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# **Wikijournals Documentation**

*Release 0.2*

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## Contents

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<b>1</b>	<b>Wikijournals Server</b>	<b>3</b>
1.1	Description . . . . .	3
1.2	Requirements . . . . .	3
1.3	Pre-Install Tasks . . . . .	3
1.4	Installation . . . . .	4
1.5	Update . . . . .	6
<b>2</b>	<b>Setup Elastic Search (Ubuntu 18)</b>	<b>7</b>
2.1	Installation Elastic Search . . . . .	7
2.2	Installation of Elastica . . . . .	8
2.3	Installation of CirrusSearch . . . . .	8
2.4	Configuration of CirrusSearch . . . . .	8
<b>3</b>	<b>Wikijournals API</b>	<b>9</b>
<b>4</b>	<b>Indices and tables</b>	<b>11</b>



Contents:



### 1.1 Description

Wikijournals-server is a web application, based on Semantic Mediawiki. This application allow collecting articles, publishers, publications and authors in a semantic database. The following functions are available:

- Saving semantic attributes for articles like persons, companies and locations
- Searching for articles, publications, publishers and authors by using semantic attributes
- Basic social network functions for registered users (f.e. user board for sending internal messages)

### 1.2 Requirements

- Linux Server (for example Ubuntu 18)
- Webservice: Apache > 2.0
- Database: MySQL >= 5.7
- Scripting Language: PHP >= 7.0
- Minimum space on server: 100 MB
- Installed Composer (Dependency Manager for PHP)
- Installed Git
- Existing empty Database in MySQL

### 1.3 Pre-Install Tasks

- Clone wikijournals git repo => `git clone https://github.com/swertschak/wikijournals.git`

- Create empty database in MySQL (if not exists)
- Note the following database parameters for the installation
  - Database name
  - Database user
  - Database user password

## 1.4 Installation

### 1.4.1 Installation per Shell Script

- Open Terminal
- Change to the wikijournals code directory (the cloned git repo)
- execute command `tools/Install_Wikijournals.sh` as `sudo` with the following 9 parameters in this order
  - `html` directory
  - `wikijournals` directory
  - `dbuser`
  - `dbpass`
  - `dbserver`
  - `dbname`
  - `wikiuser`
  - `wikipwd`
  - `wikiname`

### Sample

**Danger:** Please note: The script `Install_Wikijournals.sh` must be run under a user, who has write access for the web directory on the server.

### 1.4.2 Manual Installation

#### Install Mediawiki

- Download current Mediawiki version from [mediawiki.org](http://mediawiki.org)
- Uncompress the mediawiki archive
- Upload the uncompressed archive to the web server f.i. `/htdocs/wikijournals`
- Ensure access to the web directory including sub-directories for the web user (f.i. `www-data`)
- For example per `chown` command: `sudo chown -cR www-data:www-data wikijournals`
- Perform normal mediawiki installation (see [https://www.mediawiki.org/wiki/Manual:Installation\\_guide](https://www.mediawiki.org/wiki/Manual:Installation_guide))



### Install Foreground Theme

- Download Foreground (git clone <https://github.com/thingles/foreground.git>)
- Install Foreground, see <https://github.com/thingles/foreground/>
- Set Foreground as Default Skin (see <https://www.mediawiki.org/wiki/Manual:\protect\T1\textdollarwgDefaultSkin>)

### Install Semantic Mediawiki

- see <https://www.semantic-mediawiki.org/wiki/Help:Installation>

### Install Semantic Extensions

- Semantic Compound Queries
- Semantic Drilldown
- Page Forms
- Semantic Internal Objects
- Semantic Maps
- Semantic Result Formats

### Install Mediawiki Extensions

- Maps
- Admin Links
- Data Transfer
- External Data
- Header Tabs
- MyVariables
- Page Schemas
- Variables
- Widgets

### Install Wikijournals Structure

- Open terminal
- Change to wikijournals directory on the web server
- Change to maintenance directory
- Copy wikijournalsStructure.xml from the wikijournals\_structure directory to the maintenance dir
- execute `php importDump.php < wikijournalsStructure.xml`

## 1.5 Update

Todo: Add update

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## Setup Elastic Search (Ubuntu 18)

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### 2.1 Installation Elastic Search

#### Step 1: Import Elasticsearch GPG Key

```
wget -qO - https://artifacts.elastic.co/GPG-KEY-elasticsearch | sudo apt-key add -
```

#### Step 2: Add Elasticsearch 5.x APT repository

```
echo "deb https://artifacts.elastic.co/packages/5.x/apt stable main" | sudo tee -a /  
→etc/apt/sources.list.d/elastic-5.x.list
```

#### Step 3: Install OpenJDK

```
sudo apt update && sudo apt upgrade  
sudo apt install apt-transport-https uuid-runtime pwgen openjdk-8-jre-headless
```

#### Step 4: Update apt package index and Install Elasticsearch 5.x

```
sudo apt update  
sudo apt install elasticsearch
```

#### Step 5: First Configuration of Elasticsearch

Open config file `/etc/elasticsearch/elasticsearch.yml` Set correct cluster name for your application:

```
cluster.name: my-application
```

Default minimum memory set for JVM is 2gb, if your server has small memory size, change this value:

```
sudo nano /etc/elasticsearch/jvm.options
```

Change

```
-Xms2g  
-Xms2g
```

to

```
-Xms512m  
-Xms512m
```

After modification of the configuration, Elasticsearch can be started:

```
sudo systemctl daemon-reload  
sudo systemctl enable elasticsearch.service  
sudo systemctl restart elasticsearch.service
```

Check status:

```
sudo systemctl status elasticsearch.service
```

## 2.2 Installation of Elastica

see <https://www.mediawiki.org/wiki/Extension:CirrusSearch#Elastica>

## 2.3 Installation of CirrusSearch

### Requirements

- ElasticSearch
- Curl
- php-curl

see <https://www.mediawiki.org/wiki/Extension:CirrusSearch#CirrusSearch>

## 2.4 Configuration of CirrusSearch

see <https://www.mediawiki.org/wiki/Extension:CirrusSearch#Configuration>

## CHAPTER 3

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### Wikijournals API

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## CHAPTER 4

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### Indices and tables

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- `genindex`
- `modindex`
- `search`