Installation instructions for SDMdata

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Source code

You can download the source code from <https://github.com/howl-anderson/SDMdata>.

System require

SDMdata require UNIX®, Mac OS X® or Linux operating system. For those user who use Windows® system, we feel sorry that SDMdata currently not support Windows® yet for some technical reason. If user still want use SDMdata on Windows®, we think use a virtual machine is a good choice (we recommend VirtualBox® <http://www.virtualbox.org>), setup a virtual machine and install a Linux distribution (for example Ubuntu®), so system require will be satisfied.

Software require

SDMdata was written in python language and use several library that default may not installed in operating system. From technical and convenient reason, we don't recommend user check depend relation by yourself. We provide a script to check depend relation, if you miss something, the script will give you the information. In the top of SDMdata directory, have a file named "setup.py", run a terminal and type command:

```
./setup.py test
```

If you see some information indicate you need install some depended library. You can use `pip` tools to install the library (other tools can do the same thing, here `pip` just an example way), `pip` always default installed on your system. If not, try install the `pip` by yourself (different system have different command to do that, if you don't know how, please ask someone or go to internet for help). We assume you have `pip` installed, and the missing library named "flask", then you can type this command in your terminal:

```
pip install flask
```

Should notice that you may need to have the correct permissions to do this job, for example to be a root user. If not, may be you need use `sudo` command before this command, if you don't know how to do this or what is this, ask someone who familiar with this operating system.

Database require

SDMdata require a SQL database as store container. We recommend some big SQL database like MySQL®, PostgreSQL®. Current version of SDMdata not support SQLite quite well, especially when the data become bigger (we may fix this issue, or find the reason in the feature), so you'd better not use the SQLite as database.

Configure SDMdata

The only thing need to be configure is the database, you need tell SDMdata use which database and give the user and password (if any). In the `/sdmdata/sdmdata` directory, you can find a file named “db_config.py”, open it with text editor, you can a line like this:

DATABASE_URI = 'mysql://root:123456@localhost:3306/sdmdata?charset=utf8'

The part of “'mysql://root:123456@localhost:3306/sdmdata?charset=utf8'” will indicate the database information. This string actually is a database URI, for details you can see <http://docs.sqlalchemy.org/en/rel_0_9/core/engines.html>, here we give an example for MySQL® and PostgreSQL®:

We assume that your (

Database user name: USER

Database user password: PASSWORD

Database host name or IP: HOST

Database port: PORT

Database name: DATABASE_NAME

)

For MySQL® database:
'mysql://USER:PASSWORD@HOST:PORT/DATABASE_NAME'

For PostgreSQL® database: 'postgresql:// USER:PASSWORD@
HOST:PORT/DATABASE_NAME '

Create admin account

The next thing before use the SDMdata is create admin account. In the top directory, there is a file named “create_admin.py”, execute it in the terminal. It will create the admin account. If everything is ok, it will print “Admin account is created! Password: admin”, if the admin account already exists, it will not work and print “admin already exists! Nothing change!”, if it print some not like that, it may be the database connection issue, check you database configure and make sure the database is running.

Notice: default administrator account is “admin” and the password for admin is “admin”, you can change the password when you login as admin. For security reason, you should change you admin password at you first time login.

Control and configure SDMdata web server

In the root directory of SDMdata, there have a file named “server.sh”, in the terminal, you run the command that will allowed you to control the SDMdata server. You run the server with `./server.sh start`, stop the server with `./server.sh stop`, for more usage you can simple type `./server.sh` without any subcommand.

Maybe you want configure the server IP and the port. In this case you open the “server.sh” with text editor, you will find a line like:

HOST=”0.0.0.0”

This is which host you server to, default is “0.0.0.0” this means everyone who can access this host will be allowed to access the SDMdata server. If you want SDMdata server can be access localhost only, you can change the host to “127.0.0.1” or “localhost”.

If you want configure the port of server, you can find a line like:

PORT=8080

Change the `8080` to any port you want. Here is a tips you’d better not change the port to “80”, this port was reserved to other HTTP server. In generally, you should not use the port below 1024, be more safety you’d better use the port above 5000. If you know what you are doing, ignore this tips.

Notice: **DO NOT** add any space or invisible character around the `=` character, this is bash language demand.

More support

If you have any question or suggestion, please send email to us.