

GeoTriples Web Application Tutorial

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Installation

The user can build the GeoTriples web application from sources, or alternatively, download the pre-built package provided. This tutorial has been tested against Ubuntu 16.04 and macOS Sierra 10.12 distributions.

Build from source

Assuming Apache Maven and Java 8 JDK are already installed in your system, download the source code from <https://bitbucket.org/despinaSaptelianou/geotriples-webapp>:

```
$ git clone https://bitbucket.org/despinaSaptelianou/geotriples-webapp
```

Change directory to the root directory of GeoTriples web application code:
\$ cd GeoTriples-WebApp

Compile the source code and generate the jar executable:
\$ mvn package # build

Download the pre-built executable

The pre-built executable is available for download at
<https://bitbucket.org/despinaSaptelianou/geotriples-webapp/downloads/geotriples-web-app.jar>

Running

Running the application is quite simple. The package is bundled with the Apache Jetty web server and there is no need to deploy a separate installation of a web server. The application server can be customised using the application.properties file or by providing properties through the java command line arguments.

Configuration using the properties file

Create a file named application.properties. Change directory to the directory containing the executable (geotriples-web-app.jar). Then create the properties file:
\$ touch application.properties

Open it using your favourite editor and add the following properties

```
# EMBEDDED SERVER CONFIGURATION
# Server HTTP port
server.port=8080
# Network address to which the server should bind to
server.address=127.0.0.1

# MULTIPART (UPLOAD CONFIGURATION)
# Max file size. Values can use the suffixed "MB" or "KB" to indicate a Megabyte or Kilobyte size
spring.http.multipart.max-file-size=128MB
spring.http.multipart.max-request-size=128MB # Max request size. Values can use the suffixed "MB" or "KB" to indicate a
Megabyte or Kilobyte size
storage.location=AA # Name of the directory where the uploaded content will be stored
```

Using the above configuration, the server will listen at port 8080 and accept HTTP requests with destination address: 127.0.0.1. Users can upload files with size up to 128MB and with total request size 128MB. The uploaded files will be stored in local disk under the directory "AA".

Ensure the application.properties file is located side by side with the GeoTriples jar file.

Configuration using Java command line arguments

All the aforementioned properties can also be provided as java command line arguments when running the web application (see below)

Running the web application

Execute the jar file using the java command:

```
$ java -jar geotriples-web-app.jar
```

alternatively provide the desired properties as arguments:

```
$ java -jar -Dserver.port=8080 -Dstorage.location=AA geotriples-web-app.jar
```

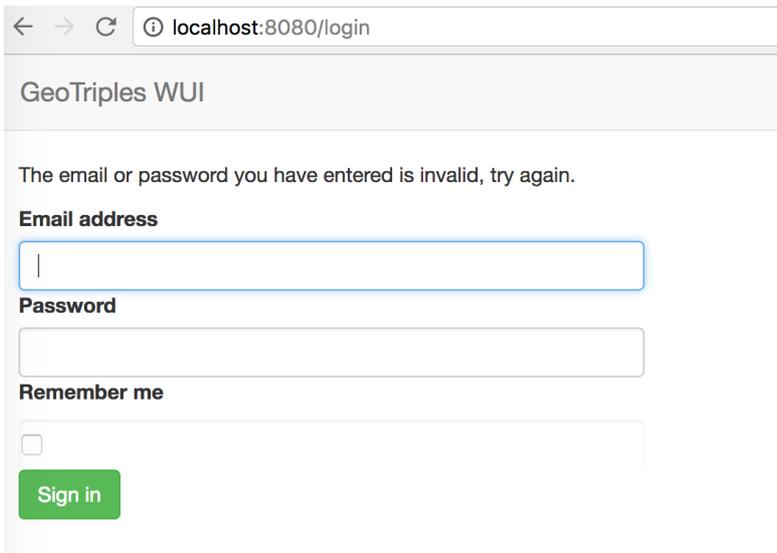
which would override the "server.port" and "storage.location" values given in the application.properties file.

```
2017-10-15 19:58:35.619 INFO 41476 --- [          main] o.e.jetty.server.AbstractConnector : Started
ServerConnector@505a9d7c{HTTP/1.1,[http/1.1]}{0.0.0.0:8080}
2017-10-15 19:58:35.620 INFO 41476 --- [          main] .s.b.c.e.j.JettyEmbeddedServletContainer : Jetty started on
port(s) 8080 (http/1.1)
2017-10-15 19:58:35.625 INFO 41476 --- [          main] gr.uoa.di.geotriples.Application : Started Application in
16.85 seconds (JVM running for 17.592)
```

Wait until the output looks like the following:

Usage

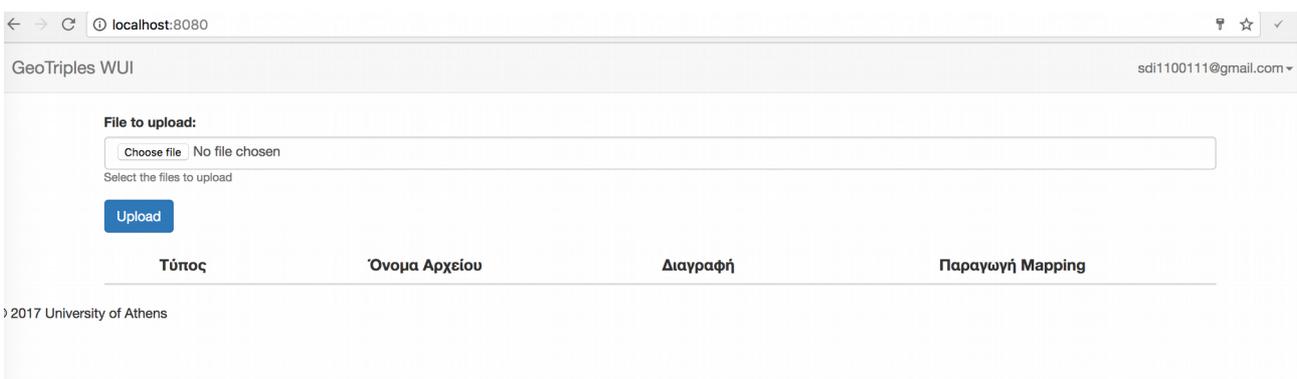
The web application is up and running at <http://127.0.0.1:8080>



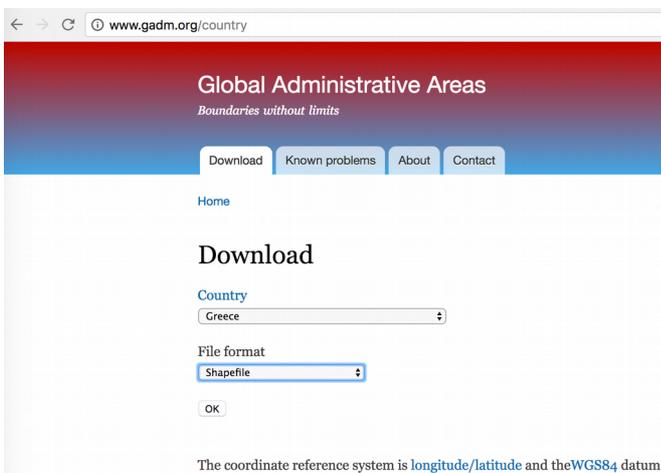
The application requires authentication before allowing the user to upload and transform their data into RDF. A user can register himself at <http://127.0.0.1:8080/registration> using their email address and a new password.



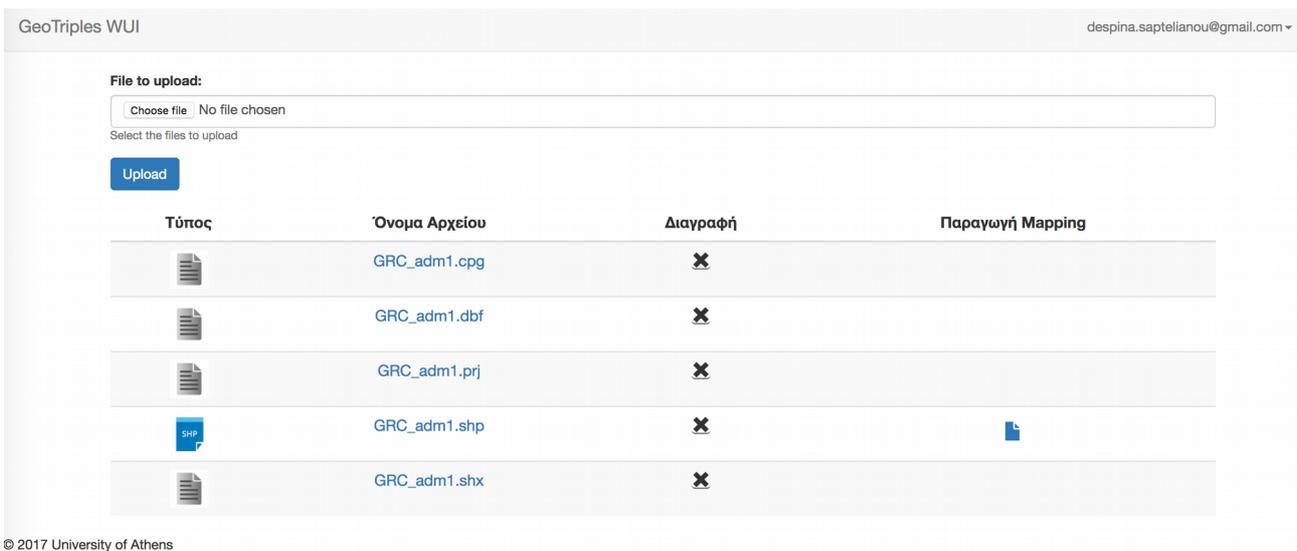
After the successful login, the main dashboard is loaded. Here, the user can upload files and convert them to RDF graphs. The screen looks like:



Start by downloading the Greek administrative areas Shapefile from the Global Administrative Areas website: <http://www.gadm.org/country>. Select Greece in the Country, and Shapefile in the File-format comboboxes respectively.



Unzip the downloaded archive and return to GeoTriples dashboard. Upload all files starting with GRC_adm1. The screen looks like:



The uploaded files are listed in a table. The last column (if applicable) contains a button used to generate the default RML mapping for the corresponding file. Push the button to generate the default mapping for the Shapefile. Notice that all files that constitute the Shapefile (all starting with GRC_adm1) should be uploaded in order to be able to produce the mapping/RDF dump.

The user can edit the generated mapping or proceed with the default mapping as is.

Unsupported file types are automatically identified and the generate mapping button () is not available for them.

GeoTriples WUI

File to upload:
Choose file No file chosen

Select the files to upload

Upload

Τύπος	Όνομα Αρχείου	Διαγραφή	Παραγωγή Mapping
	GRC_adm1.cpg		
	GRC_adm1.dbf		
	GRC_adm1.prj		
	GRC_adm1.shp		
	GRC_adm1.shx		
	pre registration 17 full time.pdf		
	ReadMeVaseis.txt		
	Sacramentorealestatetransactions.csv		