LightBot

Artificially enhanced adaptive traffic control

SERVER ENDPOINTS MANUAL

Compiled by the Gradient Team for 5DT

GRADIENT

Installation

1. Node incl. npm needs to be installed on machine
2. Extract lightbot_server from production-build zip
3. Run 'npm install' to download node modules not included
4. Set sensitive environment variables as per instructions available in readme
5. Execute the command 'npm serve'

Testing and Maintenance

1. All maintenance is made easy due to the Model-View-Controller structured design
   - New routes can be added simply by adding them to the route manager
   - New data structures can be supported by creating schema models
   - New operations can be added via controllers with all generic operations such as mailing, authentication etc are available to any new operation as utilities and middleware's
2. Unit tests can be accessed within the /spec directory and run by executing the command 'npm test'. Expansions on these tests can be made simply by adding a new described test

Endpoints

1. Currently supported endpoints are those of user (supporting the web application for client information management) and data (for operational data processing and visualisation) and can be accessed off the host URL http://localhost:8000
2. Any unsupported endpoints will return an Http Error 404 Resource not found
3. /user endpoint, properties, and operational use

Request	Path	Access	Description
GET	/register	Public	User registration
GET	/login	Public	User sign in
GET	/logout	Private	User sign out route
PUT	/update-password	Private	Update password from application
POST	/recover-password	Public	Password recovery
PUT	/reset-password/:passresetid	Private	Email password reset
DELETE	/delete	Private	Delete account
GET	/list-user	Private	List other users

4. Data endpoints, properties, and operational use

Request	Path	Access	Description
GET	/ graph	Private	Get latest graph data
GET	/forum	Private	Get latest forum data
GET	/notification	Private	Get latest notifications
GET	/state	Private	Get latest state of system
POST	/post-forum	Private	Make a forum post
PUT	/post-forum/:forumpostid	Private	Edit a forum post
DELETE	/delete-forum/:forumpostid	Private	Delete a forum post

5. Examples of JSON data formats are as follows as well as an example of how data is returned:

Login:

```
{
    "User_email": "u17058849@tuks.co.za",
    "User_password": "kittenpaws"
}
```

```
{
"success": {
    "status": 200,
    "message": "User login successful.",
    "data": {
        "User_name": "Mohammed",
        "User_surname": "Gangat",
        "User_state": 1,
        "User_role": 1,
        "Auth_key": "eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.
        eyJ1c2VyIjp7ImlkIjoiNWYxOTM1NWU4MTgyYzk0OWE4NzFhMjRmIiwiVXNlcl9lbWFpbCI6InUxNzA1ODg0OUB0dWtzLmNvLnphIn0sImlhdCI6MTU5NTQ4Nzk2MCwiZXhwIjoxNTk1NTE2NzYwfQ.
        fGcT0vEKZSBZwupfVOgK36oOS_9QgmVjY6qL75bMCoA"
    }
}
}
```