DTaaS Command Line Interface

This is a command line tool for the INTO-CPS-Association Digital Twins as a Service.

The CLI helps with addition and deletion of users on a live DTaaS application.

Installation

We recommend installing this in a virtual environment. Create and activate a virtual environment.

Steps to install:

1. Open a terminal
2. Go to the top-level DTaaS-v0.5.0 directory
3. Create python virtual environment
4. Execute `pip install dtaas` command

Usage

Setup

The base DTaaS application should be up and running before adding/deleting users with the CLI.

Additionally, Setup the *dtaas.toml* file in the *cli* directory:

- Set *common.server-dns* to domain name of your server. If you want to bring up the server locally, please set this to *"localhost"*.

- Set the *path* to the full system path of the DTaaS directory.

```
[common]
# absolute path to the DTaaS application directory
server-dns = "localhost"
path = "/home/Desktop/DTaaS"
```

Add users

To add new users using the CLI, fill in the *users.add* list in *dtaas.toml* with the Gitlab instance usernames of the users to be added

```
[users]
# matching user info must present in this config file
add = ["username1","username2", "username3"]
```

Then simply:

```
dtaas admin user add
```

Caveat

This brings up the containers, without any authorization protection for the user workspaces. The authorization microservice must be updated for enabling protection for new users.

- Currently the *email* fields for each user in *dtaas.toml* are not in use, and are not necessary to fill in. These emails must be configured manually for each user in the deploy/docker/conf.server files and the *traefik-forward-auth* container must be restarted. This is done as follows:

- Go to the *docker* directory

```
cd <DTaaS>/docker
```

- Add three lines to the `conf.server` file

```
rule.onlyu3.action=auth
rule.onlyu3.rule=PathPrefix(`/user3`)
rule.onlyu3.whitelist = user3@emailservice.com
```

Run the command for these changes to take effect:

```
docker compose -f compose.server.yml --env-file .env up -d --force-recreate traefik-forward-auth
```

The new users are now added to the DTaaS instance, with authorization enabled.

Delete users

TO delete existing users, fill in the *users.delete* list in *dtaas*.toml_ with the Gitlab instance usernames of the users to be deleted.

Make sure you are in the *cli* directory.

Then simply:

```
dtaas admin user delete
```

Additional Points to Remember

- The *user add* CLI will add and start a container for a new user. It can also start a container for an existing user if that container was somehow stopped. It shows a *Running* status for existing user containers that are already up and running, it doesn't restart them.

- *user add* and *user delete* CLIs return an error if the *add* and *delete* lists in *dtaas.toml* are empty, respectively.