

# Design of Dynamic Web Systems - Group DROP TABLES ${\tt Gustav\ Rixon,\ gusrix-8@student.ltu.se}$

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Github for project - https://github.com/Gustav-Rixon/M7011E



# Contents

C	Contents 2		
1	Not	${ m e}$	
2	API	I documentation 3	
	2.1	change_power	
	2.2	buy*	
	2.3	$\mathrm{sell}^*$	
	2.4	change_market_size	
	2.5	get_house_hold_data*	
	2.6	register*	
	2.7	login*	
	2.8	admin_login*	
	2.9	remove_user	
	2.10	block_user	
	2.11	get_market_data	
	2.12	change_buffert_to_market*	
	2.13	uploader	
	2.14	admin_view	
	2.15	get_user_pic	
	2.16	change_user_info	
	2.17	change market price	
	2.18	admin change power ratio	
	2.19	admin view power plants	
	2.20	admin send to market	



#### 1 Note

There are two types of API endpoints and in one of them the parameters have to come in the given order or the API wont give the expected response. These endpoints will be marked with \* in their title.

#### 2 API documentation

# 2.1 change\_power

Description: Changes a power plants power output

• method: POST

• endpoint : /admin/tools/change power

• parameters: token, id, target

• response : on success - Changing power, Unauthorised, Wrong request method; if not method is POST, if power change is 0 - Changing to nothing.

 $\textbf{Example:}\ HOST: 5000/admin/tools/change\_power? target = 1 \& id = adminid \& token = valid JWT \& power = 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 10000 + 100000 + 10000 + 100000 + 100000 + 100000 + 100000 + 100000 + 100000 + 100000 + 100000 + 100000 +$ 

#### 2.2 buy\*

Description: User buy from market

• method : POST

- $\bullet \ \ endpoint: /sell/house\_hold/prosumer/house\_hold\_id = < int: id> \& amount = < int: amount> \& token = < string: token> \\$
- parameters : token, id, amount
- response: if request is successful SUCC [INFO] else FAIL [INFO], Unauthorised, Wrong request method

#### 2.3 sell\*

Description: User sell to market

• method : POST

- endpoint: /sell/house hold/prosumer/house hold=<int:id>&amount=<int:amount>&token=<string:token>
- parameters: token, id, amount
- response: if request is successful You have now sold [INFO] else Failed not enough minerals!, Unauthorised, Wrong request method, if user is blocked Failed you are blocked from selling. Blocked for [INFO]

Example: HOST:5000/sell/house hold/prosumer/house hold id=1&amount=100&token=validJWT

# 2.4 change market size

Description: Change the size of the market

• method : POST

• endpoint : /admin/tools/change market size

• parameters: token, id, size

• response: if request is successful - Changning market size to [INFO], Unauthorised, Wrong request method

Example: HOST:5000/admin/tools/change market size?token=validJWT&id=adminid&size=1000



# 2.5 get house hold data\*

Description: Get a house holds data

• method : GET

• endpoint : /data/house hold=<int:id>token=<string:token>

• parameters: token, id

• response: json containing [INFO], Unauthorised, Wrong request method

Example: HOST:5000/data/house hold=1&token=validJWT

# 2.6 register\*

Description: Registers a user

• method: POST

endpoint : /register/username=<string:username>&password=
 <string:password>&email=<string:email>&address=<string:address>
 &zipcode=<string:zipcode>&prosumer=<int:prosumer>

• parameters : username, password, email, address, zipcode, prosumer

• response : -1 if failed, 1 if success

 $\label{lost:boson} \textbf{Example:} \ \ HOST: 5000/register/username = ben\&password = \%242b\%2410\%243ha4\%2FaS83a \\ 7Mhc5XRkSqyOwzo0rV\%2Fx8KNZeekiWOlz\%2FoHLu1pnQee\&email = bob@hotmail.comaddress = grondalsvagen + 110zipcode = 117 + 69prosumer = 1$ 

This will create a user bob with password 123qwe who is a prosomer living on grondalsvägen 110 zipcode 117 69.

#### 2.7 login\*

Description: Login a user

• method : POST

• endpoint : /login/username=<string:username>

• parameters : username

• response : -1 if failed, 1 if success

 $\textbf{Example:} \ \ HOST: 5000/login/username = name$ 

#### 2.8 admin login\*

Description: Login admin

• method : POST

• endpoint : /admin/login/username=<string:username>

 $\bullet\,$  parameters : username

 $\bullet\,$  response : -1 if failed, 1 if success

Example: HOST:5000/admin/login/username=name



# 2.9 remove\_user

Description: Remove a user

• method: POST

• endpoint : /admin/tools/remove user

• parameters: token, id, target

• response : 0 if no change was made. Returns 1 if change was made, Unauthorised or bad request, Wrong request method

Example: HOST:5000/admin/tools/remove user?target=userid&id=adminid&token=validJWT

#### 2.10 block user

Description: Block a user from trade

• method : POST

• endpoint : /admin/tools/block user from trade

• parameters : token, id, cycle, target

 $\bullet$  response : if cycle < 0 - You need a pos int!, On succ - id blocked for cycle cycles, Unauthorised, Wrong request method

**Example:** HOST:5000/admin/tools/block\_user\_from\_trade?target=1&cycle=10&id=adminid&token=validJWT

# 2.11 get market data

Description: Get market data

• method : GET

• endpoint : /data/get market data

• parameters : None

• response : json containing [INFO]

Example: HOST:5000/data/get market data

# 2.12 change buffert to market\*

Description: Change ratio of produced output to market

• method : POST

• endpoint : /change buffert/house hold=<int:id>&amount=<int:amount>&token=<string:token>

• parameters: token, id, amount

• response : if request is not legit - You cant do that, on succ - Sending amount to market, if not a lode - User not found or not alode to change buffert, Unauthorised, Wrong request method

 $\textbf{Example:}\ \ HOST: 5000/change\_buffert/house\_hold=1\&amount=100\&token=validJWT=100\&token=validJWT=100\&token=validJWT=100\&token=validJWT=100\&token=validJWT=100\&token=validJWT=100\&token=validJWT=100\&token=validJWT=100\&token=validJWT=100\&token=validJWT=100\&token=validJWT=100\&token=validJWT=100\&token=validJWT=100\&token=validJWT=100\&token=validJWT=100\&token=validJWT=100\&token=validJWT=100\&token=validJWT=100\&token=validJWT=100\&token=validJWT=100\&token=validJWT=100\&token=validJWT=100\&token=validJWT=100\&token=validJWT=100\&token=validJWT=100\&token=validJWT=100\&token=validJWT=100\&token=validJWT=100\&token=validJWT=100\&token=validJWT=100\&token=validJWT=100\&token=validJWT=100\&token=validJWT=100\&token=validJWT=100\&token=validJWT=100\&token=validJWT=100\&token=validJWT=100\&token=validJWT=100\&token=validJWT=100\&token=validJWT=100\&token=validJWT=100\&token=validJWT=100\&token=validJWT=100\&token=validJWT=100\&token=validJWT=100\&token=validJWT=100\&token=validJWT=100\&token=validJWT=100\&token=validJWT=100\&token=validJWT=100\&token=validJWT=100\&token=validJWT=100\&token=validJWT=100\&token=validJWT=100\&token=validJWT=100\&token=validJWT=100\&token=validJWT=100\&token=validJWT=100\&token=validJWT=100\&token=validJWT=100\&token=validJWT=100\&token=validJWT=100\&token=validJWT=100\&token=validJWT=100\&token=validJWT=100\&token=validJWT=100\&token=validJWT=100\&token=validJWT=100\&token=validJWT=100\&token=validJWT=100\&token=validJWT=100\&token=validJWT=100\&token=validJWT=100\&token=validJWT=100\&token=validJWT=100\&token=validJWT=100\&token=validJWT=100\&token=validJWT=100\&token=validJWT=100\&token=validJWT=100\&token=validJWT=100\&token=validJWT=100\&token=validJWT=100\&token=validJWT=100\&token=validJWT=100\&token=validJWT=100\&token=validJWT=100\&token=validJWT=100\&token=validJWT=100\&token=validJWT=100\&token=validJWT=100\&token=validJWT=100\&token=validJWT=100\&token=validJWT=100\&token=validJWT=100\&token=validJWT=100\&token=validJWT=100\&token=validJWT=100\&token=validJWT=100\&token=validJWT=100\&token=validJWT=validJWT=100\&token=validJWT=validJWT=validJWT=validJWT=validJWT=$ 

#### 2.13 uploader

Description: Upload a picture to a user or admin

• method : POST

• endpoint : /uploader

• parameters : type, token, id, file

• response : Picture successfully uploaded, No file part, No selected file, Unauthorised, Wrong method

**Example:** HOST:5000/uploader?type=admin&id=adminid&token=validJWT&data=data (Data is a Formdata containing the userid and the picture file. )



#### 2.14 admin view

Description: Get all user data if admin

• method: GET

• endpoint : /admin/tools/view

• parameters : token, id

• response : json containing all user data, Unauthorised, Wrong request method

Example: HOST:5000/admin/tools/view?token=validJWT&id=adminid

#### 2.15 get user pic

Description: Retrieves the file name of the users picture

• method : GET

• endpoint : /get user pic

• parameters: token, id

• response: Picture stored in database as base 64, Unauthorised, Wrong request method

Example: HOST:5000/get user pic?id=adminid&token=validJWT&type=admin

#### 2.16 change user info

Description: Admin can change a users cred

• method : POST

• endpoint : /admin/tools/change\_user\_info

• parameters : token, id, target\_id, user\_name, password, email, address, zipcode, prosumer, user\_pic, target\_row

• response: 1 if success, 0 if no change, Unauthorised or bad request, Wrong request method

 $\label{local_example: HOST:5000/admin/tools/change_user_info?token=validJWT $$ $$ $ id=adminid&target_id=1&target_row=email&email=ihavemail@gmail.com $$ $$$ 

#### 2.17 change market price

Description: Admin can change what the market price is.

• method : POST

• endpoint : /admin/tools/change market price

• parameters : token, amount, id

• response : Market price changed, Unauthorised, Wrong request method

Example: HOST:5000/admin/tools/change market price?market price=100&id=adminidtoken=validJWT

#### 2.18 admin change power ratio

Description: Changes how much of the power plants power should be sent to its buffer or the market.

• method : POST

• endpoint : /admin/tools/change power ratio

• parameters: token, target, id

• response : if < 0 - Must be positive, if plant not found - Powerplant not found, Unauthorised, Wrong request method

Example: HOST:5000/admin/tools/change power ratio?ratio=0.5&id=adminid&token=validJWT&target=1



# 2.19 admin view power plants

Description: Show information on power plants in the simulation.

 $\bullet$  method : GET

• endpoint : /admin/tools/view power plants

• parameters: token, id

• response: if success return json, Unauthorised, Wrong request method

Example: HOST:5000/admin/tools/view power plants?id=adminid&token=validJWT

# 2.20 admin send to market

Description: Sends a amount of the power plants buffer to the market.

• method: POST

• endpoint : /admin/tools/send to market

• parameters: token, id, amount

ullet response: if <0 - Must be posetive, if selling more then have - Cant sell more then curret content, on success - Sent power to market, if plant not found - Powerplant not found, Unauthorised, Wrong request method

Example: HOST:5000/admin/tools/send to market?target=1&id=adminid&token=validJWT&amount=1