

- Assumptions:

- Running Kubernetes Cluster with access to kubectl client

- kubectl version

Client Version: version.Info{Major:"1", Minor:"18", GitVersion:"v1.18.3",

GitCommit:"2e7996e3e2712684bc73f0dec0200d64eec7fe40",

GitTreeState:"clean", BuildDate:"2020-05-20T12:52:00Z",

GoVersion:"go1.13.9", Compiler:"gc", Platform:"linux/amd64"}

Server Version: version.Info{Major:"1", Minor:"18", GitVersion:"v1.18.3",

oVersion:"go1.13.9", Compiler:"gc", Platform:"linux/amd64"}

- Steps

- Clone the repository

- git clone <https://github.com/hellodk/assignment.git>

- Now go to the directory

- cd assignment

- Create a namespace thoughtworks(optional, I've not used it)

- kubectl create ns thoughtworks

- Create StatefulSet & Headless Service for MySQL

- kubectl apply -f mysql-statefulsets

```
dk@typHoon:~/Documents/git/assignment$ kubectl apply -f mysql-statefulsets
configmap/initdb created
configmap/mysql created
service/mysql created
service/mysql-read created
statefulset.apps/mysql created
storageclass.storage.k8s.io/local-storage created
persistentvolume/mysql-volume created
persistentvolumeclaim/mysql-claim created
```

- Create Deployment and Service(NodePort)

- kubectl apply -f mediawiki

- List the pods and service

- kubectl get po, svc

```
dk@typHoon:~/Documents/git/assignment$ kubectl get po,svc
```

NAME	File	Edit	View	Insert	Format	READY	Ad	STATUS	elp	RESTARTS	AGE	ends ago
pod/mediawiki-84bbdbdf68-p8vpt						1/1		Running		0	12m	
pod/mysql-0						2/2		Running		0	12m	

NAME	TYPE	CLUSTER-IP	EXTERNAL-IP	PORT(S)	AGE
service/kubernetes	ClusterIP	10.233.0.1	<none>	443/TCP	29h
service/mediawiki	NodePort	10.233.58.217	<none>	80:31840/TCP	12m
service/mysql	ClusterIP	None	<none>	3306/TCP	12m
service/mysql-read	ClusterIP	10.233.29.36	<none>	3306/TCP	12m

- Create the users and databases
 - `kubectl run mysql-client --image=mysql:5.7 -i --rm --restart=Never -- \`
`mysql -h mysql-0.mysql <<EOF`
`CREATE USER 'wiki'@'%' IDENTIFIED BY 'mysqladmin';`
`CREATE DATABASE wikidatabase;`
`GRANT ALL PRIVILEGES ON wikidatabase.* TO 'wiki'@'%';`
`FLUSH PRIVILEGES;`
`EOF`
- Test if the users and the databases have been created
 - `kubectl run mysql-client --image=mysql:5.7 -i -t --rm --restart=Never -- bash -ic "mysql -h mysql-read -e 'SELECT user, host FROM mysql.user';"`
 - `kubectl run mysql-client-loop1 --image=mysql:5.7 -i -t --rm --restart=Never -- bash -ic "mysql -h mysql-read -e 'show databases';"`

```
dk@typHoon:~/Documents/git/assignment$ kubectl run mysql-client-loop1 --image=mysql:5.7 -i -t --rm --restart=Never -- bash -ic "mysql -h mysql-read -e 'SELECT user, host FROM mysql.user';"
```

If you don't see a command prompt, try pressing enter.

user	host
first_user	%
root	%
second_user	%
wiki	%
mysql.session	localhost
mysql.sys	localhost
root	localhost

```
dk@typHoon:~/Documents/git/assignment$ kubectl run mysql-client-loop1 --image=mysql:5.7 -i -t --rm --restart=Never -- bash -ic "mysql -h mysql-read -e 'show databases';"
If you don't see a command prompt, try pressing enter.
+-----+
| Database |
+-----+
| information_schema |
| mysql |
| performance_schema |
| sys |
| test |
| wikidatabase |
+-----+
pod "mysql-client-loop1" deleted
```

- Now go to the UI and complete the setup as shown in the screenshots

MediaWiki 1.34.2 installation

Language

Your language:

[help](#)

en - English

Wiki language:

[help](#)

en - English

[Continue →](#)

MediaWiki 1.34.2 installation

Welcome to MediaWiki!

Environmental checks

Basic checks will now be performed to see if this environment is suitable for MediaWiki installation. Remember to include this information if you seek support on how to complete the installation.

- PHP 7.3.22 is installed.
- Found ImageMagick: `/usr/bin/convert`.
Image thumbnailing will be enabled if you enable uploads.
- Found the Git version control software: `/usr/bin/git`.
- Using server name "http://192.168.10.30:31840".
- Using server URL "http://192.168.10.30:31840".
- **Warning:** Your default directory for uploads `/var/www/html/images/` is vulnerable to arbitrary scripts execution.
Although MediaWiki checks all uploaded files for security threats, it is highly recommended to [close this security vulnerability](#) before enabling uploads.
- Using the PHP intl extension for Unicode normalization.

The environment has been checked. You can install MediaWiki.

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[← Back](#) [Continue →](#)

- Language
- Existing wiki
- **Welcome to MediaWiki!**
- Connect to database
- Upgrade existing installation
- Database settings
- Name
- Options
- Install
- Complete!
- [Restart installation](#)

Database type:

- ☒ MariaDB, MySQL, or compatible
☐ SQLite

MariaDB/MySQL settings

Database host:

[help](#)

mysql

Identify this wiki

Database name (no hyphens):

[help](#)

wikidatabase

Database table prefix (no hyphens):

[help](#)

wiki_

User account for installation

Database username:

[help](#)

wiki

Database password:

[help](#)

MediaWiki 1.34.2 installation

Name

Name of wiki:

[help](#)

thoughtworks

Project namespace:

[help](#)

- ☒ Same as the wiki name: Thoughtworks
☐ Project
☐ Other (specify)

Administrator account

Your username:

[help](#)

hellodk

Password:

Password again:

Email address:

[help](#)

abc@example.com

[help](#)

☐ Subscribe to the [release announcements mailing list](#).

[help](#)

☒ Share data about this installation with MediaWiki developers.



You are almost done! You can now skip the remaining configuration and install the wiki right now.



[MediaWiki home](#)
[User's Guide](#)
[Administrator's Guide](#)
[FAQ](#)

[Read me](#)
[Release notes](#)
[Copying](#)
[Upgrading](#)

MediaWiki 1.34.2 installation

Complete!



Congratulations! You have installed MediaWiki.

The installer has generated a `LocalSettings.php` file. It contains all your configuration.

You will need to download it and put it in the base of your wiki installation (the same directory as `index.php`). The download should have started automatically.

If the download was not offered, or if you cancelled it, you can restart the download by clicking the link below:



[Download LocalSettings.php](#)

Note: If you do not do this now, this generated configuration file will not be available to you later if you exit the installation without downloading it.

When that has been done, you can [enter your wiki](#).



Did you know that your wiki supports [extensions](#)?

You can browse [extensions by category](#).

LocalSetting....php ^

- Go to the Downloads folder where the file has been downloaded
- Now copy the LocalSettings.php to the mediawiki container
 - `kubectl cp ~/Downloads/LocalSettings.php mediawiki-84bbdbdf68-pgw6t:/var/www/html/`
- Copying files to pods/containers is not a correct way – Contradicts immutable images
- Unfortunately we can not help much here because of the following reasons:
 - The application is designed in such a way
 - I've just worked on mediawiki today – I do not know if a better technique exists
- Now go to the browser and type <IP>:38014

← → ↻ ⚠ Not secure | 192.168.10.30:31840/index.php/Main_Page ☆ ○

Set \$wgLogo to the URL path to your own logo image.

Main page Discussion Read Edit View

Main Page

MediaWiki has been installed.

Consult the [User's Guide](#) for information on using the wiki software.

Getting started [\[edit\]](#)

- [Configuration settings list](#)
- [MediaWiki FAQ](#)
- [MediaWiki release mailing list](#)
- [Localise MediaWiki for your language](#)
- [Learn how to combat spam on your wiki](#)

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Main page
Recent changes
Random page
Help about MediaWiki

Tools

What links here
Related changes
Special pages
Printable version
Permanent link
Page information

- Improvements:
 - Ingress can be used instead of NodePort
 - StorageClasses can be used extensively for dynamic volume creation