

Install DOMjudge 5.3.0 JudgeHost

Han K.H. > Computer Science > Programming Contest System > DOMjudge > Install DOMjudge 5.3.0 JudgeHost

I khhan1993 | } 2017-11-05 | v 0 | m DOMjudge | □ Contest System, DOMjudge

Install DOMjudge 5.3.0 JudgeHost

This article contains how to install DOMjudge 5.3.0 JudgeHost.

- Previous article: [Install Web Server](#)

Currently, 5.3.1 version has a serious bug with JudgeHost. (Please see [this issue](#))

Therefore, in this article, I'll use 5.3.0 instead.

JudgeHost Environment

- Ubuntu 16.04.3 LTS (with [Amazon Web Services](#) – [EC2](#))
- PHP7
- MySQL 5.7 Client (for MySQL Command Line tools)

Update default packages

```
1. $ sudo apt update && sudo apt full-upgrade -y
```

Install Required Packages

```
1. $ sudo apt install gcc g++ make cmake automake autoconf build-essential binutils gcc-multilib g++-multilib zip unzip mysql-client debootstrap libcgroup-dev php7.0-cli php7.0-curl php7.0-json php7.0-zip procps -y
```

If you want to support another language (eg. Java), install corresponding packages.

Install JudgeHost

```
1. $ wget https://www.domjudge.org/releases/domjudge-5.3.0.tar.gz
2. $ tar -xf domjudge-5.3.0.tar.gz
3. $ cd domjudge-5.3.0.tar.gz
4. $ ./configure --disable-submitclient
5. $ make domserver
6. $ make judgehost
7. $ sudo make install-judgehost
```

After execution of above commands, you have to edit '/opt/domjudge/judgehost/etc/restapi.secret' file.

```
1. $ sudo vim /opt/domjudge/judgehost/etc/restapi.secret
```

The content of this file is like this.

```
1. # Randomly generated on host ip-172-31-19-104, Sun Nov 5 07:31:30 UTC 2017
```

2. # Format: '<ID> <API url> <user> <password>'
3. default http://localhost/domjudge/api judgehost Vr1ALkvBAAXWgdHa

You have to edit 'API url' to your web interface url.

If you open the 'API url' page, web browser will show like this.

DOMjudge REST API

Welcome to the DOMjudge REST API.
This is API version: 3
running on DOMjudge version: 5.3.1

You are: admin with roles admin

The supported functions are:

</domjudge/api/affiliations> (GET)

Get a list of affiliations, with for each affiliation: affilid, shortname, name and country.

Optional arguments:

- *country*: ISO 3166-1 alpha-3 country code to search for.

Example usage:

</domjudge/api/affiliations?country=NLD>

Required roles: none

</domjudge/api/categories> (GET)

Get a list of all categories/groups.

Optional arguments:

- *public*: only show public data, even for users with more roles

Required roles: none

</domjudge/api/clarifications> (GET)

Get a list of all public clarifications.

Optional arguments:

If the API url is "http://10.20.30.40/domjudge/api", you have to replace it.

For password, you have to set your judgehost password.

In the web interface, you can see the list of users like this.

[home](#)
[balloons](#)
[problems](#)
[judgehosts](#)
[teams](#)
[users](#)
[clarifications](#)
[submissions](#)
[rejudgings](#)
[scoreboard](#)

contest: No contest
logged in as Administrator
[Enable notifications](#)

Users

username	name	email	roles	team	status
admin	Administrator		admin		●
judgehost	User for judgedaemons		judgehost		●

<https://hpc.hanyang.ac.kr/domjudge/jury/users.php>

You can set your judgehost password here.

After setting password, you have to replace password in 'restapi.secret' file to your own password.

Add Cgroup Support

Open '/etc/default/grub'.

```
1. $ sudo vim /etc/default/grub
```

For AWS image, edit '/etc/default/grub.d/50-cloudimg-settings.cfg'.

```
1. $ sudo vim /etc/default/grub.d/50-cloudimg-settings.cfg
```

Find 'GRUB_CMDLINE_LINUX_DEFAULT' and add this content. (Don't erase original content! Just add it!)

```
1. GRUB_CMDLINE_LINUX_DEFAULT="quiet cgroup_enable=memory swapaccount=1"
```

After edit file, type commands.

```
1. $ sudo update-grub
2. $ sudo reboot
```

After reboot your system, check cgroup setting is applied correctly.

```
1. $ cat /proc/cmdline
```

If you see 'quiet cgroup_enable=memory swapaccount=1' in the output, cgroup setting is applied correctly.

Create Chroot Setting

You have to create chroot to ensure the security of judgehost system. Open below file.

```
1. $ sudo vim /opt/domjudge/judgehost/bin/dj_make_chroot
```

- Change “Debian” to “Ubuntu” in the line number 30.
- Change “Stretch” to “xenial” in the line number 31.
- (Optional) If you want to change apt mirror, edit the DEBMIRROR in the line number 149.

After change the content of this file, run command.

```
1. $ sudo /opt/domjudge/judgehost/bin/dj_make_chroot
```

It will take several minutes depends on your network connection state.

Add JudgeHost User

After chroot is created, run this command to create run user.

```
1. $ sudo groupadd domjudge-run
2. $ sudo useradd -d /nonexistent -g domjudge-run -s /bin/false domjudge-run
```

Disable “Appport” service in Ubuntu

Sometimes it makes problem with judging.

```
1. $ sudo service appport stop
2. $ sudo systemctl disable appport
```

Execute JudgeDaemon and check if it works correctly

```
1. $ cd /opt/domjudge/judgehost
2. $ sudo bin/judgedaemon
```

That's all. Next time, I'll talk about some tips for DOMjudge Web Interface.

📄 Post Views: 48

이 글 공유하기:



이것이 좋아요:

좋아요

먼저 좋아요를 누르세요.

관련

10/1/2018	Install DOMjudge 5.3.0 JudgeHost	
Install DOMjudge 5.3.1 Web Server	DOMjudge - Web Server 설치하기 (Web Server Installation)	NVPModel - NVIDIA Jetson TX2
2017-11-05	2017-10-11	2017-07-03
"DOMjudge"에서	"DOMjudge"에서	"I-SURF 2017"에서
← Previous post		Next post →