

Web Service Runbook

Short Description

The web service contains of a set of databases and a webserver that will host a webpage with curriculums and information about courses that are offered at CSUN.

Required Software

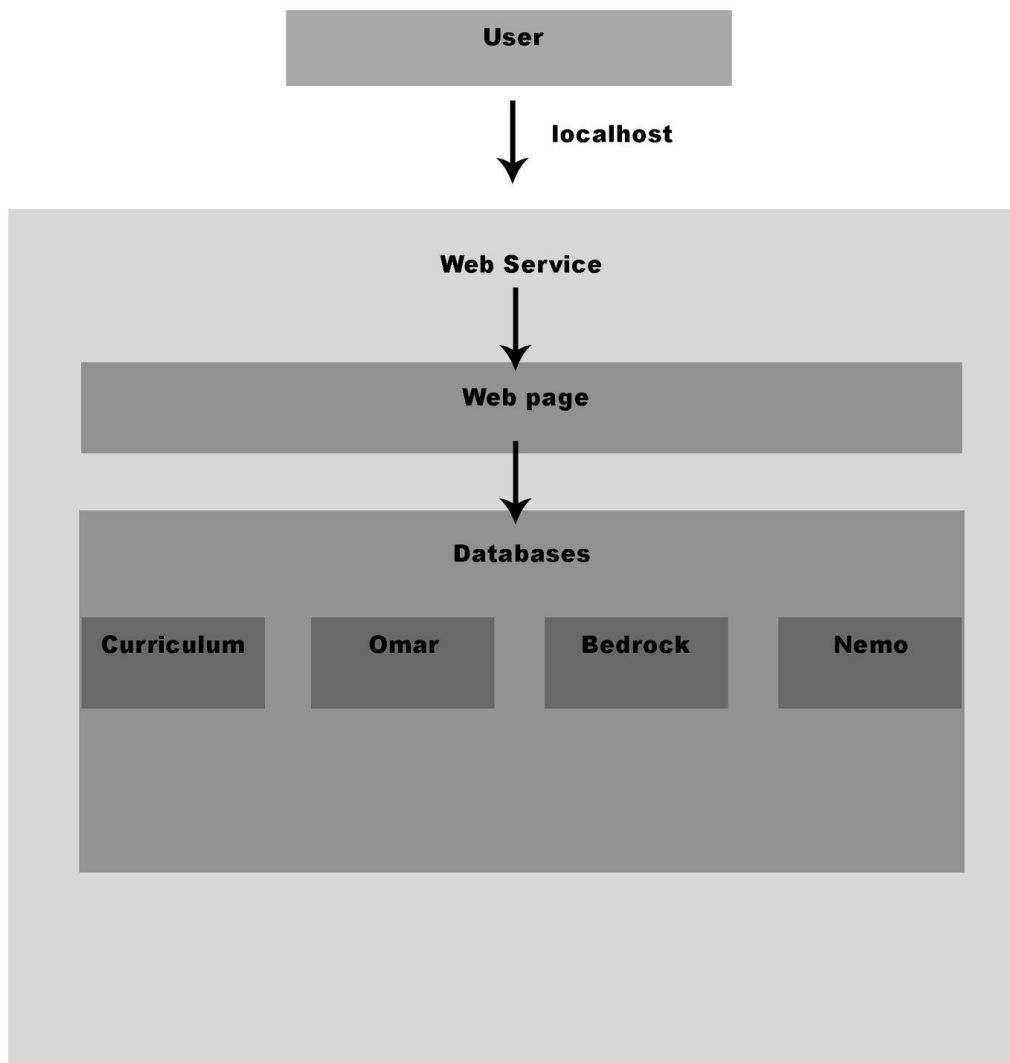
To run the databases following software are required:

- MariaDB-server
- MariaDB-client

To run the web-server following software are required:

- Updated version of epel-release
- Updated versions of PHP-specific software
- Nginx
- Composer from <https://getcomposer.org/installer>

Architecture Diagram



Deployment

Setup Vagrant:

Install Vagrant version 1.8.5 on your host OS.

If no Vagrantfile is present use: `vagrant init`

`vagrant up`

Run and copy the output of `vagrant ssh-config` and paste into the file `~/.ssh/config`.

Log in to the VM manually and type: `chmod 0600 ~/.ssh/authorized_keys`

Setup Ansible:

Install Ansible version 2.2.0 on your host OS.

Run following two playbook-scripts:

```
ansible-playbook -i hosts.ini db.yml --ask-vault-pass
```

```
ansible-playbook -i hosts.ini ask.yml --ask-vault-pass
```

Both scripts should return no errors.

Note: For security reasons the password for the vault are not presented here.

Issues

Title: Overload

Description: A web service can get so many request that it overloads and slows down dramatically or completely stops working.

Remediation Steps: It's possible to solve this by upgrading the performance that the service have access to, either for all time the service is active or only for the duration of time that the usage of the service peaks.

Title: Memory leak

Description: If a service is poorly built it might have memory leaks, where the service allocates memory space but doesn't deallocate the space. This will fill up the memory quickly and give no memory left to other services which will make the system fail.

Remediation Steps: Update the service to another version.

Title: Corrupt service

Description: If a service stops working and are not able to start again it might be corrupt.

Remediation Steps: Update the service to another version. If that doesn't work destroy vagrant, reinstall and rerun the ansible scripts.