# Deployment

Backend of the application consists of two separate server instances. First one named “bwat-server” and it is responsible for authentication and binding annotation information to an account. The other one is named “bwat-ld-db” and its purpose is to provide a database implementation for annotation data. Each of them are created using Java 8 and Maven.

Server packages are provided in both .war and .jar formats. Server instances can be deployed as .war files to a servlet container such as Tomcat or WebLogic, and even better, they can be started directly as Java applications since the provided .jar package already contains an embedded tomcat server instance.

## Deployment Using War Files

Deployment using the war files is quite straightforward since most of the configuration setting handled by the servlet container. Since there are two server instances and they should bound together, there is still a little configuration to be set.

On the “bwat-server”, there is file named “application.properties”, which provides a convenient way of externalizing platform specific configuration. In the file, there is a name-value pair as following:

*app.config.annotation-server-base-url*=http://localhost:8083

The default provided value is “http://localhost:8083”, which is a convenient default value since most probably, the two instances will be working on the same machine. As long as they work on the same machine, they can be accessed each other using “localhost” placeholder.

However, since using .war file means the deployment will be made on a servlet container, the server URLs will be provided by the container. Therefore, the configuration should be made accordingly.

## Deployment Using Jar Files

Deployment using the “.jar” files, is the most convenient and simple way to deploy both server instances. Configuration files already contains the required settings two work together.

As default, “bwat-server” has been set to work on port 8080 and the “bwat-ld-db” server instance set to work on 8083.

As long as they operate on the same machine, default configuration will be working.

To start server instances, use below console commands:

*java -jar -Dspring.profiles.active=dev bwat-server-0.0.1-SNAPSHOT.jar 2>errorOutput.log > output.log &*

*java -jar -Dspring.profiles.active=dev bwat-ld-db-0.0.1-SNAPSHOT.jar 2>ldErrorOutput.log > ldOutput.log &*

First command is to start “bwat-server” and the second command is to start “bwat-ld-db” server.

# Dependencies

The “bwat-server” has the following dependencies:

* spring-boot-starter-data-rest: 1.4.1.RELEASE
* spring-boot-devtools: 1.4.1. RELEASE
* lombok: 1.16.10
* spring-boot-starter-security: 1.4.1.RELEASE
* spring-boot-starter-web: 1.4.1.RELEASE
* h2: 1.4.192
* spring-security-test: 4.1.0.RELEASE
* json-path: 2.2.0
* json-path-assert: 2.2.0
* spring-boot-starter-test: 1.4.1.RELEASE
* spring-boot-starter-data-jpa: 1.4.1.RELEASE
* springfox-swagger-ui: 2.2.2
* springfox-swagger2: 2.2.2
* modelmapper-spring-boot-starter: 1.1.0

The “bwat-ld-db” has the following dependencies:

* spring-boot-starter-data-mongodb: 1.4.2.RELEASE
* spring-boot-starter-web: 1.4.2.RELEASE
* lombok: 1.16.10
* fongo: 2.0.6
* spring-boot-starter-test: 1.4.2.RELEASE
* jsonld-java: 0.8.3