

Simple Target Application

This is a simple application with necessary common user management functionality. This has been created as a dummy target system for exploring various Identity Management software integration techniques.

Requirement

- python 3
- pip
- pip install flask==1.1.1

How To:

Prepare Application

Run the following commands to ensure application faces no problem and create a prepopulated database. This is one time operation.

```
$ ./run_tests.sh  
$ ./setup_db.py
```

If everything is ok, the output of **run_tests.sh** should be like below

```
↳ ./run_tests.sh  
test_change_user_status (tests.user_manager_tests.UserManagerTests) ... ok  
test_that_add_roles_works (tests.user_manager_tests.UserManagerTests) ... ok  
test_that_connection_works (tests.user_manager_tests.UserManagerTests) ... ok  
test_that_create_user_works (tests.user_manager_tests.UserManagerTests) ... ok  
test_that_delete_roles_works (tests.user_manager_tests.UserManagerTests) ... ok  
test_that_delete_user_works (tests.user_manager_tests.UserManagerTests) ... ok  
test_that_get_org_list_works (tests.user_manager_tests.UserManagerTests) ... ok  
test_that_get_role_list_works (tests.user_manager_tests.UserManagerTests) ... ok  
test_that_get_user_details_work (tests.user_manager_tests.UserManagerTests) ... ok  
test_that_get_user_list_works (tests.user_manager_tests.UserManagerTests) ... ok  
test_that_get_user_roles_works (tests.user_manager_tests.UserManagerTests) ... ok  
test_that_update_user_works (tests.user_manager_tests.UserManagerTests) ... ok  
test_update_timestamp (tests.user_manager_tests.UserManagerTests) ... ok  
  
-----  
Ran 13 tests in 4.540s  
  
OK
```

Start Application

```
$ ./start_app.sh
```

Start Fresh

Delete the sqlite3 database under data folder. Afterwards, create database and start application.

```
$ rm data/user_data.db
$ ./setup_db.py
$ ./start_app.sh
```

API Documentation

Create

URL: <http://localhost:5000/api/v1/user/create>

Method: POST

HTTP Response Code: 201 CREATED

Attributes:

Attribute Name	[M]andatory/[O]ptional
username	M
firstname	O
lastname	M
mobile	O
email	O
empid	O
organization	M
status	O

Sample Request JSON

```
{
  "username": "usr8",
  "lastname": "lname",
  "organization": "IT"
}
```

Sample Response JSON

```
{
  "id": 8
}
```

Update

URL: <http://localhost:5000/api/v1/user/update>

Method: PUT

HTTP Response Code: 204 NO CONTENT

Attributes:

Attribute Name	[M]andatory/[O]ptional
id	M
username	O
firstname	O
lastname	O
mobile	O
email	O
empid	O
organization	O

Sample Request JSON

```
{
  "id": 6,
  "firstname": "Json"
}
```

Delete

URL: <http://localhost:5000/api/v1/user/delete>

Method: DELETE

HTTP Response Code: 204 NO CONTENT

Argument: id

Sample Request

```
curl --request DELETE 'http://localhost:5000/api/v1/user/delete?id=8'
```

Enable

URL: <http://localhost:5000/api/v1/user/enable>

Method: PUT

HTTP Response Code: 204 NO CONTENT

Argument: id

Sample Request

```
curl --request PUT 'http://localhost:5000/api/v1/user/enable?id=1'
```

Disable

URL: <http://localhost:5000/api/v1/user/disable>

Method: PUT

HTTP Response Code: 204 NO CONTENT

Argument: id

Sample Request

```
curl --request PUT 'http://localhost:5000/api/v1/user/disable?id=1'
```

Add roles to user

URL: <http://localhost:5000/api/v1/user/addroles>

Method: POST

HTTP Response Code: 201 CREATED

Argument: id

Sample Request

```
curl --request POST 'http://localhost:5000/api/v1/user/addroles?id=1' \
--header 'Content-Type: application/json' \
--data-raw '["R3", "R4"]'
```

Sample Request JSON

```
["R3", "R4"]
```

Remove roles from user

URL: <http://localhost:5000/api/v1/user/removeroles>

Method: DELETE

HTTP Response Code: 204 NO CONTENT

Argument: id

Sample Request

```
curl --request DELETE 'http://localhost:5000/api/v1/user/removeroles?id=1' \
--header 'Content-Type: application/json' \
--data-raw '["R2", "R3", "R4"]'
```

Sample Request JSON

```
["R2", "R3", "R4"]
```

Get user details

URL: <http://localhost:5000/api/v1/user/details>

Method: GET

HTTP Response Code: 200 OK

Argument: id

Sample Request

```
curl --request GET 'http://localhost:5000/api/v1/user/details?id=1'
```

Sample Response JSON

```
{
  "email": "usr1@example.com",
  "empid": "0001",
  "firstname": "User",
  "id": 1,
  "last_update": 1585139736563032913,
  "lastname": "One",
  "mobile": "0123456701",
  "organization": "IT",
  "roles": "__UNUSED__",
  "status": "ACTIVE",
  "username": "usr1"
}
```

Get user roles

URL: <http://localhost:5000/api/v1/user/details>

Method: GET

HTTP Response Code: 200 OK

Argument: id

Sample Request

```
curl --request GET 'http://localhost:5000/api/v1/user/roles?id=1'
```

Sample Response JSON

```
{
  "id": "1",
  "roles": [
    "R1",
    "R2"
  ]
}
```

Get user list

URL: <http://localhost:5000/api/v1/user/list>

Method: GET

HTTP Response Code: 200 OK

Sample Request

```
curl --request GET 'http://localhost:5000/api/v1/user/list'
```

Sample Response JSON

```
// user 'id'
[
  1,
  2,
  3,
  4,
  5,
  6,
  7
]
```

Get organization list

URL: <http://localhost:5000/api/v1/org/list>

Method: GET

HTTP Response Code: 200 OK

Sample Request

```
curl --request GET 'http://localhost:5000/api/v1/org/list'
```

Sample Response JSON

```
// Org Name: Org ID
{
  "Customer Care": "CC",
  "Finance": "FN",
  "Information Technology": "IT",
  "Marketing": "MK",
  "Sales": "SL"
}
```

Get role list

URL: <http://localhost:5000/api/v1/role/list>

Method: GET

HTTP Response Code: 200 OK

Sample Request

```
curl --request GET 'http://localhost:5000/api/v1/role/list'
```

Sample Response JSON

```
// Role Name: Role ID
{
  "Admin": "R1",
  "Agent": "R3",
  "Developer": "R2",
  "Manager": "R4"
}
```

TODO

- API authentication
- API test
- docker control script