

GreenSpaces Authorization Service Documentation

Richard W. Ekong

This application provides authorization to other GreenSpaces clients to access GreenSpaces resource through a GreenSpaces resource server. Green Spaces is an Application that will enable users recommend parks, fields and relevant recreational and communal places and in turn enable citizens search for facilities, post comments and review, view available events within these spaces.

Performing Authorization through Authorization Code Grant Type

cURL Request:

```
$ curl 'http://localhost:8080/oauth2/authorize?response_type=code&client_id=76e09d7a-1095-4b47-80c5-5f8bcba70f1d&scope=read&redirect_uri=https://localhost:1000&code_challenge=7VwNGtsKGYcg3ZvDSqr6BcF4E-iFKkmwGpIMiXZ6xrU&code_challenge_method=S256' -i -X GET
```

Httpie Request:

```
$ http GET 'http://localhost:8080/oauth2/authorize?response_type=code&client_id=76e09d7a-1095-4b47-80c5-5f8bcba70f1d&scope=read&redirect_uri=https://localhost:1000&code_challenge=7VwNGtsKGYcg3ZvDSqr6BcF4E-iFKkmwGpIMiXZ6xrU&code_challenge_method=S256'
```

Http Request:

```
GET /oauth2/authorize?response_type=code&client_id=76e09d7a-1095-4b47-80c5-5f8bcba70f1d&scope=read&redirect_uri=https://localhost:1000&code_challenge=7VwNGtsKGYcg3ZvDSqr6BcF4E-iFKkmwGpIMiXZ6xrU&code_challenge_method=S256 HTTP/1.1
Host: localhost:8080
```

Http Response:

```
HTTP/1.1 302 Found
X-Content-Type-Options: nosniff
X-XSS-Protection: 0
Cache-Control: no-cache, no-store, max-age=0, must-revalidate
Pragma: no-cache
Expires: 0
X-Frame-Options: DENY
Location: https://localhost:1000?code=412C-AHth9fSPw8z5GMy1BhUYZWISbN8BpTKj1s7V371-3zDiI6pkJPN_6wlgpdWHvbRJhYKWdYVDG-k16K-zQrQ7uGVSbmh20UbfKyxjAR8Mp2UvoL_FVfgNa-C2yhG
```

Query Parameters:

Parameter	Description
<code>response_type</code>	grant type of the client
<code>client_id</code>	id of the client
<code>scope</code>	scope of user data available to the client

Parameter	Description
<code>redirect_uri</code>	Uri that user will be directed to after successful login
<code>code_challenge</code>	Verifier Code or Proof Key for Code Exchange (PKCE) security enhancement provided by the client
<code>code_challenge_method</code>	Algorithm for generating the PKCE e.g SHA-256

Response Header:

Name	Description
<code>Location</code>	The Current URI containing the authorization code after a successful redirect operation

Retrieving Access Token from Authorization Server

cURL Request:

```
$ curl 'http://localhost:8080/oauth2/token?client_id=76e09d7a-1095-4b47-80c5-5f8bcb70f1d&redirect_uri=https://localhost:1000&grant_type=authorization_code&code=NiUvZD4S0M4SCTa-D0aZ_4pczLCaNi0DFVcZYUJM50xVLtYW0yTuegPM5yEWd3IjWcZEDdiHoxaXlJs-bz_Xjj7xS7887T3asgovUeQVB76_Y7Drfd0raN6SKQ1yeZw3&code_verifier=uLQHUrpx3VL3cIfVT41XmHqrEp6pdYIJa0-5hgvHN0I' -i -u '76e09d7a-1095-4b47-80c5-5f8bcb70f1d:Secret4Client01' -X POST \
-H 'Content-Type: application/x-www-form-urlencoded'
```

Httpie Request:

```
$ http --form --auth '76e09d7a-1095-4b47-80c5-5f8bcb70f1d:Secret4Client01' POST 'http://localhost:8080/oauth2/token?client_id=76e09d7a-1095-4b47-80c5-5f8bcb70f1d&redirect_uri=https://localhost:1000&grant_type=authorization_code&code=NiUvZD4S0M4SCTa-D0aZ_4pczLCaNi0DFVcZYUJM50xVLtYW0yTuegPM5yEWd3IjWcZEDdiHoxaXlJs-bz_Xjj7xS7887T3asgovUeQVB76_Y7Drfd0raN6SKQ1yeZw3&code_verifier=uLQHUrpx3VL3cIfVT41XmHqrEp6pdYIJa0-5hgvHN0I'
```

Http Request:

```
POST /oauth2/token?client_id=76e09d7a-1095-4b47-80c5-5f8bcb70f1d&redirect_uri=https://localhost:1000&grant_type=authorization_code&code=NiUvZD4S0M4SCTa-D0aZ_4pczLCaNi0DFVcZYUJM50xVLtYW0yTuegPM5yEWd3IjWcZEDdiHoxaXlJs-bz_Xjj7xS7887T3asgovUeQVB76_Y7Drfd0raN6SKQ1yeZw3&code_verifier=uLQHUrpx3VL3cIfVT41XmHqrEp6pdYIJa0-5hgvHN0I HTTP/1.1
Content-Type: application/x-www-form-urlencoded
Authorization: Basic
NzZlMDlkN2EtMTA5NS00YjQ3LTgwYzUtNWY4YmNiYTcwZjFkO1NlY3JldDRDbGllbnQwMQ==
Host: localhost:8080
```

Http Response:

```
HTTP/1.1 200 OK
Content-Type: application/json;charset=UTF-8
X-Content-Type-Options: nosniff
X-XSS-Protection: 0
Cache-Control: no-cache, no-store, max-age=0, must-revalidate
Pragma: no-cache
Expires: 0
X-Frame-Options: DENY
Content-Length: 729
```

```
{
  "access_token": "eyJraWQiOiI4ODg1NzAwNC0yYjViLTQyMjMtODlmMi1hMGRhNGI0Yzc1ZTYiLCJhbGciOiJIJSUzI1NiJ9.eyJzdWIiOiJhZG1pbkNcmVlbnNwYWNlcy5jb20iLCJhdWQiOiJjY2U1M2ZjNi01YjRkLTRmNjItYTlmZi0yN2IxYjgzN2EzMGIiLCJuYmYiOiJlM2ZjNTgyNzgsInNjb3BlIjpbInJlYWQiXSwiaXNzIjoiaHR0cDovL2xvY2FsaG9zdDo4MDgwIiwiaXhwIjoxNzE5MzU0NTc4LCJpYXQiOiJlM2ZjNTgyNzhsU2VhbnNS-VyglL4g30Va3LtEwYzUDCSAlxVDqYECFXavwwvyjc0-7bM5x_3yCRcLd5h0d-pCXaJDxv0e2ur_nc4Qn3gvyKehtvHRGgnGRx_mkj2yV2I29PSaAbxKe_V3xJ7H1fYYKkK8Fqdwfw3iEoPOBLLjXevB0_mPykyfwLZ8P9at7jQ6bZkkEJnQFlnaYKxZwRyjcCJHwyw3tSd_C_LHGwFqnMcnY5EVIEG0zuaHkJNG5YnMHeyRKfk-_RY4ohHpD7F4f81DPAkLP-o0frlRfCkoaE-a0b23a9-cy6DTCxDv4I5Dk1nJJw3Ccd8QNhhGiGAIS1KME_V1P-7YLEjA",
  "scope": "read",
  "token_type": "Bearer",
  "expires_in": 300
}
```

Query Parameters:

Parameter	Description
client_id	Id of the client
redirect_uri	The redirect URI registered for this client
grant_type	The grant type or oauth2.0 authentication flow
code	Authorization code from the authorization server
code_verifier	Random verifier for proofing the client is authorized to use the authorization code

Request Header:

Name	Description
Authorization	Basic Authentication through client id and client secret

Request Body:

Response Body:

```
{ "access_token": "eyJraWQiOiI4ODg1NzAwNC0yYjViLTQyMjMtODlmMi1hMGRhNGl0Yzc1ZTYiLCJhbGciOiJSUzI1NiJ9.eyJzdWIiOiJhZG1pbkBNcmVlbmNwYWNLcy5jb20iLCJhdWQiOiJjY2U1M2ZjNi01YjRkLTRmNmItYTlmZi0yN2IxYjgzN2EzMGIiLCJuYmYiOiJE3MTkzNTgyNzgsInNjb3BlIjpjbWlnbmF0eXNjaHR0cDovL2xvY2FsaG9zdDo4MDgwIiwiaXhwIjoxeHhwaWJoXzE5MzU4NTc4LCJpYXQiOiJE3MTkzNTgyNzh9.UBvxjNS-Vygl4g30Va3LtEwYzUDCSAlxVDqYECFXavwwvyjc0-7bM5x_3yCRcLd5h0d-pCXaJDxv0e2ur_nc4Qn3gvKehTVHRGgnGRx_mkj2yV2I29PSaAbxKe_V3xJ7HlfYYKKk8Fqdwwf3iEoPOBLljXevB0_mPykyfwlZ8P9at7jQ6bZkkEJnQFlNaYKxZWryjcCJHWyw3tSd_C_LHGwfqnMcny5EVIEG0zuaHkJNG5YnMHeyRKfk-_RY4ohHpD7F4f81DPakLP-o0frlRfCkoaE-aOb23a9-cy6DTcxDv4I5Dk1nJJw3Cd8QNhhGiGAIS1KME_V1P-7YLEJA", "scope": "read", "token_type": "Bearer", "expires_in": 300 }
```

Response Fields:

Path	Type	Description
access_token	class java.lang.String	Token supplied by Authorization server
scope	class java.lang.String	The action the client can perform upon user's detail with the access token
token_type	String	The type of token issued by the Authorization server e.g Bearer token
expires_in	Number	Expiry time of the access token

Creating a user

cURL Request:

```
$ curl 'http://localhost:8080/users?_csrf=bJ7glA-  
u9qD9MOedW1ljgLTivFknBwFfvztEqLDRTn0h1HhjX_zW9m3ILZLQBdSsanRX44HakWBCMGJyhghwzmnkL0XE4  
h5T' -i -X POST \  
  -H 'Content-Type: application/json;charset=UTF-8' \  
  -d '{  
    "id" : "b583b456-9300-4cbd-4bcd-199225f5d42c",  
    "username" : "user.test@mail.com",  
    "password" : "13Tm31n@16351t3001",  
    "roles" : [ {  
      "id" : 1,  
      "role" : "ADMIN",  
      "authorities" : [ {  
        "id" : 3,  
        "authority" : "execute"  
      }, {  
        "id" : 2,  
        "authority" : "write"  
      }, {  
        "id" : 1,  
        "authority" : "read"  
      } ]  
    } ],  
    "enabled" : true,  
    "accountNonLocked" : true,  
    "credentialsNonExpired" : true,  
    "accountNonExpired" : true  
  }'
```

Httpie Request:

```
$ echo '{  
  "id" : "b583b456-9300-4cbd-4bcd-199225f5d42c",  
  "username" : "user.test@mail.com",  
  "password" : "13Tm31n@16351t3001",  
  "roles" : [ {  
    "id" : 1,  
    "role" : "ADMIN",  
    "authorities" : [ {  
      "id" : 3,  
      "authority" : "execute"  
    }, {  
      "id" : 2,  
      "authority" : "write"  
    }, {  
      "id" : 1,  
      "authority" : "read"  
    } ]  
  } ],  
  "enabled" : true,  
  "accountNonLocked" : true,  
  "credentialsNonExpired" : true,  
  "accountNonExpired" : true  
'
```



```

        "id" : 1,
        "authority" : "read"
    } ]
} ],
"enabled" : true,
"accountNonLocked" : true,
"credentialsNonExpired" : true,
"accountNonExpired" : true
}' | http POST 'http://localhost:8080/users?_csrf=bJ7g1A-
u9qD9M0edW1ljgLTivFknBwFfvztEqLDRTn0h1HhjX_zW9m3ILZLQBdSsanRX44HakWBCMGJyhgwzhmnkL0XE4
h5T' \
    'Content-Type:application/json;charset=UTF-8'

```

Http Request:

```

POST /users?_csrf=bJ7g1A-
u9qD9M0edW1ljgLTivFknBwFfvztEqLDRTn0h1HhjX_zW9m3ILZLQBdSsanRX44HakWBCMGJyhgwzhmnkL0XE4
h5T HTTP/1.1
Content-Type: application/json;charset=UTF-8
Content-Length: 502
Host: localhost:8080

{
  "id" : "b583b456-9300-4cbd-4bcd-199225f5d42c",
  "username" : "user.test@mail.com",
  "password" : "13Tm31n@16351t3001",
  "roles" : [ {
    "id" : 1,
    "role" : "ADMIN",
    "authorities" : [ {
      "id" : 3,
      "authority" : "execute"
    }, {
      "id" : 2,
      "authority" : "write"
    }, {
      "id" : 1,
      "authority" : "read"
    } ]
  } ],
  "enabled" : true,
  "accountNonLocked" : true,
  "credentialsNonExpired" : true,
  "accountNonExpired" : true
}

```

```

HTTP/1.1 201 Created
Content-Type: application/json

```

```
X-Content-Type-Options: nosniff
X-XSS-Protection: 0
Cache-Control: no-cache, no-store, max-age=0, must-revalidate
Pragma: no-cache
Expires: 0
X-Frame-Options: DENY
Content-Length: 308
```

```
{
  "id": "b583b456-9300-4cbd-4bcd-199225f5d42c",
  "username": "user.test@mail.com",
  "roles": [
    {
      "id": 1,
      "role": "ADMIN",
      "authorities": [
        {
          "id": 3,
          "authority": "execute"
        },
        {
          "id": 2,
          "authority": "write"
        },
        {
          "id": 1,
          "authority": "read"
        }
      ]
    }
  ],
  "enabled": true,
  "accountNonLocked": true,
  "credentialsNonExpired": true,
  "accountNonExpired": true
}
```

Requests and Responses:

```
{
  "id" : "b583b456-9300-4cbd-4bcd-199225f5d42c",
  "username" : "user.test@mail.com",
  "password" : "13Tm31n@16351t3001",
  "roles" : [ {
    "id" : 1,
    "role" : "ADMIN",
    "authorities" : [ {
      "id" : 3,
      "authority" : "execute"
    }, {
      "id" : 2,
      "authority" : "write"
    }, {
      "id" : 1,
      "authority" : "read"
    } ]
  } ],
  "enabled" : true,
  "accountNonLocked" : true,
  "credentialsNonExpired" : true,
  "accountNonExpired" : true
}
```

Path	Type	Description
username	class java.lang.String	username of the user to be save
password	class java.lang.String	password of the user to save
roles	interface java.util.Set	roles of the user to be saved
roles[].id	class java.lang.Integer	role id of a single role within roles of the user to be saved

Path	Type	Description
roles[].role	class java.lang.String	role name of a single role within roles of a single role within roles of the user to be saved
roles[].authorities	interface java.util.Set	authorities within a single role of roles of the user to be saved
roles[].authorities[].id	class java.lang.Integer	id of a authority within a role of roles of the user to be saved
roles[].authorities[].authority	class java.lang.String	authority name of an authority within a role of roles of the user to be saved
enabled	class java.lang.Boolean	status describing if the user account is enabled
credentialsNonExpired	class java.lang.Boolean	status describing the validity of user's credentials
accountNonExpired	class java.lang.Boolean	Status describing user's account validity
accountNonLocked	class java.lang.Boolean	Status describing whether user's account is locked or unlocked

```
{
  "id": "b583b456-9300-4cbd-4bcd-199225f5d42c",
  "username": "user.test@mail.com",
  "roles": [
    {
      "id": 1,
      "role": "ADMIN",
      "authorities": [
        {
          "id": 3,
          "authority": "execute"
        },
        {
          "id": 2,
          "authority": "write"
        },
        {
          "id": 1,
          "authority": "read"
        }
      ]
    }
  ],
  "enabled": true,
  "accountNonLocked": true,
  "credentialsNonExpired": true,
  "accountNonExpired": true
}
```

Retrieving a user by id

cURL Request:

```
$ curl 'http://localhost:8080/users/b583b456-9300-4cbd-4bcd-199225f5d42c' -i -X GET \
-H 'Content-Type: application/json;charset=UTF-8'
```

Httpie Request:

```
$ http GET 'http://localhost:8080/users/b583b456-9300-4cbd-4bcd-199225f5d42c' \
'Content-Type:application/json;charset=UTF-8'
```

Http Request:

```
GET /users/b583b456-9300-4cbd-4bcd-199225f5d42c HTTP/1.1
Content-Type: application/json;charset=UTF-8
Host: localhost:8080
```

```
HTTP/1.1 200 OK
Content-Type: application/json
X-Content-Type-Options: nosniff
X-XSS-Protection: 0
Cache-Control: no-cache, no-store, max-age=0, must-revalidate
Pragma: no-cache
Expires: 0
X-Frame-Options: DENY
Content-Length: 308

{"id":"b583b456-9300-4cbd-4bcd-199225f5d42c","username":"user.test@mail.com","roles":[{"id":1,"role":"ADMIN","authorities":[{"id":3,"authority":"execute"},{"id":2,"authority":"write"},{"id":1,"authority":"read"}]}],"enabled":true,"accountNonLocked":true,"credentialsNonExpired":true,"accountNonExpired":true}
```

Request Parameters:

Table 1. /users/{id}

Parameter	Description
id	UUID of the user to retrieve

Requests and Responses:

```
{
  "id": "b583b456-9300-4cbd-4bcd-199225f5d42c",
  "username": "user.test@mail.com",
  "roles": [
    {
      "id": 1,
      "role": "ADMIN",
      "authorities": [
        {
          "id": 3,
          "authority": "execute"
        },
        {
          "id": 2,
          "authority": "write"
        },
        {
          "id": 1,
          "authority": "read"
        }
      ]
    }
  ],
  "enabled": true,
  "accountNonLocked": true,
  "credentialsNonExpired": true,
  "accountNonExpired": true
}
```

Path	Type	Description
id	String	UUID of the retrieved user
username	class java.lang.String	username of the user to be save
roles	interface java.util.Set	roles of the user to be saved
roles[].id	class java.lang.Integer	role id of a single role within roles of the user to be saved
roles[].role	class java.lang.String	role name of a single role within roles of a single role within roles of the user to be saved
roles[].authorities	interface java.util.Set	authorities within a single role of roles of the user to be saved
roles[].authorities[].id	class java.lang.Integer	id of a authority within a role of roles of the user to be saved
roles[].authorities[].authority	class java.lang.String	authority name of an authority within a role of roles of the user to be saved
enabled	class java.lang.Boolean	status describing if the user account is enabled
credentialsNonExpired	class java.lang.Boolean	status describing the validity of user's credentials
accountNonExpired	class java.lang.Boolean	Status describing user's account validity
accountNonLocked	class java.lang.Boolean	Status describing whether user's account is locked or unlocked

Retrieving a user's Role

cURL Request:

```
$ curl 'http://localhost:8080/users/b583b456-9300-4cbd-4bcd-199225f5d42c/roles/1' -i  
-X GET \  
-H 'Content-Type: application/json;charset=UTF-8'
```

Httpie Request:

```
$ http GET 'http://localhost:8080/users/b583b456-9300-4cbd-4bcd-199225f5d42c/roles/1'  
\  
'Content-Type:application/json;charset=UTF-8'
```

Http Request:

```
GET /users/b583b456-9300-4cbd-4bcd-199225f5d42c/roles/1 HTTP/1.1  
Content-Type: application/json;charset=UTF-8  
Host: localhost:8080
```

```
HTTP/1.1 200 OK  
Content-Type: application/json  
X-Content-Type-Options: nosniff  
X-XSS-Protection: 0  
Cache-Control: no-cache, no-store, max-age=0, must-revalidate  
Pragma: no-cache  
Expires: 0  
X-Frame-Options: DENY  
Content-Length: 127  
  
{  
  "id":1,  
  "role":"ADMIN",  
  "authorities":[  
    {"id":3,"authority":"execute"},  
    {"id":2,"authority":"write"},  
    {"id":1,"authority":"read"}  
  ]  
}
```

Request Parameters:

Table 2. `/users/{id}/roles/{roleId}`

Parameter	Description
<code>id</code>	UUID of the user with role to retrieve
<code>roleId</code>	id of role to retrieve

Requests and Responses:

```
{"id":1,"role":"ADMIN","authorities":[{"id":3,"authority":"execute"}, {"id":2,"authority":"write"}, {"id":1,"authority":"read"}]}
```

Path	Type	Description
id	class java.lang.Integer	id of a role
role	class java.lang.String	role name
authorities	interface java.util.Set	authorities within this role
authorities.[]id	class java.lang.Integer	id of an authority within a role of roles
authorities.[]authority	class java.lang.String	authority name of an authority within a role

Retrieving a user's Roles

cURL Request:

```
$ curl 'http://localhost:8080/users/b583b456-9300-4cbd-4bcd-199225f5d42c/roles' -i -X GET \
-H 'Content-Type: application/json;charset=UTF-8'
```

Httpie Request:

```
$ http GET 'http://localhost:8080/users/b583b456-9300-4cbd-4bcd-199225f5d42c/roles' \
'Content-Type:application/json;charset=UTF-8'
```

Http Request:

```
GET /users/b583b456-9300-4cbd-4bcd-199225f5d42c/roles HTTP/1.1
Content-Type: application/json;charset=UTF-8
Host: localhost:8080
```

```
HTTP/1.1 200 OK
Content-Type: application/json
X-Content-Type-Options: nosniff
X-XSS-Protection: 0
Cache-Control: no-cache, no-store, max-age=0, must-revalidate
Pragma: no-cache
Expires: 0
X-Frame-Options: DENY
Content-Length: 129

[{"id":1,"role":"ADMIN","authorities":[{"id":3,"authority":"execute"},{"id":2,"authority":"write"},{"id":1,"authority":"read"}]}
```

Request Parameters:

Table 3. /users/{id}/roles

Parameter	Description
id	UUID of the user to retrieve

Requests and Responses:

```
[{"id":1,"role":"ADMIN","authorities":[{"id":3,"authority":"execute"},{"id":2,"authority":"write"}]}
```



```
ty":"write"}, {"id":1, "authority":"read"}]]]
```

Path	Type	Description
<code>[].id</code>	<code>class java.lang.Integer</code>	id of a role within roles of the user
<code>[].role</code>	<code>class java.lang.String</code>	role name of role within roles of a user
<code>[].authorities</code>	<code>interface java.util.Set</code>	authorities within a single role of roles
<code>[].authorities[].id</code>	<code>class java.lang.Integer</code>	id of authority within a role of roles
<code>[].authorities[].authority</code>	<code>class java.lang.String</code>	authority name of an authority within a role of roles

Retrieving a User's Authority

cURL Request:

```
$ curl 'http://localhost:8080/users/b583b456-9300-4cbd-4bcd-199225f5d42c/roles/1/authorities/1' -i -X GET \
-H 'Content-Type: application/json;charset=UTF-8'
```

Httpie Request:

```
$ http GET 'http://localhost:8080/users/b583b456-9300-4cbd-4bcd-199225f5d42c/roles/1/authorities/1' \
'Content-Type:application/json;charset=UTF-8'
```

Http Request:

```
GET /users/b583b456-9300-4cbd-4bcd-199225f5d42c/roles/1/authorities/1 HTTP/1.1
Content-Type: application/json;charset=UTF-8
Host: localhost:8080
```

```
HTTP/1.1 200 OK
Content-Type: application/json
X-Content-Type-Options: nosniff
X-XSS-Protection: 0
Cache-Control: no-cache, no-store, max-age=0, must-revalidate
Pragma: no-cache
Expires: 0
X-Frame-Options: DENY
Content-Length: 27

{"id":1,"authority":"read"}
```

Request Parameters:

Table 4. `/users/{id}/roles/{roleId}/authorities/{authorityId}`

Parameter	Description
<code>id</code>	UUID of the user with authority to retrieve
<code>roleId</code>	id of role associated with the authority to be retrieved
<code>authorityId</code>	id of the authority to retrieve

Requests and Responses:

```
{"id":1,"authority":"read"}
```

Path	Type	Description
id	class java.lang.Integer	id of the authority to retrieve
authority	class java.lang.String	authority name of an authority to retrieve

Retrieving a User's Authorities

cURL Request:

```
$ curl 'http://localhost:8080/users/b583b456-9300-4cbd-4bcd-199225f5d42c/roles/authorities' -i -X GET \
-H 'Content-Type: application/json;charset=UTF-8'
```

Httpie Request:

```
$ http GET 'http://localhost:8080/users/b583b456-9300-4cbd-4bcd-199225f5d42c/roles/authorities' \
'Content-Type:application/json;charset=UTF-8'
```

Http Request:

```
GET /users/b583b456-9300-4cbd-4bcd-199225f5d42c/roles/authorities HTTP/1.1
Content-Type: application/json;charset=UTF-8
Host: localhost:8080
```

```
HTTP/1.1 200 OK
Content-Type: application/json
X-Content-Type-Options: nosniff
X-XSS-Protection: 0
Cache-Control: no-cache, no-store, max-age=0, must-revalidate
Pragma: no-cache
Expires: 0
X-Frame-Options: DENY
Content-Length: 89

[{"id":3,"authority":"execute"}, {"id":2,"authority":"write"}, {"id":1,"authority":"read"}]
```

Request Parameters:

Table 5. */users/{id}/roles/authorities*

Parameter	Description
<code>id</code>	id of the user associated with retrieved authorities

Requests and Responses:

```
[{"id":3,"authority":"execute"}, {"id":2,"authority":"write"}, {"id":1,"authority":"read"}]
```

Path	Type	Description
<code>[].id</code>	Number	id of an authority within list of authorities retrieved
<code>[].authority</code>	String	authority name of an authority within list of authorities retrieved

Retrieving all Users

cURL Request:

```
$ curl 'http://localhost:8080/users' -i -X GET \
-H 'Content-Type: application/json;charset=UTF-8'
```

Httpie Request:

```
$ http GET 'http://localhost:8080/users' \
'Content-Type:application/json;charset=UTF-8'
```

Http Request:

```
GET /users HTTP/1.1
Content-Type: application/json;charset=UTF-8
Host: localhost:8080
```

```
HTTP/1.1 200 OK
Content-Type: application/json
X-Content-Type-Options: nosniff
X-XSS-Protection: 0
Cache-Control: no-cache, no-store, max-age=0, must-revalidate
Pragma: no-cache
Expires: 0
X-Frame-Options: DENY
Content-Length: 310

[{"id":"b583b456-9300-4cbd-4bcd-199225f5d42c","username":"user.test@mail.com","roles":[{"id":1,"role":"ADMIN","authorities":[{"id":3,"authority":"execute"},{"id":2,"authority":"write"},{"id":1,"authority":"read"}]}],"enabled":true,"accountNonLocked":true,"credentialsNonExpired":true,"accountNonExpired":true}]
```

Requests and Responses:

```
[{"id":"b583b456-9300-4cbd-4bcd-199225f5d42c","username":"user.test@mail.com","roles":[{"id":1,"role":"ADMIN","authorities":[{"id":3,"authority":"execute"},{"id":2,"authority":"write"},{"id":1,"authority":"read"}]}],"enabled":true,"accountNonLocked":true,"credentialsNonExpired":true,"accountNonExpired":true}]
```

Path	Type	Description
[].id	String	UUID of the retrieved user
[].username	class java.lang.String	username of the user to be save
[].roles	interface java.util.Set	roles of the user to be saved
[].roles[].id	class java.lang.Integer	role id of a single role within roles of the user to be saved
[].roles[].role	class java.lang.String	role name of a single role within roles of a single role within roles of the user to be saved
[].roles[].authorities	interface java.util.Set	authorities within a single role of roles of the user to be saved
[].roles[].authorities[].id	class java.lang.Integer	id of a authority within a role of roles of the user to be saved
[].roles[].authorities[].authority	class java.lang.String	authority name of an authority within a role of roles of the user to be saved
[].enabled	class java.lang.Boolean	status describing if the user account is enabled
[].credentialsNonExpired	class java.lang.Boolean	status describing the validity of user's credentials
[].accountNonExpired	class java.lang.Boolean	Status describing user's account validity
[].accountNonLocked	class java.lang.Boolean	Status describing whether user's account is locked or unlocked

Updating a User (Adding Authorities to User)

cURL Request:

```
$ curl 'http://localhost:8080/users/b583b456-9300-4cbd-4bcd-199225f5d42c/roles/1/authorities?_csrf=nj38kU54vdi2ABxRNfFp-D4xkFtfCzLL-hHW8hE4zn524Tg5rwXI9HpA202bN3l1DdxdzQYFvTk5bVbmyyC0wXUJrxtD2FkA' -i -X PATCH \
-H 'Content-Type: application/json; charset=UTF-8' \
-d '[ {
  "id" : 2,
  "authority" : "update"
} ]'
```

Httpie Request:

```
$ echo '[ {
  "id" : 2,
  "authority" : "update"
} ]' | http PATCH 'http://localhost:8080/users/b583b456-9300-4cbd-4bcd-199225f5d42c/roles/1/authorities?_csrf=nj38kU54vdi2ABxRNfFp-D4xkFtfCzLL-hHW8hE4zn524Tg5rwXI9HpA202bN3l1DdxdzQYFvTk5bVbmyyC0wXUJrxtD2FkA' \
'Content-Type:application/json; charset=UTF-8'
```

Http Request:

```
PATCH /users/b583b456-9300-4cbd-4bcd-199225f5d42c/roles/1/authorities?_csrf=nj38kU54vdi2ABxRNfFp-D4xkFtfCzLL-hHW8hE4zn524Tg5rwXI9HpA202bN3l1DdxdzQYFvTk5bVbmyyC0wXUJrxtD2FkA HTTP/1.1
Content-Type: application/json; charset=UTF-8
Content-Length: 47
Host: localhost:8080

[ {
  "id" : 2,
  "authority" : "update"
} ]
```

```
HTTP/1.1 200 OK
X-Content-Type-Options: nosniff
X-XSS-Protection: 0
Cache-Control: no-cache, no-store, max-age=0, must-revalidate
Pragma: no-cache
Expires: 0
X-Frame-Options: DENY
```


Request Parameters:

Table 6. `/users/{id}/roles/{roleId}/authorities`

Parameter	Description
<code>id</code>	UUID of the user adding authorities
<code>roleId</code>	id of the role to add the authorities

Requests and Responses:

```
[ {  
  "id" : 2,  
  "authority" : "update"  
} ]
```

Path	Type	Description
<code>[].authority</code>	<code>String</code>	authority name of authority within authorities to add

Updating a User (Adding Roles to User)

cURL Request:

```
$ curl 'http://localhost:8080/users/b583b456-9300-4cbd-4bcd-199225f5d42c/roles?_csrf=tBZRHLLak1k6Hb7eQi87ky43i37Zeo2LajitQf1hYUAS2rX_giBjKtHi8mEXe4_pdwIPpUpUpka4H06mUlmYc84CU3YkuITG' -i -X PATCH \
-H 'Content-Type: application/json;charset=UTF-8' \
-d '[ {
  "id" : 2,
  "role" : "USER",
  "authorities" : null
} ]'
```

Httpie Request:

```
$ echo '[ {
  "id" : 2,
  "role" : "USER",
  "authorities" : null
} ]' | http PATCH 'http://localhost:8080/users/b583b456-9300-4cbd-4bcd-199225f5d42c/roles?_csrf=tBZRHLLak1k6Hb7eQi87ky43i37Zeo2LajitQf1hYUAS2rX_giBjKtHi8mEXe4_pdwIPpUpUpka4H06mUlmYc84CU3YkuITG' \
'Content-Type:application/json;charset=UTF-8'
```

Http Request:

```
PATCH /users/b583b456-9300-4cbd-4bcd-199225f5d42c/roles?_csrf=tBZRHLLak1k6Hb7eQi87ky43i37Zeo2LajitQf1hYUAS2rX_giBjKtHi8mEXe4_pdwIPpUpUpka4H06mUlmYc84CU3YkuITG HTTP/1.1
Content-Type: application/json;charset=UTF-8
Content-Length: 65
Host: localhost:8080

[ {
  "id" : 2,
  "role" : "USER",
  "authorities" : null
} ]
```

```
HTTP/1.1 200 OK
X-Content-Type-Options: nosniff
X-XSS-Protection: 0
Cache-Control: no-cache, no-store, max-age=0, must-revalidate
Pragma: no-cache
Expires: 0
```

X-Frame-Options: DENY

Request Parameters:

Table 7. /users/{id}/roles

Parameter	Description
<code>id</code>	UUID of the user with roles to be retrieved

Requests and Responses:

```
[ {  
  "id" : 2,  
  "role" : "USER",  
  "authorities" : null  
} ]
```

Updating a User's account status

cURL Request:

```
$ curl 'http://localhost:8080/users/accounts/b583b456-9300-4cbd-4bcd-199225f5d42c?_csrf=msYQuHhBciXcnniaTFNysimVajiIA149dxbVxShRZ1SuLQZ3-fQnjhx0RRzxqxr-fn5GgR6hR1m_MmoQQHPtox11AW2XGzNF' -i -X PATCH \
-H 'Content-Type: application/json;charset=UTF-8' \
-d '{
  "id" : null,
  "username" : "user.test@mail.com",
  "password" : null,
  "roles" : null,
  "enabled" : true,
  "accountNonLocked" : true,
  "credentialsNonExpired" : true,
  "accountNonExpired" : true
}'
```

Httpie Request:

```
$ echo '{
  "id" : null,
  "username" : "user.test@mail.com",
  "password" : null,
  "roles" : null,
  "enabled" : true,
  "accountNonLocked" : true,
  "credentialsNonExpired" : true,
  "accountNonExpired" : true
}' | http PATCH 'http://localhost:8080/users/accounts/b583b456-9300-4cbd-4bcd-199225f5d42c?_csrf=msYQuHhBciXcnniaTFNysimVajiIA149dxbVxShRZ1SuLQZ3-fQnjhx0RRzxqxr-fn5GgR6hR1m_MmoQQHPtox11AW2XGzNF' \
  'Content-Type:application/json;charset=UTF-8'
```

Http Request:

```
PATCH /users/accounts/b583b456-9300-4cbd-4bcd-199225f5d42c?_csrf=msYQuHhBciXcnniaTFNysimVajiIA149dxbVxShRZ1SuLQZ3-fQnjhx0RRzxqxr-fn5GgR6hR1m_MmoQQHPtox11AW2XGzNF HTTP/1.1
Content-Type: application/json;charset=UTF-8
Content-Length: 215
Host: localhost:8080

{
  "id" : null,
  "username" : "user.test@mail.com",
```

```
"password" : null,  
"roles" : null,  
"enabled" : true,  
"accountNonLocked" : true,  
"credentialsNonExpired" : true,  
"accountNonExpired" : true  
}
```

```
HTTP/1.1 200 OK  
X-Content-Type-Options: nosniff  
X-XSS-Protection: 0  
Cache-Control: no-cache, no-store, max-age=0, must-revalidate  
Pragma: no-cache  
Expires: 0  
X-Frame-Options: DENY
```

Request Parameters:

Table 8. /users/accounts/{id}

Parameter	Description
id	Id of the user account status to update

Requests and Responses:

```
{  
  "id" : null,  
  "username" : "user.test@mail.com",  
  "password" : null,  
  "roles" : null,  
  "enabled" : true,  
  "accountNonLocked" : true,  
  "credentialsNonExpired" : true,  
  "accountNonExpired" : true  
}
```

Updating a User's Password

cURL Request:

```
$ curl 'http://localhost:8080/users/b583b456-9300-4cbd-4bcd-199225f5d42c/accounts/password-reset?_csrf=ApmB7tFQ2lj89oJQjoLvT8-_q8pm97anfZmBsLOhCBgF78NLMv2x2bJn7GzRx7dpvq_bLfyIhvIFwtCKTf-2g4KVASAz3vR-' -i -X PATCH \
-H 'Content-Type: application/json; charset=UTF-8' \
-d '{
  "id" : null,
  "username" : "user.test@mail.com",
  "password" : "P@55w07d4t35t",
  "roles" : null,
  "enabled" : false,
  "accountNonLocked" : false,
  "credentialsNonExpired" : false,
  "accountNonExpired" : false
}'
```

Httpie Request:

```
$ echo '{
  "id" : null,
  "username" : "user.test@mail.com",
  "password" : "P@55w07d4t35t",
  "roles" : null,
  "enabled" : false,
  "accountNonLocked" : false,
  "credentialsNonExpired" : false,
  "accountNonExpired" : false
}' | http PATCH 'http://localhost:8080/users/b583b456-9300-4cbd-4bcd-199225f5d42c/accounts/password-reset?_csrf=ApmB7tFQ2lj89oJQjoLvT8-_q8pm97anfZmBsLOhCBgF78NLMv2x2bJn7GzRx7dpvq_bLfyIhvIFwtCKTf-2g4KVASAz3vR-' \
  'Content-Type:application/json; charset=UTF-8'
```

Http Request:

```
PATCH /users/b583b456-9300-4cbd-4bcd-199225f5d42c/accounts/password-reset?_csrf=ApmB7tFQ2lj89oJQjoLvT8-_q8pm97anfZmBsLOhCBgF78NLMv2x2bJn7GzRx7dpvq_bLfyIhvIFwtCKTf-2g4KVASAz3vR- HTTP/1.1
Content-Type: application/json; charset=UTF-8
Content-Length: 230
Host: localhost:8080

{
  "id" : null,
```

```
"username" : "user.test@mail.com",
"password" : "P@55w07d4t35t",
"roles" : null,
"enabled" : false,
"accountNonLocked" : false,
"credentialsNonExpired" : false,
"accountNonExpired" : false
}
```

```
HTTP/1.1 200 OK
X-Content-Type-Options: nosniff
X-XSS-Protection: 0
Cache-Control: no-cache, no-store, max-age=0, must-revalidate
Pragma: no-cache
Expires: 0
X-Frame-Options: DENY
```

Request Parameters:

Table 9. `/users/{id}/accounts/password-reset`

Parameter	Description
<code>id</code>	Id of the user with password to reset

Requests and Responses:

```
{
  "id" : null,
  "username" : "user.test@mail.com",
  "password" : "P@55w07d4t35t",
  "roles" : null,
  "enabled" : false,
  "accountNonLocked" : false,
  "credentialsNonExpired" : false,
  "accountNonExpired" : false
}
```

Path	Type	Description
<code>username</code>	<code>class java.lang.String</code>	username of the user to be save
<code>password</code>	<code>class java.lang.String</code>	password of the user to save

Deleting a User

cURL Request:

```
$ curl 'http://localhost:8080/users/b583b456-9300-4cbd-4bcd-199225f5d42c' -i -X DELETE \
-H 'Content-Type: application/json;charset=UTF-8'
```

Httpie Request:

```
$ http DELETE 'http://localhost:8080/users/b583b456-9300-4cbd-4bcd-199225f5d42c' \
'Content-Type:application/json;charset=UTF-8'
```

Http Request:

```
DELETE /users/b583b456-9300-4cbd-4bcd-199225f5d42c HTTP/1.1
Content-Type: application/json;charset=UTF-8
Host: localhost:8080
```

```
HTTP/1.1 200 OK
X-Content-Type-Options: nosniff
X-XSS-Protection: 0
Cache-Control: no-cache, no-store, max-age=0, must-revalidate
Pragma: no-cache
Expires: 0
X-Frame-Options: DENY
```

Request Parameters:

Table 10. /users/{id}

Parameter	Description
<code>id</code>	Id of the user to delete

Requests and Responses:

Creating a Client

cURL Request:

```
$ curl
'http://localhost:8080/clients?_csrf=QpzkTIHKtOPQ9SYD1YmqyNuCX5hzk5xc6VUz3bBwR4G-
pY0dJ6XXL7Kv19b9xkU34qSe_Om2cqEXo6xxj2QC5IgWJbDYkLes' -i -X POST \
-H 'Content-Type: application/json;charset=UTF-8' \
-d '{
  "id" : "001i",
  "clientId" : "001ci",
  "name" : "Client03",
  "secret" : "53cr3t50$9feW1t6m3",
  "authenticationMethods" : [ {
    "id" : 1,
    "method" : "client_secret_basic"
  } ],
  "grantTypes" : [ {
    "id" : 1,
    "grantType" : "authorization_code"
  } ],
  "redirectUris" : [ {
    "id" : 1,
    "uri" : "http://127.0.0.1:1000"
  } ],
  "scopes" : [ {
    "id" : 1,
    "scope" : "openid"
  } ],
  "tokenSettings" : {
    "id" : 1,
    "format" : "self-contained",
    "accessTokenTTL" : 30
  }
}'
```

Httpie Request:

```
$ echo '{
  "id" : "001i",
  "clientId" : "001ci",
  "name" : "Client03",
  "secret" : "53cr3t50$9feW1t6m3",
  "authenticationMethods" : [ {
    "id" : 1,
    "method" : "client_secret_basic"
  } ],
  "grantTypes" : [ {
```

```

    "id" : 1,
    "grantType" : "authorization_code"
  } ],
  "redirectUri" : [ {
    "id" : 1,
    "uri" : "http://127.0.0.1:1000"
  } ],
  "scopes" : [ {
    "id" : 1,
    "scope" : "openid"
  } ],
  "tokenSettings" : {
    "id" : 1,
    "format" : "self-contained",
    "accessTokenTTL" : 30
  }
}
}' | http POST
'http://localhost:8080/clients?_csrf=QpzkTIHKtOPQ9SYD1YmqyNuCX5hzk5xc6VUz3bBwR4G-
pY0dJ6XXL7Kv19b9xkU34qSe_0m2cqEXo6xxj2QC5IgWJbDYkLes' \
'Content-Type:application/json;charset=UTF-8'

```

Http Request:

```

POST /clients?_csrf=QpzkTIHKtOPQ9SYD1YmqyNuCX5hzk5xc6VUz3bBwR4G-
pY0dJ6XXL7Kv19b9xkU34qSe_0m2cqEXo6xxj2QC5IgWJbDYkLes HTTP/1.1
Content-Type: application/json;charset=UTF-8
Content-Length: 539
Host: localhost:8080

{
  "id" : "001i",
  "clientId" : "001ci",
  "name" : "Client03",
  "secret" : "53cr3t50$9feW1t6m3",
  "authenticationMethods" : [ {
    "id" : 1,
    "method" : "client_secret_basic"
  } ],
  "grantTypes" : [ {
    "id" : 1,
    "grantType" : "authorization_code"
  } ],
  "redirectUri" : [ {
    "id" : 1,
    "uri" : "http://127.0.0.1:1000"
  } ],
  "scopes" : [ {
    "id" : 1,
    "scope" : "openid"
  } ],
}

```

```

"tokenSettings" : {
  "id" : 1,
  "format" : "self-contained",
  "accessTokenTTL" : 30
}
}

```

```

HTTP/1.1 201 Created
Content-Type: application/json
X-Content-Type-Options: nosniff
X-XSS-Protection: 0
Cache-Control: no-cache, no-store, max-age=0, must-revalidate
Pragma: no-cache
Expires: 0
X-Frame-Options: DENY
Content-Length: 337

```

```

{"id":"001i","clientId":"001ci","name":"Client03","authenticationMethods":[{"id":1,"method":"client_secret_basic"}],"grantTypes":[{"id":1,"grantType":"authorization_code"}],"redirectUri":[{"id":1,"uri":"http://127.0.0.1:1000"}],"scopes":[{"id":1,"scope":"openid"}],"tokenSettings":{"id":1,"format":"self-contained","accessTokenTTL":30}}

```

Requests and Responses:

```

{
  "id" : "001i",
  "clientId" : "001ci",
  "name" : "Client03",
  "secret" : "53cr3t50$9feW1t6m3",
  "authenticationMethods" : [ {
    "id" : 1,
    "method" : "client_secret_basic"
  } ],
  "grantTypes" : [ {
    "id" : 1,
    "grantType" : "authorization_code"
  } ],
  "redirectUri" : [ {
    "id" : 1,
    "uri" : "http://127.0.0.1:1000"
  } ],
  "scopes" : [ {
    "id" : 1,
    "scope" : "openid"
  } ],
  "tokenSettings" : {
    "id" : 1,
    "format" : "self-contained",

```

```

    "accessTokenTTL" : 30
  }
}

```

Path	Type	Description
name	class java.lang.String	Desired client name
secret	class java.lang.String	Desired client secret
authenticationMethods	interface java.util.Set	Authentication Methods of the client
authenticationMethods[].method	class java.lang.String	Authentication method name of an authentication method of the client
grantTypes	interface java.util.Set	Desired list/set of auth2.0 authentication grant types
grantTypes[].grantType	class java.lang.String	authorization grant type name of a grant type within a list of grant types
redirectUri	class java.lang.String	Desired list/set of redirect URIs
redirectUri[].uri	class java.lang.String	redirect uri within a list of redirect uris
scopes	interface java.util.Set	Desired oauth2.0 authentication scopes
scopes[].scope	class java.lang.String	Scope's name within a list of scopes
tokenSettings	class com.daveace.greenspaces.tokensettings.TokenSettings	Desired oauth2.0 token settings
tokenSettings.format	String	Format of the token from the authorization server
tokenSettings.accessTokenTTL	Number	Time to live or expiry time of an access token

```

{"id":"001i","clientId":"001ci","name":"Client03","authenticationMethods":[{"id":1,"method":"client_secret_basic"}],"grantTypes":[{"id":1,"grantType":"authorization_code"}],"redirectUri":[{"id":1,"uri":"http://127.0.0.1:1000"}],"scopes":[{"id":1,"scope":"openid"}],"tokenSettings":{"id":1,"format":"self-contained","accessTokenTTL":30}}

```

Path	Type	Description
id	String	id of created client
clientId	String	client id of created client

Path	Type	Description
name	String	name of created client
authenticationMethods	interface java.util.Set	Authentication Methods of the client
authenticationMethods[].method	class java.lang.String	Authentication method name of an authentication method of the client
grantTypes	Array	Grant types of the created clients
grantTypes[].grantType	class java.lang.String	authorization grant type name of a grant type within a list of grant types
redirectUris	Array	Redirect URIs of the created client
redirectUris[].uri	class java.lang.String	redirect uri within a list of redirect uris
scopes	Array	Oauth2.0 Scopes of the create client
scopes[].scope	class java.lang.String	Scope's name within a list of scopes
tokenSettings	Object	Token Settings of the create client
tokenSettings.format	String	Format of the token from the authorization server
tokenSettings.accessTokenTTL	Number	Time to live or expiry time of an access token

Retrieving a Client

cURL Request:

```
$ curl 'http://localhost:8080/clients/001i' -i -X GET \
-H 'Content-Type: application/json;charset=UTF-8'
```

Httpie Request:

```
$ http GET 'http://localhost:8080/clients/001i' \
'Content-Type: application/json;charset=UTF-8'
```

Http Request:

```
GET /clients/001i HTTP/1.1
Content-Type: application/json;charset=UTF-8
Host: localhost:8080
```

```
HTTP/1.1 200 OK
Content-Type: application/json
X-Content-Type-Options: nosniff
X-XSS-Protection: 0
Cache-Control: no-cache, no-store, max-age=0, must-revalidate
Pragma: no-cache
Expires: 0
X-Frame-Options: DENY
Content-Length: 337
```

```
{"id":"001i","clientId":"001ci","name":"Client03","authenticationMethods":[{"id":1,"method":"client_secret_basic"}],"grantTypes":[{"id":1,"grantType":"authorization_code"}],
"redirectUris":[{"id":1,"uri":"http://127.0.0.1:1000"}],"scopes":[{"id":1,"scope":"openid"}],"tokenSettings":{"id":1,"format":"self-contained","accessTokenTTL":30}}
```

Request Parameters:

Table 11. /clients/{id}

Parameter	Description
id	UUID of client to retrieve

Requests and Responses:

```
{
  "id": "001i",
  "clientId": "001ci",
  "name": "Client03",
  "authenticationMethods": [
    {
      "id": 1,
      "method": "client_secret_basic"
    }
  ],
  "grantTypes": [
    {
      "id": 1,
      "grantType": "authorization_code"
    }
  ],
  "redirectUri": [
    {
      "id": 1,
      "uri": "http://127.0.0.1:1000"
    }
  ],
  "scopes": [
    {
      "id": 1,
      "scope": "openid"
    }
  ],
  "tokenSettings": {
    "id": 1,
    "format": "self-contained",
    "accessTokenTTL": 30
  }
}
```

Path	Type	Description
id	String	id of retrieved client
clientId	String	client id of retrieved client
name	String	name of retrieved client
authenticationMethods	interface java.util.Set	Authentication Methods of the retrieved client
authenticationMethods[].id	class java.lang.Integer	Id of an authentication method of the retrieved client
authenticationMethods[].method	class java.lang.String	Authentication method name of an authentication method in the retrieved client
grantTypes	Array	Grant types of the retrieved clients
grantTypes[].grantType	class java.lang.String	authorization grant type name of a grant type within a list of grant types
redirectUri	Array	Redirect URIs of the retrieved client
redirectUri[].uri	class java.lang.String	redirect uri within a list of redirect uris
scopes	Array	Oauth2.0 Scopes of the retrieved client
scopes[].scope	class java.lang.String	Scope's name within a list of scopes
tokenSettings	Object	Token Settings of the retrieved client
tokenSettings.id	Number	id of the token setting from the authorization server
tokenSettings.format	String	Format of the token from the authorization server
tokenSettings.accessTokenTTL	Number	Time to live or expiry time of an access token

Retrieving all Clients

cURL Request:

```
$ curl 'http://localhost:8080/clients' -i -X GET \
-H 'Content-Type: application/json;charset=UTF-8'
```

Httpie Request:

```
$ http GET 'http://localhost:8080/clients' \
'Content-Type: application/json;charset=UTF-8'
```

Http Request:

```
GET /clients HTTP/1.1
Content-Type: application/json;charset=UTF-8
Host: localhost:8080
```

```
HTTP/1.1 200 OK
Content-Type: application/json
X-Content-Type-Options: nosniff
X-XSS-Protection: 0
Cache-Control: no-cache, no-store, max-age=0, must-revalidate
Pragma: no-cache
Expires: 0
X-Frame-Options: DENY
Content-Length: 339
```

```
[{"id":"001i","clientId":"001ci","name":"Client03","authenticationMethods":[{"id":1,"method":"client_secret_basic"}],"grantTypes":[{"id":1,"grantType":"authorization_code"}],
"redirectUri":[{"id":1,"uri":"http://127.0.0.1:1000"}],"scopes":[{"id":1,"scope":"openid"}],"tokenSettings":{"id":1,"format":"self-contained","accessTokenTTL":30}}]
```

Requests and Responses:

```
[{"id":"001i","clientId":"001ci","name":"Client03","authenticationMethods":[{"id":1,"method":"client_secret_basic"}],"grantTypes":[{"id":1,"grantType":"authorization_code"}],
"redirectUri":[{"id":1,"uri":"http://127.0.0.1:1000"}],"scopes":[{"id":1,"scope":"openid"}],"tokenSettings":{"id":1,"format":"self-contained","accessTokenTTL":30}}]
```


Path	Type	Description
<code>[].id</code>	<code>class java.lang.Integer</code>	id of retrieved client within a list of clients
<code>[].clientId</code>	<code>class java.lang.String</code>	client id of a retrieved client within a list of clients
<code>[].name</code>	<code>class java.lang.String</code>	name of a retrieved client within a list of clients
<code>[].authenticationMethods</code>	<code>interface java.util.Set</code>	Authentication Methods of a retrieved client within a list of clients
<code>[].authenticationMethods[].id</code>	<code>class java.lang.Integer</code>	id of one of the authentication methods of a retrieved client within a list of clients
<code>[].authenticationMethods[].method</code>	<code>class java.lang.String</code>	One of the authentication methods' name of a retrieved client within a list of clients
<code>[].grantTypes</code>	<code>interface java.util.Set</code>	Grant types of a retrieved client within a list of clients
<code>[].grantTypes[].id</code>	<code>class java.lang.Integer</code>	id of a Grant type of the retrieved clients
<code>[].grantTypes[].grantType</code>	<code>class java.lang.String</code>	Grant type name of one of the retrieved clients
<code>[].redirectUris</code>	<code>interface java.util.Set</code>	Redirect URIs of a retrieved client within a list of clients
<code>[].redirectUris[].uri</code>	<code>class java.lang.String</code>	redirect uri within a list of redirect uris
<code>[].scopes</code>	<code>interface java.util.Set</code>	Oauth2.0 Scopes of a retrieved client within a list of clients
<code>[].scopes[].scope</code>	<code>class java.lang.String</code>	Scope's name within a list of scopes
<code>[].tokenSettings</code>	<code>class com.daveace.greenspaces.tokensettings.TokenSettings</code>	Token Settings of a retrieved client within a list of clients
<code>[].tokenSettings.id</code>	<code>class java.lang.Integer</code>	id of a token setting of a retrieved client within a list of clients
<code>[].tokenSettings.format</code>	<code>class java.lang.String</code>	Format of the token from the authorization server
<code>[].tokenSettings.accessTokenTTL</code>	<code>class java.lang.Integer</code>	Time to live or expiry time of an access token

Updating a Client

cURL Request:

```
$ curl
'http://localhost:8080/clients/001i?_csrf=uoszX_AiaIQNLnuuZazkNcaznjwaIAOt0DIvhfmnvZPw
lK0I27wLbpYXUbMgFkPPVoHQB_eLs14rFTaAtVdJsZ-RjKDApstp' -i -X PATCH \
-H 'Content-Type: application/json;charset=UTF-8' \
-d '{
  "id" : "001i",
  "clientId" : "001ci",
  "name" : "Client03",
  "secret" : "53cr3t50$9feW1t6m3",
  "authenticationMethods" : [ {
    "id" : 1,
    "method" : "client_secret_basic"
  } ],
  "grantTypes" : [ {
    "id" : 1,
    "grantType" : "authorization_code"
  } ],
  "redirectUris" : [ {
    "id" : 1,
    "uri" : "http://127.0.0.1:1000"
  } ],
  "scopes" : [ {
    "id" : 1,
    "scope" : "openid"
  } ],
  "tokenSettings" : {
    "id" : 1,
    "format" : "self-contained",
    "accessTokenTTL" : 30
  }
}'
```

Httpie Request:

```
$ echo '{
  "id" : "001i",
  "clientId" : "001ci",
  "name" : "Client03",
  "secret" : "53cr3t50$9feW1t6m3",
  "authenticationMethods" : [ {
    "id" : 1,
    "method" : "client_secret_basic"
  } ],
  "grantTypes" : [ {
```

```

    "id" : 1,
    "grantType" : "authorization_code"
  } ],
  "redirectUri" : [ {
    "id" : 1,
    "uri" : "http://127.0.0.1:1000"
  } ],
  "scopes" : [ {
    "id" : 1,
    "scope" : "openid"
  } ],
  "tokenSettings" : {
    "id" : 1,
    "format" : "self-contained",
    "accessTokenTTL" : 30
  }
}' | http PATCH
'http://localhost:8080/clients/001i?_csrf=uoszX_AiaIQNLnuuZazkNcaznjwaIAOt0DIvhfmnvZPw
lK0I27wLbpYXUbMgFkPPVoHQB_eLs14rFTaAtVdJsZ-RjKDApstp' \
'Content-Type:application/json;charset=UTF-8'

```

Http Request:

```

PATCH
/clients/001i?_csrf=uoszX_AiaIQNLnuuZazkNcaznjwaIAOt0DIvhfmnvZPwlK0I27wLbpYXUbMgFkPPVo
HQB_eLs14rFTaAtVdJsZ-RjKDApstp HTTP/1.1
Content-Type: application/json;charset=UTF-8
Content-Length: 539
Host: localhost:8080

{
  "id" : "001i",
  "clientId" : "001ci",
  "name" : "Client03",
  "secret" : "53cr3t50$9feW1t6m3",
  "authenticationMethods" : [ {
    "id" : 1,
    "method" : "client_secret_basic"
  } ],
  "grantTypes" : [ {
    "id" : 1,
    "grantType" : "authorization_code"
  } ],
  "redirectUri" : [ {
    "id" : 1,
    "uri" : "http://127.0.0.1:1000"
  } ],
  "scopes" : [ {
    "id" : 1,
    "scope" : "openid"
  } ]
}

```

```

    } ],
    "tokenSettings" : {
      "id" : 1,
      "format" : "self-contained",
      "accessTokenTTL" : 30
    }
  }
}

```

```

HTTP/1.1 200 OK
X-Content-Type-Options: nosniff
X-XSS-Protection: 0
Cache-Control: no-cache, no-store, max-age=0, must-revalidate
Pragma: no-cache
Expires: 0
X-Frame-Options: DENY

```

Request Parameters:

Table 12. /clients/{id}

Parameter	Description
id	UUID of the client to update

Requests and Responses:

```

{
  "id" : "001i",
  "clientId" : "001ci",
  "name" : "Client03",
  "secret" : "53cr3t50$9feW1t6m3",
  "authenticationMethods" : [ {
    "id" : 1,
    "method" : "client_secret_basic"
  } ],
  "grantTypes" : [ {
    "id" : 1,
    "grantType" : "authorization_code"
  } ],
  "redirectUris" : [ {
    "id" : 1,
    "uri" : "http://127.0.0.1:1000"
  } ],
  "scopes" : [ {
    "id" : 1,
    "scope" : "openid"
  } ],
  "tokenSettings" : {
    "id" : 1,
    "format" : "self-contained",

```

```

    "accessTokenTTL" : 30
  }
}

```

Path	Type	Description
name	class java.lang.String	Desired client name of client to be updated
secret	class java.lang.String	Desired client secret of client to be updated
authenticationMethods	interface java.util.Set	Desired oauth2.0 authentication methods of client to be updated
authenticationMethods[].method	class java.lang.String	Authentication method name of desired oauth2.0 authentication methods of client to be updated
grantTypes	interface java.util.Set	Desired list/set of auth2.0 authentication grant types of client to be updated
grantTypes[].grantType	String	Authorization grant type of the client to be updated
redirectUris	class java.lang.String	Desired list/set of redirect URIs of client to be updated
redirectUris[].uri	class java.lang.String	A redirect Uri of the client to be updated
scopes	interface java.util.Set	Desired oauth2.0 authentication scopes of client to be updated
scopes[].scope	class java.lang.String	A scope of the client to be updated
tokenSettings	class com.daveace.greenspaces.tokensettings.TokenSettings	Desired oauth2.0 token settings of client to be updated
tokenSettings.format	class java.lang.String	Format of the access token of the client to be updated
tokenSettings.accessTokenTTL	class java.lang.Integer	Expiry time of the access token of the client to be updated

Deleting a Client

cURL Request:

```
$ curl 'http://localhost:8080/clients/001i' -i -X DELETE \
-H 'Content-Type: application/json;charset=UTF-8'
```

Httpie Request:

```
$ http DELETE 'http://localhost:8080/clients/001i' \
'Content-Type:application/json;charset=UTF-8'
```

Http Request:

```
DELETE /clients/001i HTTP/1.1
Content-Type: application/json;charset=UTF-8
Host: localhost:8080
```

```
HTTP/1.1 200 OK
X-Content-Type-Options: nosniff
X-XSS-Protection: 0
Cache-Control: no-cache, no-store, max-age=0, must-revalidate
Pragma: no-cache
Expires: 0
X-Frame-Options: DENY
```

Request Parameters:

Table 13. /clients/{id}

Parameter	Description
<code>id</code>	UUID of client to delete

Requests and Responses: