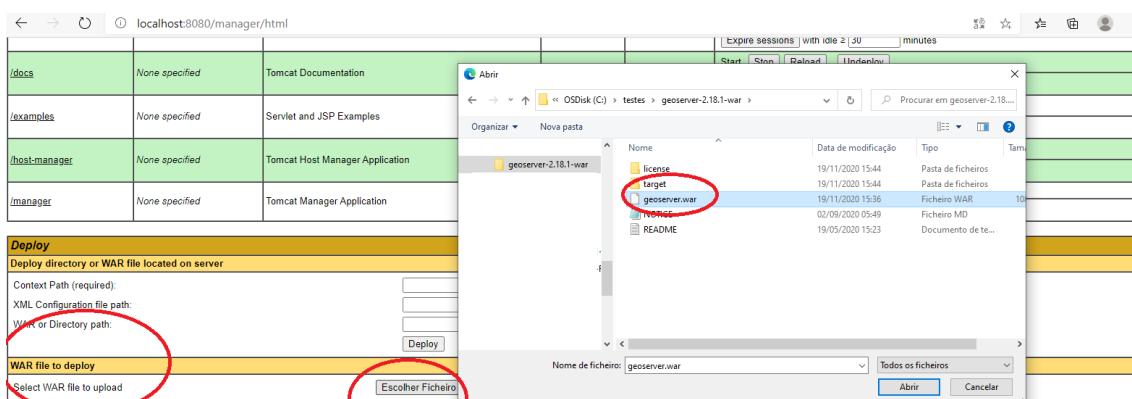
```
<multipart-config>
    <!-- 50MB max -->
    <max-file-size>102428800</max-file-size>
    <max-request-size>102428800</max-request-size>
    <file-size-threshold>0</file-size-threshold>
</multipart-config>
</servlet>
<servlet>
    . . . . .
```

O erro pode ser consultado nos logs do ficheiro *manager-ano-mês-dia.log*:

```
manager.2020-12-29 - Bloco de notas
Ficheiro Editar Formatar Ver Ajuda

1 org.apache.catalina.core.ApplicationContext log
:: Listing contexts for virtual host 'localhost'
1 org.apache.catalina.core.ApplicationContext log
:: Listing contexts for virtual host 'localhost'
1 org.apache.catalina.core.ApplicationContext log
[1L - Deploy Upload Failed. Exception [org.apache.tomcat.util.http.fileupload.impl.SizeLimitExceededException: the request was rejected because its size (110985257) exceeds the configured maximum (52428800)] occurred at [exception.org.apache.tomcat.util.http.fileupload.impl.SizeLimitExceededException: the request was rejected because its size (110985257) exceeds the configured maximum (52428800)]
at alina.connector.Request.parseParts(Request.java:308)
at alina.connector.Request.parseParameters(Request.java:336)
at alina.connector.Request.getParameter(Request.java:181)
at alina.connector.RequestFacade.getParameter(RequestFacade.java:382)
at alina.filters.CsrfPreventionFilter.doFilter(CsrfPreventionFilter.java:108)
at alina.core.ApplicationFilterChain.internalDoFilter(ApplicationFilterChain.java:241)
at comcat.websocket.WsFilter.doFilter(WsFilter.java:52)
at alina.core.ApplicationFilterChain.internalDoFilter(ApplicationFilterChain.java:204)
at alina.core.ApplicationFilterChain.doFilter(ApplicationFilterChain.java:109)
at alina.filters.SetCharacterEncodingFilter.doFilter(SetCharacterEncodingFilter.java:109)
at alina.core.ApplicationFilterChain.internalDoFilter(ApplicationFilterChain.java:241)
at alina.core.ApplicationFilterChain.doFilter(ApplicationFilterChain.java:208)
at alina.core.StandardWrapperValve.invoke(StandardWrapperValve.java:219)
at alina.core.StandardContextValve.invoke(StandardContextValve.java:110)
at alina.authenticator.AuthenticationBase.invoke(AuthenticationBase.java:604)
at alina.core.StandardHostValve.invoke(StandardHostValve.java:165)
at alina.valves.ErrorReportValve.invoke(ErrorReportValve.java:104)
at alina.valves.AccessLogValve.invoke(AccessLogValve.java:1025)
`
```

➔ Reinicie o Tomcat.



Se reparar no processo de instalação, está a ser instalada toda a configuração por defeito do geoserver (ex. layers, etc):

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```
ok c:\tomcataulas\catalina_start.bat
29 dez 18:29:47 INFO [org.geoserver] - Loaded coverage store 'arcGridSample', enabled
29 dez 18:29:53 INFO [org.geoserver] - Loaded coverage 'Arc_Sample', enabled
29 dez 18:29:53 INFO [org.geoserver] - Loaded layer 'Arc_Sample'
29 dez 18:29:53 INFO [org.geoserver] - Loaded coverage store 'mosaic', enabled
29 dez 18:29:53 INFO [org.geoserver] - Loaded coverage 'mosaic', enabled
29 dez 18:29:53 INFO [org.geoserver] - Loaded layer 'mosaic'
29 dez 18:29:53 INFO [org.geoserver] - Loaded coverage store 'worldImageSample', enabled
29 dez 18:29:53 INFO [org.geoserver] - Loaded coverage 'Img_Sample', enabled
29 dez 18:29:53 INFO [org.geoserver] - Loaded layer 'Img_Sample'
29 dez 18:29:53 INFO [org.geoserver] - Loaded coverage store 'img_sample2', enabled
29 dez 18:29:53 INFO [org.geoserver] - Loaded coverage 'Pk50095', enabled
29 dez 18:29:53 INFO [org.geoserver] - Loaded layer 'Pk50095'
29 dez 18:29:54 INFO [org.geoserver] - Loaded data store 'sf', enabled
29 dez 18:29:54 INFO [org.geoserver] - Loaded feature type 'restricted', enabled
29 dez 18:29:54 INFO [org.geoserver] - Loaded layer 'restricted'
29 dez 18:29:54 INFO [org.geoserver] - Loaded feature type 'archsites', enabled
29 dez 18:29:54 INFO [org.geoserver] - Loaded layer 'archsites'
29 dez 18:29:54 INFO [org.geoserver] - Loaded feature type 'roads', enabled
29 dez 18:29:54 INFO [org.geoserver] - Loaded layer 'roads'
29 dez 18:29:54 INFO [org.geoserver] - Loaded feature type 'streams', enabled
29 dez 18:29:54 INFO [org.geoserver] - Loaded layer 'streams'
29 dez 18:29:54 INFO [org.geoserver] - Loaded feature type 'bugsites', enabled
29 dez 18:29:54 INFO [org.geoserver] - Loaded layer 'bugsites'
29 dez 18:29:54 INFO [org.geoserver] - Loaded coverage store 'sfdem', enabled
29 dez 18:29:54 INFO [org.geoserver] - Loaded coverage 'sfdem', enabled
29 dez 18:29:54 INFO [org.geoserver] - Loaded layer 'sfdem'
29 dez 18:29:54 INFO [org.geoserver] - Loaded data store 'nyc', enabled
29 dez 18:29:54 INFO [org.geoserver] - Loaded feature type 'poly_landmarks', enabled
29 dez 18:29:54 INFO [org.geoserver] - Loaded layer 'poly_landmarks'
29 dez 18:29:54 INFO [org.geoserver] - Loaded feature type 'poi', enabled
29 dez 18:29:54 INFO [org.geoserver] - Loaded layer 'poi'
29 dez 18:29:54 INFO [org.geoserver] - Loaded feature type 'giant_polygon', enabled
29 dez 18:29:54 INFO [org.geoserver] - Loaded layer 'giant_polygon'
29 dez 18:29:54 INFO [org.geoserver] - Loaded feature type 'tiger_roads', enabled
29 dez 18:29:54 INFO [org.geoserver] - Loaded layer 'tiger_roads'
29 dez 18:29:54 INFO [org.geoserver] - Loaded data store 'taz_shapes', enabled
29 dez 18:29:55 INFO [org.geoserver] - Loaded feature type 'tasmania_roads', enabled
29 dez 18:29:55 INFO [org.geoserver] - Loaded layer 'tasmania_roads'
29 dez 18:29:55 INFO [org.geoserver] - Loaded feature type 'tasmania_state_boundaries', enabled
29 dez 18:29:55 INFO [org.geoserver] - Loaded layer 'tasmania_state_boundaries'
```

E neste momento está publicado o servidor Geoserver:

The screenshot shows the Tomcat Web Application Manager interface. At the top, there's a navigation bar with icons for back, forward, and search, followed by the URL 'localhost:8080/manager/html/upload?org.apache.catalina.filters.CSRF_NONCE=BBBB5485138C86BC0E4B428ED45AD457'. To the right is the Apache Software Foundation logo. Below the header, there's a message box with 'Message: OK'. The main area is titled 'Tomcat Web Application Manager' and contains a 'Manager' menu bar with 'List Applications', 'HTML Manager Help', 'Manager Help', and 'Server Status'. The 'Applications' section lists several applications: '/', '/docs', '/examples', '/geoserver', '/host-manager', and '/manager'. The '/geoserver' application is circled in red. Its row in the table has a red circle around the 'Stop' button in the 'Commands' column. Other applications have green rows.

Applications					
Path	Version	Display Name	Running	Sessions	Commands
/	None specified	Welcome to Tomcat	true	0	Start Stop Reload Undeploy Expire sessions with idle ≥ [30] minutes
/docs	None specified	Tomcat Documentation	true	0	Start Stop Reload Undeploy Expire sessions with idle ≥ [30] minutes
/examples	None specified	Servlet and JSP Examples	true	0	Start Stop Reload Undeploy Expire sessions with idle ≥ [30] minutes
/geoserver	None specified	GeoServer	true	0	Start Stop Reload Undeploy Expire sessions with idle ≥ [30] minutes
/host-manager	None specified	Tomcat Host Manager Application	true	1	Start Stop Reload Undeploy Expire sessions with idle ≥ [30] minutes
/manager	None specified	Tomcat Manager Application	true	3	Start Stop Reload Undeploy Expire sessions with idle ≥ [30] minutes

Deploy
Deploy directory or WAR file located on server

Aceda ao link do servidor geoserver:

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The screenshot shows the Geoserver 'Welcome' page. On the left is a sidebar with links for About & Status, Data, and Demos. The main content area shows a summary of the server's status: 19 Layers, 9 Stores, and 7 Workspaces. A 'Service Capabilities' section lists various protocols and their versions. The URL in the browser is `localhost:8080/geoserver/web/`.

Service	Version
Wcs	1.0.0 1.1.0 1.1.1 1.1 2.0.1
WFS	1.0.0 1.1.0 2.0.0
WMS	1.1.1 1.3.0
Tms	1.0.0
WMS-C	1.1.1
WMPS	1.0.0

Aceda ao painel de controlo com as credenciais admin e geoserver como password:

This screenshot shows the Geoserver 'Welcome' page after logging in as 'admin'. The sidebar is fully expanded, showing sections for About & Status, Data, Services, Settings, Tile Caching, and Security. The main content area includes a warning about the master password and information about the server version. The URL in the browser is `localhost:8080/geoserver/web/?1`.

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1.3- Instalando o geoserver através dos pacote executável do windows

Nota: neste exemplo de instalação a demonstração utiliza a versão 2.14 do geoserver. Para mais informações consulte o seguinte link:
https://docs.geoserver.org/latest/en/user/installation/win_installer.html#

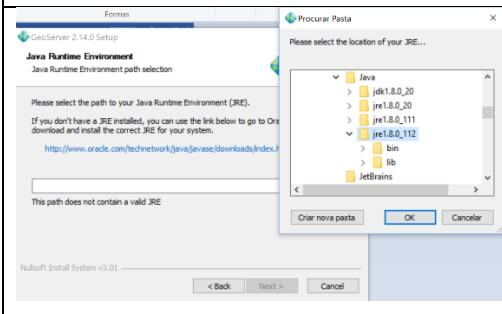
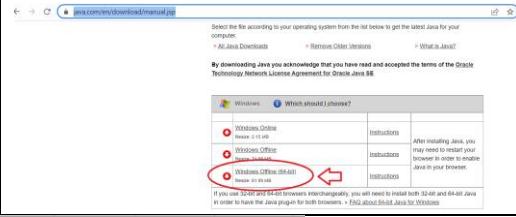
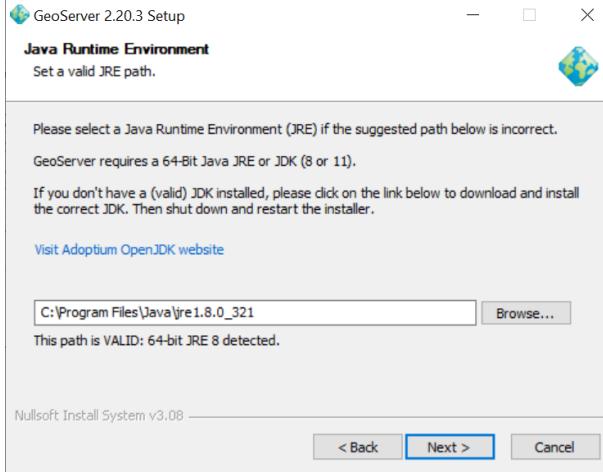
Depois de fazer o download do pacote instalador do Geoserver via Windows, siga os seguintes passos:



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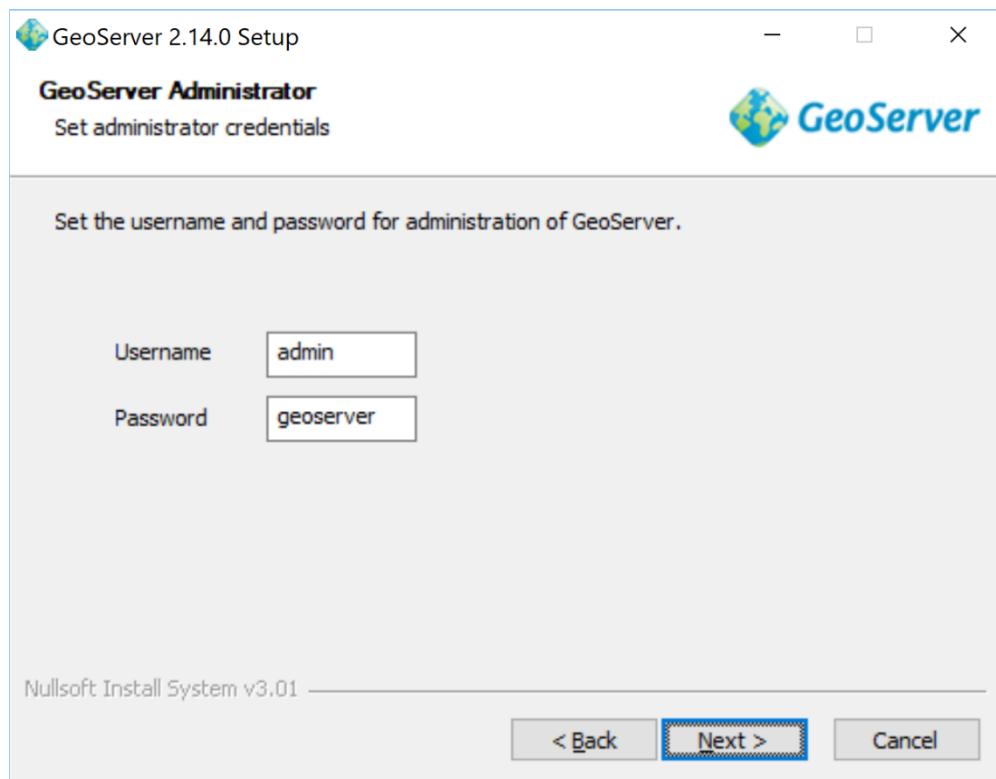
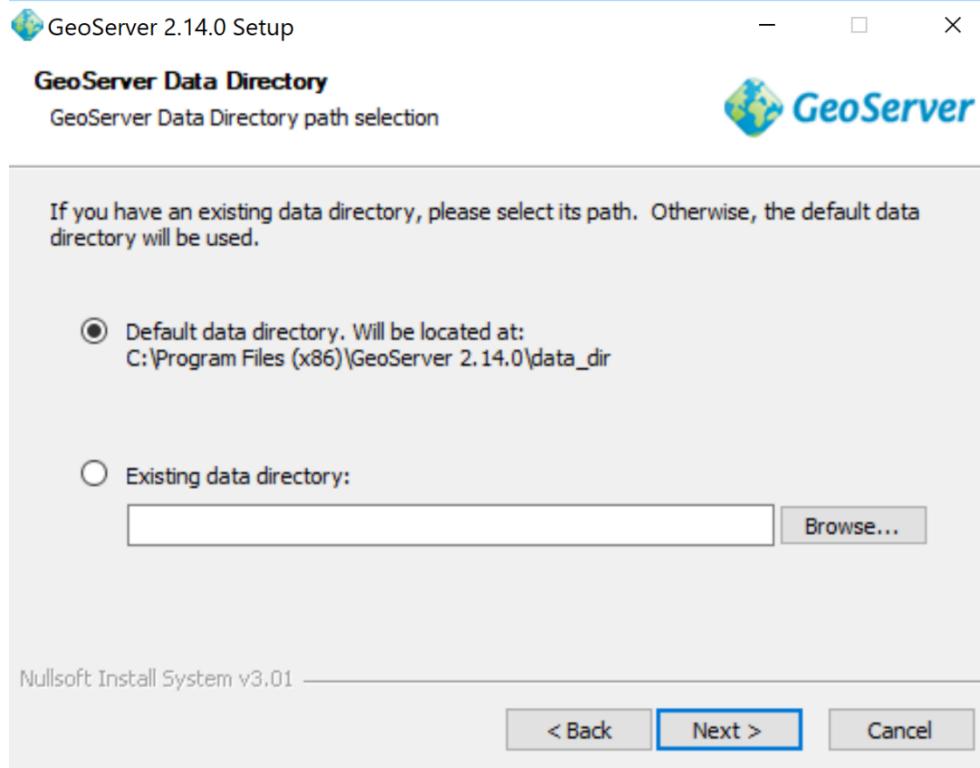
(versão 1)

Instalação Versão Geoserver com o JAVA instalado	Instalação do JAVA caso não esteja instalado
	<p>Instalar última Versão do Java</p> <p>https://www.java.com/en/download/manual.jsp</p> 
	

Tutorial

Instalação do Servidor Cartográfico Geoserver

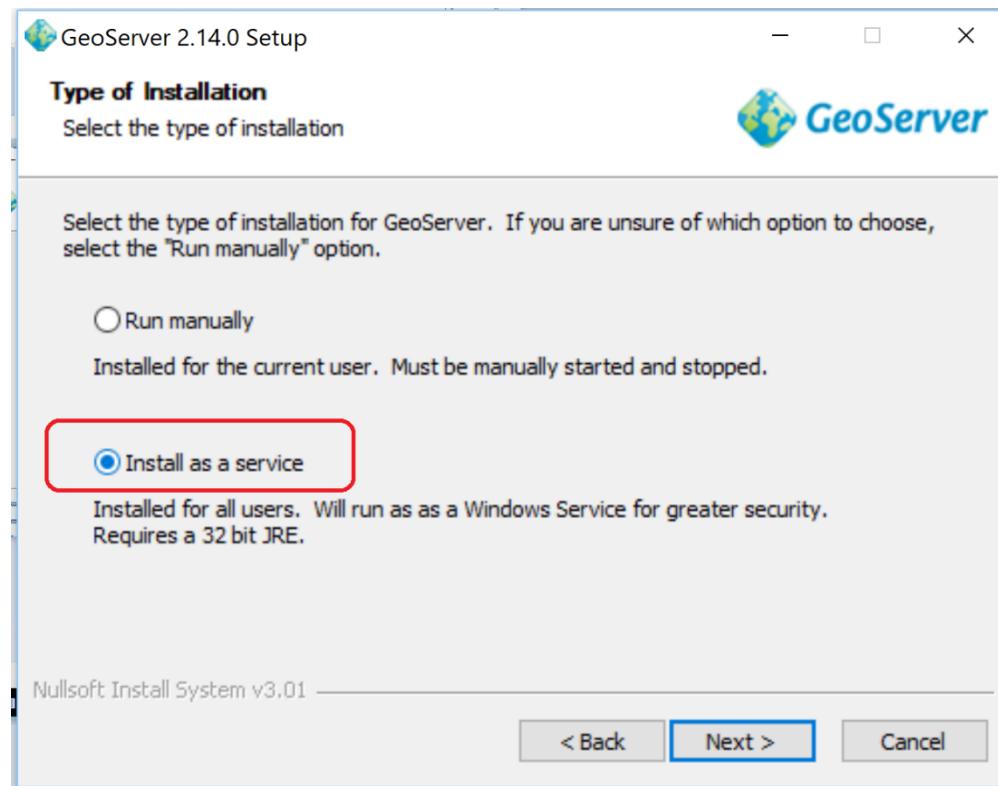
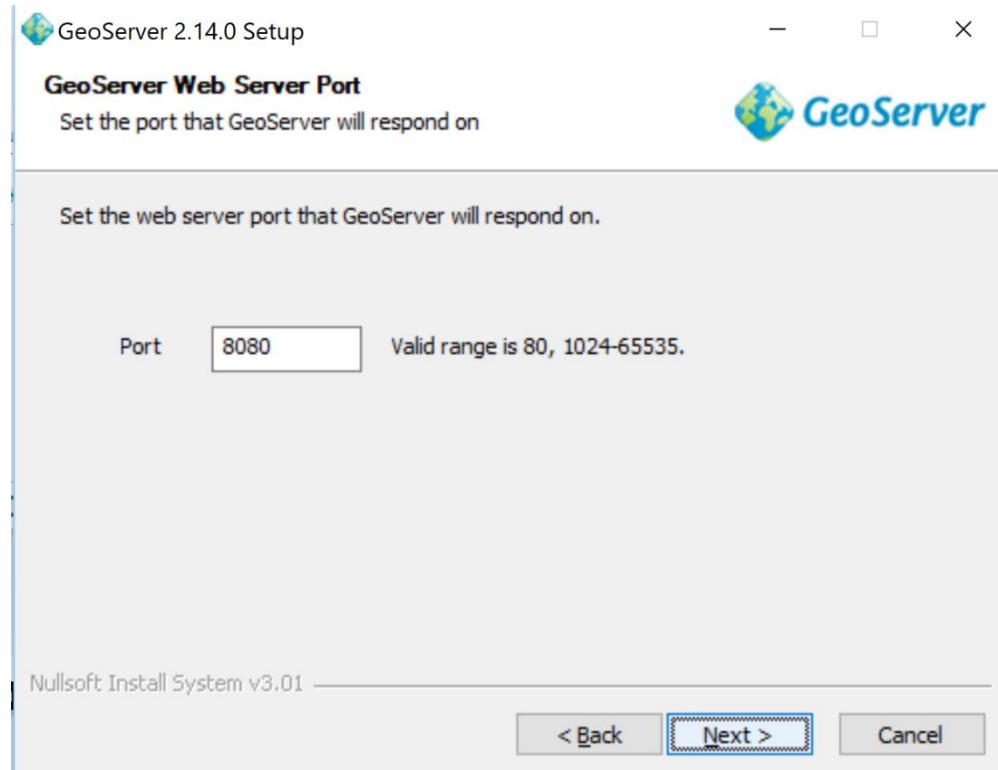
(versão 1)



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Instalação do Servidor Cartográfico Geoserver

(versão 1)

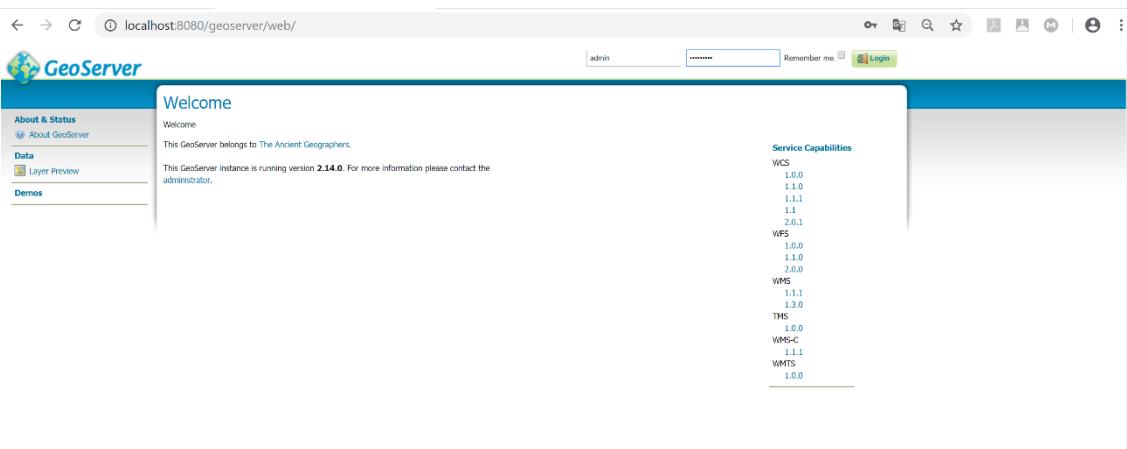
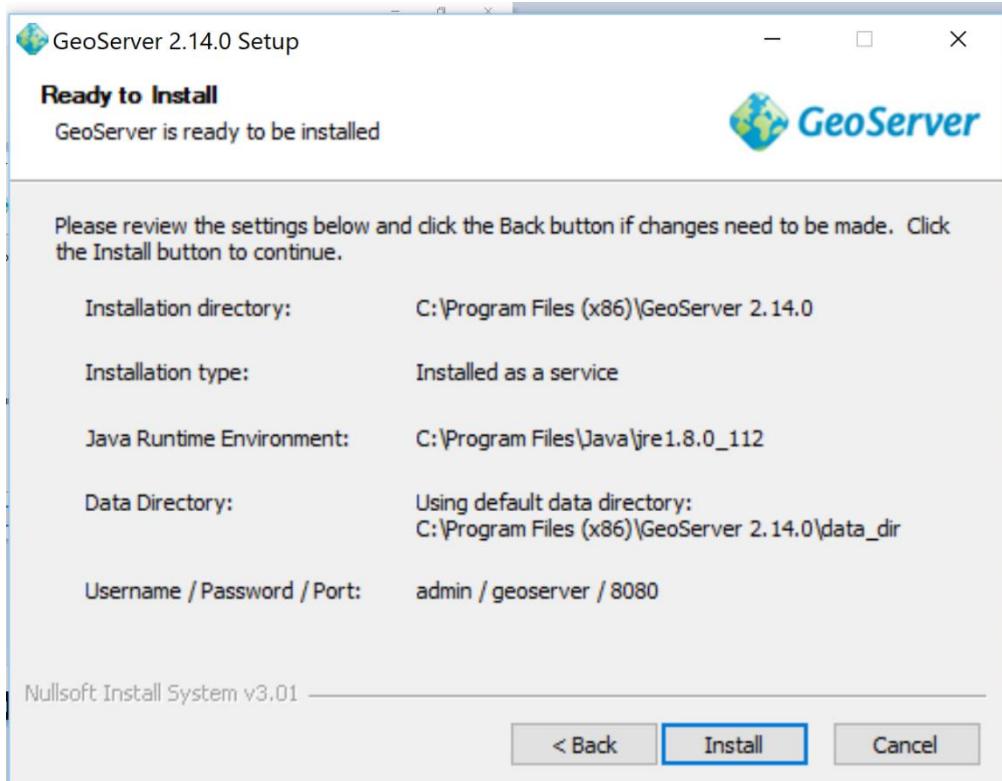


NOTA: Neste caso o arranque do GeoServer estará disponível no painel controlo – Serviços e não de forma manual via linha de comandos, tal como se o instalasse via binaries.

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Instalação do Servidor Cartográfico Geoserver

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2- Configuração dos Serviços no Geoserver com ligação à base de dados PosgreSQL

O objetivo deste passo é criar serviços no Geoserver para linkar as layers às tabelas das base de dados, para que os visualizadores de informação geográfica acedam à informação de leitura via serviços WFS/WMS e não diretamente à base de dados.

Estando neste momento instalado o Geoserver na porta 8080, considere que foram importadas as shapefiles para a base de dados PostgreSQL e que estão criadas as tabelas:

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1º vamos criar um workspace “Aulas_SIG” para colocar todas as configurações de layers, estilos, etc sobre este domínio:

Ative os serviços WFS, WMS e WCS:

localhost:8080/geoserver/web/wicket/bookmarkable/org.geoserver.web.data.workspace.WorkspaceEditPage?14&name=Aulas_SIG

Logged in as admin. Logout

eoServer

Edit Workspace

Edit existing workspace

Basic Info **Security**

Name: Aulas_SIG
Namespace URI: www.aulas_sig.pt
The namespace uri associated with this workspace
 Default Workspace
 Isolated Workspace

Settings

Enabled:

Services

- WMTS
- Wcs
- WFS
- WMS

Save Apply Cancel

Aceda ao servidor geoserver e crie um “store” para a ligação à base de dados PostgreSQL

localhost:8080/geoserver/web/wicket/bookmarkable/org.geoserver.web.store.StorePage?4&filter=false

Logged in as admin. Logout

GeoServer

Stores

About & Status
Data
Services
Settings
Tile Caching

Add new Store

Data Type	Workspace	Store Name	Type
Grid	nurc	arcGridSample	ArcGrid
Grid	nurc	img_sample2	WorldImage
Grid	nurc	mosaic	ImageMosaic
vector	tiger	nyc	Shapefile
vector	sf	sf	Shapefile
Grid	sf	sfdem	GeoTIFF
vector	Top	states_shapefile	Shapefile
vector	Top	taz_shapes	Shapefile
Grid	nurc	worldImageSample	WorldImage

Selecione a ligação via PostGIS:

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New data source

Choose the type of data source you wish to configure

Vector Data Sources

- Directory of spatial files (shapefiles) - Takes a directory of shapefiles and exposes
- GeoPackage - GeoPackage
- PostGIS - PostGIS Database
- PostGIS (JNDI) - PostGIS Database (JNDI)
- Properties - Allows access to Java Property files containing Feature information
- Shapefile - ESRI(tm) Shapefiles (*.shp)
- Web Feature Server (NG) - Provides access to the Features published a Web Feat

Raster Data Sources

- ArcGrid - ARC/INFO ASCII GRID Coverage Format
- GeoPackage (mosaic) - GeoPackage mosaic plugin
- GeoTIFF - Tagged Image File Format with Geographic information
- ImageMosaic - Image mosaic plugin

Configure a ligação com base na base de dados em PostgreSQL:

The screenshot shows two windows side-by-side. On the left is the Geoserver 'New Vector Data Source' configuration page. It has a sidebar with 'About & Status', 'Data', 'Services', 'Settings', 'Tile Caching', 'Security', and 'Auth'. The main form has a 'Basic Store Info' section with a dropdown 'Workspace' set to 'Aulas_SIG' (circled in red), a 'Data Source Name' input 'bd_aula_sig' (circled in red), and a 'Description' input 'Ligação do geoserver a uma base de dados PostgreSQL'. Below that is a 'Connection Parameters' section with 'host' set to 'localhost' (circled in red), 'port' set to '5432', 'database' set to 'Aulas_SIG' (circled in red), 'schema' set to 'public', 'user' set to 'postgres' (circled in red), and 'password' (redacted). At the bottom are 'Save', 'Apply', and 'Cancel' buttons. On the right is the pgAdmin interface showing the PostgreSQL database structure. A red box highlights the 'databases' node, which contains 'Aulas_SIG' (circled in red). Inside 'Aulas_SIG', there are 'Casts', 'Checkpoints', 'Event Triggers', 'Extensions', 'Foreign Data Wrappers', 'Languages', and 'schemas'. The 'schemas' node contains 'public' (circled in red), which in turn contains 'Tables' (9), 'Domains', 'FTS Configurations', 'FTS Dictionaries', 'FTS Parsers', 'FTS Templates', 'Functions', 'Materialized Views', 'Procedures', and 'Sequences'. One table, 'arrida_2018', is highlighted in blue.

Proceda no fim com o botão “Save”:

Irão aparecer as layers associadas às tabelas da base de dados:

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Instalação do Servidor Cartográfico Geoserver

(versão 1)

New Layer

Add a new layer

You can create a new feature type by manually configuring the attribute names and types. [Create new feature type...](#)

On databases you can also create a new feature type by configuring a native SQL statement. [Configure new SQL view...](#)

Here is a list of resources contained in the store 'bd_aula_sig'. Click on the layer you wish to configure

Results 1 to 8 (out of 8 items)		
	Layer name	Action
	ardida_2018	Publish
	cont_aad_caop2015	Publish
	farmacias_viana	Publish
	geometries	Publish
	ifn_2015	Publish
	pontos_agua	Publish
	rede_viaria	Publish
	zonas_caca	Publish

Para cada uma, selecione o botão/link Publish e proceda à configuração da Layer:

The screenshot shows the GeoServer interface with the following details:

- Header:** Shows the URL `localhost:8080/geoserver/web/wicket/page?17` and the user is logged in as 'admin'.
- Left Sidebar:**
 - About & Status:** Server Status, GeoServer Logs, Contact Information, About GeoServer.
 - Data:** Layer Preview, Workspaces, Stores, Layers, Layer Groups, Styles.
 - Services:** WMTS, Wcs, WFS, WMS.
 - Settings:** Global, Image Processing, Raster Access.
 - Tile Caching:** Tile Layers, Caching Defaults, Gridsets, Disk Quota, BlobStores.
 - Security:** Settings, Authentication, Passwords.
- Main Content:**
 - Edit Layer:** Title: Aulas_SIG:ardida_2018.
 - Basic Resource Info:**
 - Name: ardida_2018
 - Enabled: checked
 - Advertised: checked
 - Title: ardida_2018
 - Abstract: (empty text area)
 - Keywords:**
 - Current Keywords: features, ardida_2018
 - New Keyword: (text input field)
 - Vocabulary: (text input field)

Teremos de colocar o sistema de referência 3763 – WGS84 –

Tutorial

Instalação do Servidor Cartográfico Geoserver

(versão 1)

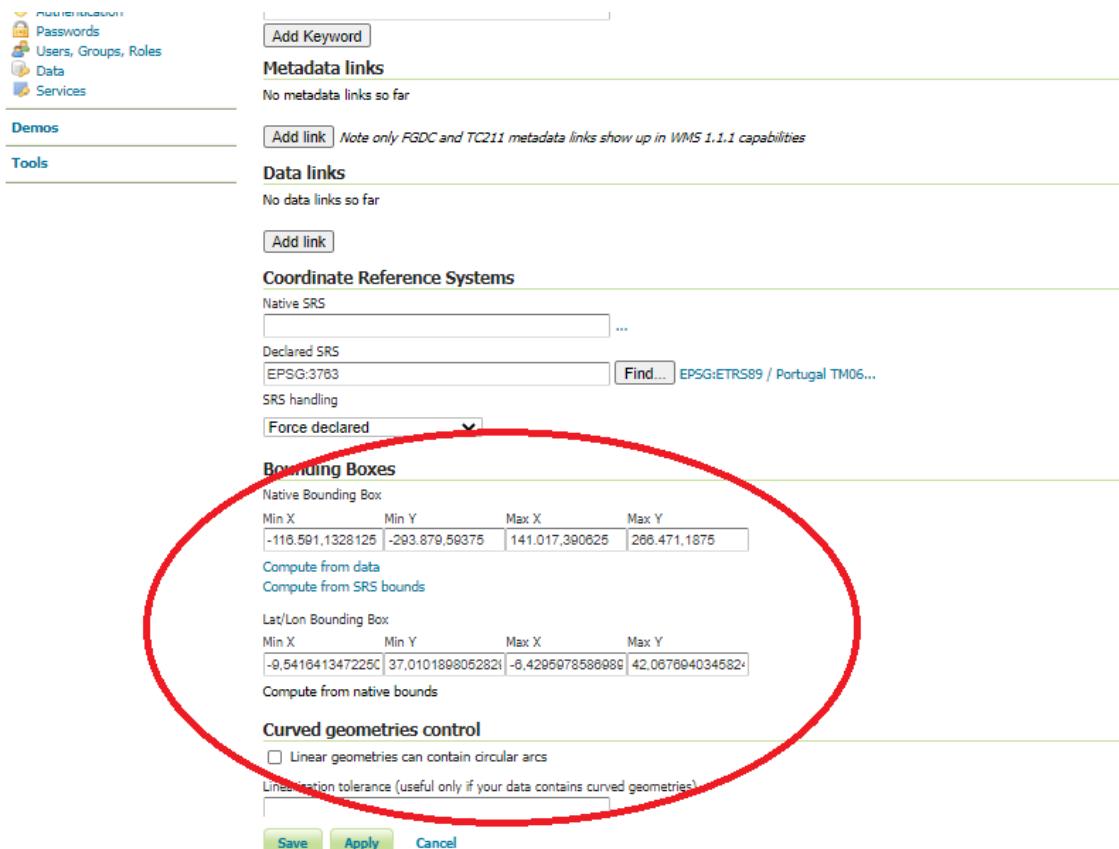
The screenshot shows a portion of the Wikipedia article on the EPSG Geodetic Parameter Dataset. It includes sections for 'Common EPSG codes' (listing EPSG:4326, EPSG:3857, and EPSG:7789), 'History' (mentioning its creation by the European Petroleum Survey Group in 1985 and its merger with IOGP in 2005), and 'Metadata links' (which are currently empty). A red oval highlights the 'Coordinate Reference Systems' section, which contains fields for 'Native SRS' (set to 'EPSG:404000'), 'Declared SRS' (also set to 'EPSG:404000'), and 'SRS handling' (set to 'Force declared'). Below this is the 'Bounding Boxes' section, which displays a table with coordinates for a native bounding box. A modal dialog box is open over the 'Native SRS' field, titled 'Select a coordinate system. Use the search box to narrow the list'. It shows a table with one result: '3763 ETRS89 / Portugal TM05'. The search bar at the top of the dialog box contains the code 'b763'.

Selecione o link “compute from data” para se atualizar a janela “Bounding boxes” de onde estão os dados no mapa:

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Instalação do Servidor Cartográfico Geoserver

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The screenshot shows the Geoserver publishing interface. On the left, there's a sidebar with links: Passwords, Users, Groups, Roles, Data, Services, Demos, and Tools. The main area has sections for Add Keyword, Metadata links (with a note about FGDC and TC211), Data links (with a note about WMS 1.1.1 capabilities), Coordinate Reference Systems (with Native SRS and Declared SRS fields), Bounding Boxes (with Native Bounding Box and Lat/Lon Bounding Box tables), Curved geometries control (with a checkbox for linear geometries containing circular arcs), and a bottom row with Save, Apply, and Cancel buttons.

Native Bounding Box	Min X	Min Y	Max X	Max Y
	-116.501,1328125	-293.879,59375	141.017,390625	286.471,1875

Lat/Lon Bounding Box	Min X	Min Y	Max X	Max Y
	-9.5416413472250	37.0101898052821	-6.4295978586989	42.0876940345824

Faça o mesmo com o link “compute from native bounds”.

No separador “Publishing” configurar os serviços WFS, WMS e o estilo “Icon/imagem” que estará associada à layer, nomeadamente calcular o Bounding Box no sistema de coordenadas de origem e também o Bounding Box em Latitudes/Longitudes. Na parte o publishing atribuir a simbologia, ou seja, o style criado.

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(versão 1)

The screenshot shows the 'Edit Layer' page for the 'Aulas_SIG:ardida_2018' layer. The left sidebar contains sections for About & Status, Data (Layer Preview, Stores, Layers, Layer Groups, Styles), Services (WMTS, Wcs, WFS, WMS), Settings (Global, Image Processing, Raster Access), Tile Caching (Tile Layers, Caching Defaults, Gridsets, Disk Quota, BlobStores), Security (Settings, Authentication, Passwords, Users, Groups, Roles, Data, Services), Demos, and Tools.

The main content area has tabs for Data, Publishing (circled in red), Dimensions, Tile Caching, and Security. Under Publishing, there are sections for HTTP Settings (Caching Settings) and Root Layer in Capabilities (radio buttons for WMS Global Settings, Yes, or No). Under Services Settings, there is a checkbox for Selectively enable services for layer.

The WFS Settings section (also circled in red) includes Per-Request Feature Limit (set to 0), Maximum number of decimals (set to 0), Right-pad decimals with zeros (unchecked), Forced decimal notation, don't use scientific notation (unchecked), Activate complex to simple features conversion (unchecked), and NumberMatched skip (checkboxes for Stop counting of the numberMatched attribute and Override WFS side SRS list).

The Layer Settings section (with a red arrow pointing to the 'Styles' dropdown) includes checkboxes for Opaque and Default Style (set to restricted). Below this is an 'Available Styles' list containing: burg, capitals, cities, lakes, dem, generic, green_polygon, grass, green, line, pol, and a Default Rendering Buffer section.

NOTA: Se pretender, poderá no separador “Styles” criar um estilo (icon, cor) para esta layer.
Neste caso vamos colocar um polígono a vermelho.

Proceda à atualização do tipo de feature:

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(versão 1)

localhost:8080/geoserver/web/wicket/bookmarkable/org.geoserver.web.data.resource.ResourceController

Compute from SRS bounds

Lat/Lon Bounding Box

Min X	Min Y	Max X	Max Y
-9,5416413472250	37,0101898052821	-6,4205978586988	42,0876940345821

Compute from native bounds

Curved geometries control

Linear geometries can contain circular arcs

Linearization tolerance (useful only if your data contains curved geometries)

Feature Type Details

Property	Type	Nillable	Min/Max
cod_sgif	String	true	0/1
cod_ncco	BigDecimal	true	0/1
Type	String	true	0/1
District	String	true	0/1
County	String	true	0/1
Parish	String	true	0/1
local	String	true	0/1
data_inici	String	true	0/1
data_fim	String	true	0/1
Year	Integer	true	0/1
area_ha	BigDecimal	true	0/1
Geom	MultiPolygon	true	0/1

[Reload feature type](#)

Restrict the features on layer by CQL filter

Prossiga com o botão “Save” e está criada a layer “área ardida”:

localhost:8080/geoserver/web/wicket/bookmarkable/org.geoserver.web.data.layer.LayerPage?22

GeoServer Logged in as admin. Logout

Layers

About & Status
Data Services Settings Security Demos

Add a new layer Remove selected layers

Type	Title	Name	Store	Enabled	Native SRS
World rectangle	tiger:giant_polygon	nyc	✓	EPSG:4326	
Manhattan (NY) points of interest	tiger:then	nyc	✓	EPSG:4326	
Manhattan (NY) landmarks	tiger:poly_landmarks	nyc	✓	EPSG:4326	
Manhattan (NY) roads	tiger:tiger_roads	nyc	✓	EPSG:4326	
A sample ArcGrid file	nurc:arc_Sample	arcGridSample	✓	EPSG:4326	
North America sample imagery	nurc:Img_Sample	worldImageSample	✓	EPSG:4326	
Pk50095	nurc:Pk50095	img_sample2	✓	EPSG:32633	
mosaic	nurc:mosaic	mosaic	✓	EPSG:4326	
USA Population	topp:states	states_shapefile	✓	EPSG:4326	
Tasmania cities	top:tasmania_cities	taz_shapes	✓	EPSG:4326	
Tasmania roads	top:tasmania_roads	taz_shapes	✓	EPSG:4326	
Tasmania state boundaries	top:tasmania_state_boundaries	taz_shapes	✓	EPSG:4326	
Tasmania water bodies	top:tasmania_water_bodies	taz_shapes	✓	EPSG:4326	
Spearfish archaeological sites	sf:archsites	sf	✓	EPSG:26713	
Spearfish bug locations	sf:bugsites	sf	✓	EPSG:26713	
Spearfish restricted areas	sf:restricted	sf	✓	EPSG:26713	
Spearfish roads	sf:roads	sf	✓	EPSG:26713	
Spearfish elevation	sf:sfDEM	sfDEM	✓	EPSG:26713	
Spearfish streams	sf:streams	sfStreams	✓	EPSG:26713	
ardida_2018	Aulas_SIG:ardida_2018	bd_aula_sig	✓	EPSG:404000	

Selezione o ícone “Layer Preview”: e selecione a opção “OpenLayers”:

localhost:8080/geoserver/web/wicket/bookmarkable/org.geoserver.web.demo.MapPreviewPage?24&filter=false

GeoServer Logged in as admin. Logout

Layer Preview

About & Status Data Services Settings Security Demos Tools

Layer Preview

Use or an icon is configured to Geoserver and provides previews in various formats for each.

Type	Title	Name	Common Formats	All Formats
World rectangle	tiger:giant_polygon	OpenLayers, GML, KML	Select one ▾	
Manhattan (NY) points of interest	tiger:then	OpenLayers, GML, KML	Select one ▾	
Manhattan (NY) landmarks	tiger:poly_landmarks	OpenLayers, GML, KML	Select one ▾	
Manhattan (NY) roads	tiger:tiger_roads	OpenLayers, GML, KML	Select one ▾	
A sample ArcGrid file	nurc:arc_Sample	OpenLayers, KML	Select one ▾	
North America sample imagery	nurc:Img_Sample	OpenLayers, KML	Select one ▾	
Pk50095	nurc:Pk50095	OpenLayers, KML	Select one ▾	
mosaic	nurc:mosaic	OpenLayers, KML	Select one ▾	
USA Population	topp:states	OpenLayers, GML, KML	Select one ▾	
Tasmania cities	top:tasmania_cities	OpenLayers, GML, KML	Select one ▾	
Tasmania roads	top:tasmania_roads	OpenLayers, GML, KML	Select one ▾	
Tasmania state boundaries	top:tasmania_state_boundaries	OpenLayers, GML, KML	Select one ▾	
Tasmania water bodies	top:tasmania_water_bodies	OpenLayers, GML, KML	Select one ▾	
Spearfish archaeological sites	sf:archsites	OpenLayers, GML, KML	Select one ▾	
Spearfish bug locations	sf:bugsites	OpenLayers, GML, KML	Select one ▾	
Spearfish restricted areas	sf:restricted	OpenLayers, GML, KML	Select one ▾	
Spearfish roads	sf:roads	OpenLayers, GML, KML	Select one ▾	
Spearfish elevation	sf:sfDEM	OpenLayers, KML	Select one ▾	
Spearfish streams	sf:streams	OpenLayers, GML, KML	Select one ▾	
ardida_2018	Aulas_SIG:ardida_2018	OpenLayers, GML, KML	Select one ▾	

Tutorial

Instalação do Servidor Cartográfico Geoserver

(versão 1)

Na base de dados a informação é a seguinte:

The screenshot shows the pgAdmin 4 interface. On the left, the 'Browser' pane displays the 'public' schema with its contents: Foreign Data Wrappers, Languages, Schemas (1), public (Collations, Domains, FTS Configurations, FTS Dictionaries, FTS Parsers, FTS Templates, Foreign Tables, Functions, Materialized Views, Procedures, Sequences, Tables (9)), Test, and db_postosabastecimento. One table, 'ardida_2018', is highlighted. On the right, the 'Query Editor' tab shows a simple SQL query:

```
1 SELECT * FROM public.ardida_2018
2 ORDER BY gid ASC
```

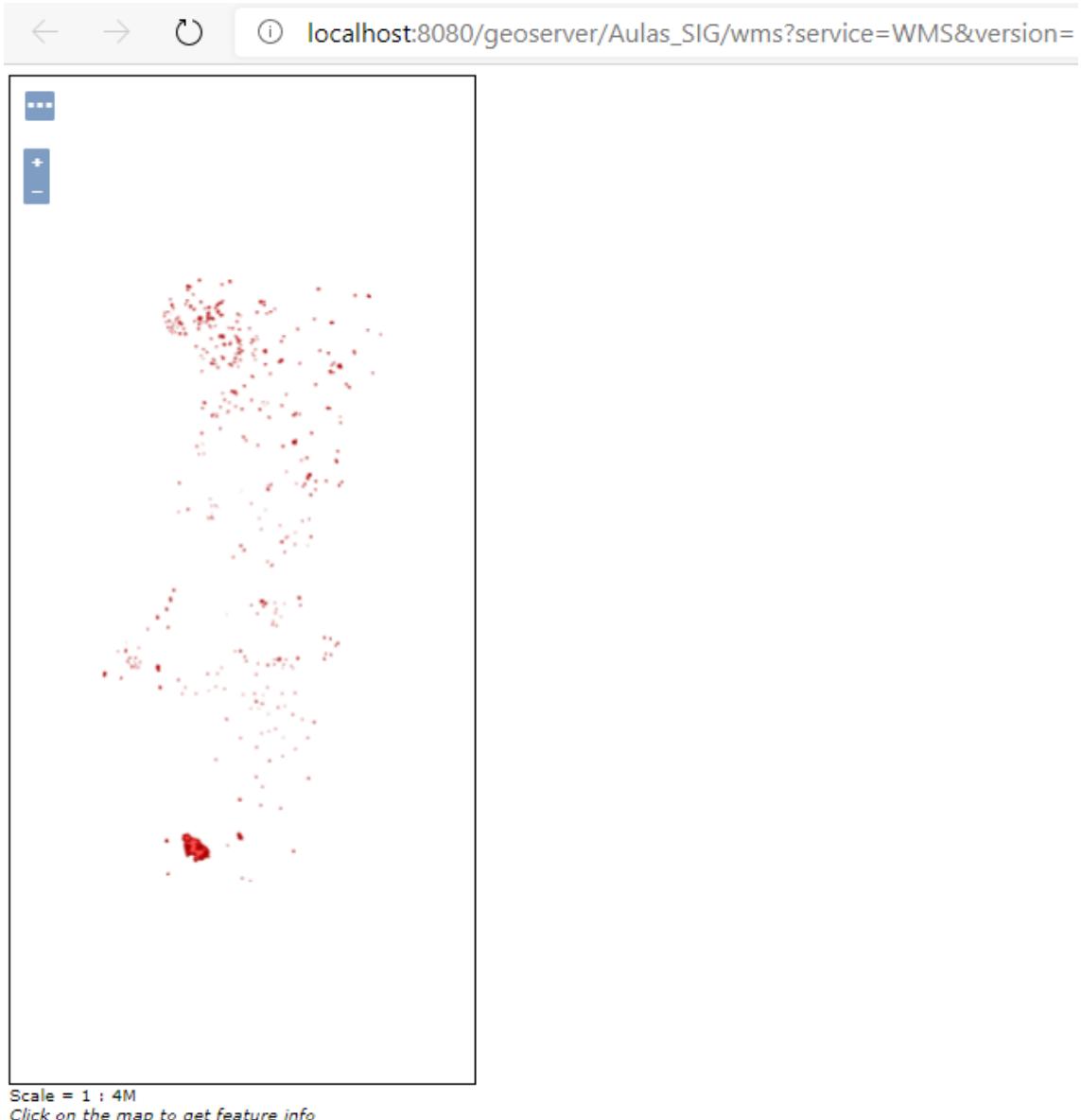
The 'Geometry Viewer' tab is active, displaying a map of Viana do Castelo with numerous small blue dots scattered across the area, representing the geographical data from the selected table.

Ao fazer layer preview e selecionando o widget OpenLayers o mapa aparecerá no browser indicando que está disponível para ser utilizado pro um visualizador de informação geográfica:

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Instalação do Servidor Cartográfico Geoserver

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Proceda à criação das Layers das restantes shapefiles:

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Instalação do Servidor Cartográfico Geoserver

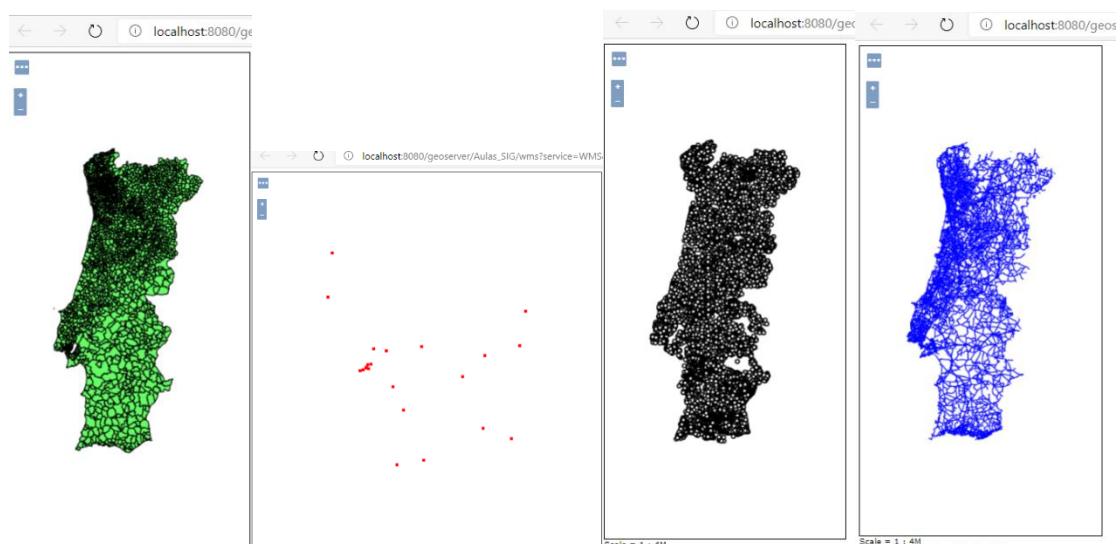
(versão 1)

ardida_2018.cst	Cont_AAD_CAOP2015.dbf	farmacias_viana.dbf
ardida_2018.dbf	Cont_AAD_CAOP2015.prj	farmacias_viana.prj
ardida_2018.prj	Cont_AAD_CAOP2015.sbn	farmacias_viana.sbn
ardida_2018.shp	Cont_AAD_CAOP2015.sbx	farmacias_viana.sbx
ardida_2018.shx	Cont_AAD_CAOP2015.shp	farmacias_viana.shp
wfsrequest	Cont_AAD_CAOP2015.shp	farmacias_viana.shp
	Cont_AAD_CAOP2015.shx	farmacias_viana.shx
		farmacias_viana.shx
arrabida		
Estrela		
Geres		
rede_viaria.dbf	ifn_2015.cst	wfsrequest
rede_viaria.prj	ifn_2015.dbf	zonas_caca.cst
rede_viaria.sbn	ifn_2015.prj	zonas_caca.dbf
rede_viaria.sbx	ifn_2015.shp	zonas_caca.prj
rede_viaria.shp	ifn_2015.shx	zonas_caca.shp
rede_viaria.shx	wfsrequest	zonas_caca.shx

as quais foram importadas para a base de dados.

Type	Title	Name	Store	Enabled	Native SRS
Shapefile	ardida_2018	Aulas_SIG.ardida_2018	bd_aula_sig	✓	EPSG:3763
Shapefile	cont_aad_caop2015	Aulas_SIG.cont_aad_caop2015	bd_aula_sig	✓	EPSG:3763
Shapefile	farmacias_viana	Aulas_SIG.farmacias_viana	bd_aula_sig	✓	EPSG:3763
Shapefile	ifn_2015	Aulas_SIG.ifn_2015	bd_aula_sig	✓	EPSG:3763
Shapefile	pontos_agua	Aulas_SIG.pontos_agua	bd_aula_sig	✓	EPSG:3763
Shapefile	rede_viaria	Aulas_SIG.rede_viaria	bd_aula_sig	✓	EPSG:3763
Shapefile	zonas_caca	Aulas_SIG.zonas_caca	bd_aula_sig	✓	EPSG:3763

Por exemplo: a visualização da CAOP, farmácias de Viana e os pontos de água e da rede viária (estradas):



O serviço da CAOP fica disponível em:

http://localhost:8080/geoserver/Aulas_SIG/wms?service=WMS&version=1.1.0&request=Get

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(versão 1)

[Map&layers=Aulas_SIG%3Acont_aad_caop2015&bbox=-119191.4140625%2C-300404.8125%2C162129.09375%2C276083.78125&width=374&height=768&srs=EPSG%3A3763&styles=&format=application/openlayers](http://localhost:8080/geoserver/Aulas_SIG/wms?service=WMS&version=1.1.0&request=GetMap&layers=Aulas_SIG%3Acont_aad_caop2015&bbox=-119191.4140625%2C-300404.8125%2C162129.09375%2C276083.78125&width=374&height=768&srs=EPSG%3A3763&styles=&format=application/openlayers)

O serviço das farmácia:

[Map&layers=Aulas_SIG%3Afarmacias_viana&bbox=-60846.453125%2C217551.078125%2C-45337.62109375%2C234159.984375&width=717&height=768&srs=EPSG%3A3763&styles=&format=application/openlayers](http://localhost:8080/geoserver/Aulas_SIG/wms?service=WMS&version=1.1.0&request=GetMap&layers=Aulas_SIG%3Afarmacias_viana&bbox=-60846.453125%2C217551.078125%2C-45337.62109375%2C234159.984375&width=717&height=768&srs=EPSG%3A3763&styles=&format=application/openlayers)

Neste ponto, os serviços estão disponíveis para serem utilizados.

3- Configuração dos Serviços Geoserver ligados a uma diretoria de shapefiles

Para exemplificar a ligação do Geoserver a uma shapefile e não através da ligação a uma tabela de uma base de dados (onde previamente poderia ter sido importada a shapefile), considere a shapefile das ECOPISTAS obtida em: <https://dados.gov.pt/pt/datasets/ecopistas/>

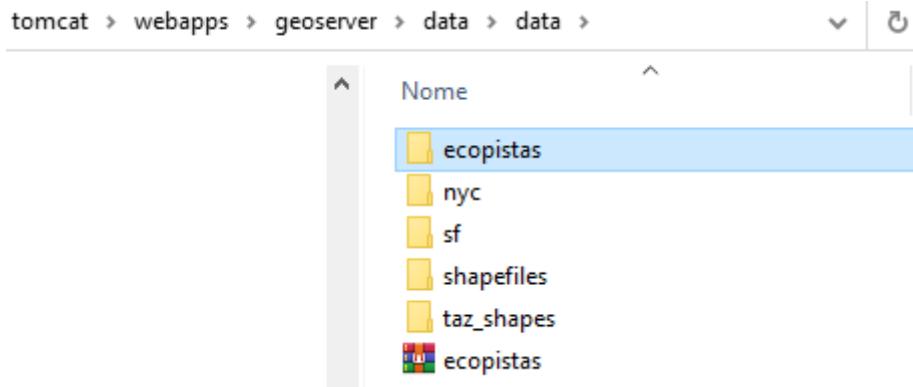
The screenshot shows the homepage of the **dados.gov** portal. At the top, there is a search bar with the URL dados.gov.pt/pt/datasets/ecopistas/. Below the search bar is the **dados.gov** logo and the text "Portal de dados abertos da Administração Pública". On the right side, there are buttons for "CONTRIBUIR!", "DOCUMENTAÇÃO", and "DADOS ABEI". The main content area has a large orange header with a magnifying glass icon and the text "Ecopistas ECO". Below this, a descriptive text reads: "Conjunto de dados geográficos relativos à localização de Ecopistas em Portugal, no formato shapefile e no sistema de coordenadas PT-TM06/ETRS89.". Underneath, there is a section titled "Recursos" with a "ZIP" file named "ecopistas.zip" (180.8 KB). The file is marked as "Disponível" and has a "Descarregar" button. There is also a small icon of a person with a gear.

Faça o download da shapefile e coloque numa diretoria dentro do geoserver:

Tutorial

Instalação do Servidor Cartográfico Geoserver

(versão 1)



Aceda no Geoserver à opção Directory of Shapefiles:

Tutorial

Instalação do Servidor Cartográfico Geoserver

(versão 1)

New Vector Data Source

Add a new vector data source

Directory of spatial files (shapefiles)
Takes a directory of shapefiles and exposes it as a data store

Basic Store Info

Workspace * **Aulas_SIG**

Data Source Name * **Shapefile ECOPSTAS**

Description

Enabled

Connection Parameters

Directory of shapefiles * **file:data/ecopistas**

DBF files charset **ISO-8859-1**

Create spatial index if missing/outdated

Use memory mapped buffers (Disable on Windows)

Cache and reuse memory maps (Requires 'Use Memory mapped buffers' to be enabled)

Buttons: Save, Apply, Cancel

Proceda à publicação da Layer:

New Layer

Add a new layer

You can create a new feature type by manually configuring the attribute names and types. [Create new feature type...](#)
Here is a list of resources contained in the store 'Shapefile ECOPSTAS'. Click on the layer you wish to configure

Published	Layer name	Action
	Ecopistas	Publish

localhost:8080/geoserver/web/wicket/bookmarkable/org.geoserver.web.data.layer.LayerPage?95

GeoServer

Logged in as admin. [Logout](#)

Layers

Manage the layers being published by GeoServer

[Add a new layer](#) [Remove selected layers](#)

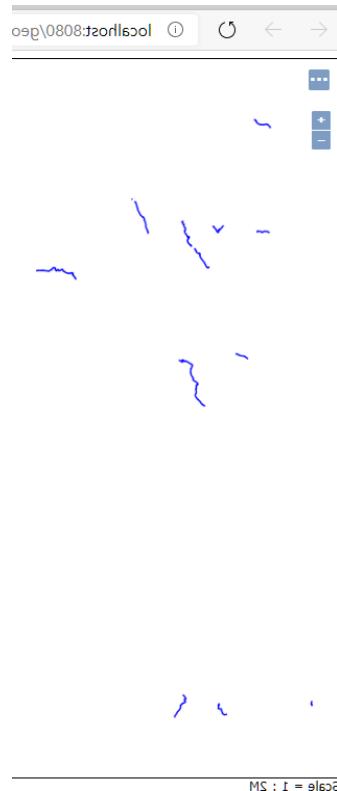
Type	Title	Name	Store	Enabled	Native SRS
	Ecopista	Aulas_SIG:Ecopistas	Shapefile ECOPSTAS	<input checked="" type="checkbox"/>	EPSG:3763
	ardida_2018	Aulas_SIG:ardida_2018	bd_aula_sig	<input checked="" type="checkbox"/>	EPSG:3763
	cont_aad_caop2015	Aulas_SIG:cont_aad_caop2015	bd_aula_sig	<input checked="" type="checkbox"/>	EPSG:3763
	farmacias_viana	Aulas_SIG:farmacias_viana	bd_aula_sig	<input checked="" type="checkbox"/>	EPSG:3763
	ifn_2015	Aulas_SIG:ifn_2015	bd_aula_sig	<input checked="" type="checkbox"/>	EPSG:3763
	pontos_agua	Aulas_SIG:pontos_agua	bd_aula_sig	<input checked="" type="checkbox"/>	EPSG:3763
	rede_viana	Aulas_SIG:redes_viana	bd_aula_sig	<input checked="" type="checkbox"/>	EPSG:3763
	zonas_caca	Aulas_SIG:zonas_caca	bd_aula_sig	<input checked="" type="checkbox"/>	EPSG:3763

E faça o Preview da Layer:

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Neste ponto, a Layer está disponível para ser utilizada.

4- Configuração dos Serviços no Geoserver com ligação via WFS e WMAs a serviços externos

Considere o serviço do exemplo disponibilizado pelo ICNF:

<https://geocatalogo.icnf.pt/catalogo.html>

 A screenshot of a web-based geocatalogue. At the top, there's a header with a logo and navigation links. Below the header is a toolbar with various icons. The main content area is a table listing protected sites categorized by theme. The columns are 'Tema ICNF', 'Tema INSPIRE', 'Nome', and two small icons. Each row has a download icon and an information icon. The table includes rows for 'Limites das Áreas Protegidas - RNAP', 'Limites das Zonas de Proteção Especial para as Aves - RN2000/ZPE', 'Sítios designados no âmbito da directiva Habitats - RN2000/SIC-ZEC-Lista nacional', 'Sítios RAMSAR - Convenção sobre Zonas Húmidas', 'Reservas da Biosfera - Programa Man and the Biosphere da UNESCO', 'Zonamento das Reservas da Biosfera', 'Reservas Biogenéticas', 'Inventário Nacional de Geossítios', 'Rede Nacional do Arvoredo de Interesse Público', and 'Programas Regionais de Ordenamento Florestal - Limites (2ª geração)'.

Tema ICNF	Tema INSPIRE	Nome		
Tema 1 - Organização territorial	I.09 Sítios protegidos	Limites das Áreas Protegidas - RNAP		
Tema 1 - Organização territorial	I.09 Sítios protegidos	Limites das Zonas de Proteção Especial para as Aves - RN2000/ZPE		
Tema 1 - Organização territorial	I.09 Sítios protegidos	Sítios designados no âmbito da directiva Habitats - RN2000/SIC-ZEC-Lista nacional		
Tema 1 - Organização territorial	I.09 Sítios protegidos	Sítios RAMSAR - Convenção sobre Zonas Húmidas		
Tema 1 - Organização territorial	I.09 Sítios protegidos	Reservas da Biosfera - Programa Man and the Biosphere da UNESCO		
Tema 1 - Organização territorial	III.11 Zonas de Gestão	Zonamento das Reservas da Biosfera		
Tema 1 - Organização territorial	I.09 Sítios protegidos	Reservas Biogenéticas		
Tema 1 - Organização territorial	I.09 Sítios protegidos	Inventário Nacional de Geossítios		
Tema 1 - Organização territorial	I.09 Sítios protegidos	Rede Nacional do Arvoredo de Interesse Público		
Tema 1 - Organização territorial	III.11 Zonas de Gestão	Programas Regionais de Ordenamento Florestal - Limites (2ª geração)		

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Reservas Biogenéticas

Metadados

Shapefile

KML

WMS http://si.icnf.pt/wms/reservas_biogeneticas

WFS http://si.icnf.pt/wfs/reservas_biogeneticas

New data source

Choose the type of data source you wish to configure

Vector Data Sources

- Directory of spatial files (shapefiles) - Takes a directory of shapefiles and exposes it as a data store
- GeoPackage - GeoPackage
- PostGIS - PostGIS Database
- PostGIS (JNDI) - PostGIS Database (JNDI)
- Properties - Allows access to Java Property files containing Feature information
- Shapefile - ESRI(tm) Shapefiles (*.shp)
- Web Feature Server (NG) - Provides access to the Features published a Web Feature Service, and the ability to perform transactions on the server (when supported / allowed).

Raster Data Sources

- ArcGrid - ARC/INFO ASCII GRID Coverage Format
- GeoPackage (mosaic) - GeoPackage mosaic plugin
- GeoTIFF - Tagged Image File Format with Geographic information
- ImageMosaic - Image mosaicking plugin
- WorldImage - A raster file accompanied by a spatial data file

Other Data Sources

- WMS - Cascades a remote Web Map Service
- WMTS - Cascades a remote Web Map Tile Service

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er Logout

Edit WMS Connection

Description **Basic Store Info**

Workspace * **Aulas_SIG**

WMS Source Name * **Biogenetic Reserves**

Description

Enabled

Connection Info

Capabilities URL * **http://si.icnf.pt/wms/reservas_biogeneticas**

User Name **[redacted]**

Password **[redacted]**

Use HTTP connection pooling

Max concurrent connections * **6**

Connect timeout in seconds * **30**

Read timeout in seconds * **60**

Save Cancel

localhost:8080/geoserver/web/wicket/page?100

Logged in as admin. Logout

New Layer

Add a new layer

You can import all cascading WMS layers from selected store at once using **batch import**. Here is a list of resources contained in the store 'Reservas Biogenéticas'. Click on the layer you wish to configure.

Published	Layer name	Action
[redacted]	reservas_biogeneticas_ptcont	Publish

[<<] [<] [1] [>] [>>] Results 1 to 1 (out of 1 items)

Fazendo o Layer Preview, verifica-se que corresponde ao disponibilizado no ICNF:

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localhost:8080/geoserver/Au

Reservas Biogenéticas

Metadados

Shapefile

KML

WMS http://si.icnf.pt/wms/reservas_biogeneticas

WFS http://si.icnf.pt/wfs/reservas_biogeneticas