**User Controller**

**Get All Users**

Retrieve all users.

* **URL:** /users
* **Method:** GET
* **Response:**

json

[

{

"id": 1,

"name": "Alice",

"version": 1

},

{

"id": 2,

"name": "Bob",

"version": 2

},

{

"id": 3,

"name": "Eve",

"version": 1

}

]

**Get User Roles for User and Unit**

List valid user roles for a given user ID and unit ID at a given timestamp.

* **URL:** /users/{userId}/units/{unitId}/user-roles
* **Method:** GET
* **Parameters:**
  + {userId} (Path Parameter): ID of the user
  + {unitId} (Path Parameter): ID of the unit
* **Response:**

json

[

{

"id": 1001,

"version": 1,

"userId": 1,

"unitId": 1,

"roleId": 11,

"validFrom": "2019-01-02T00:00:00",

"validTo": "2019-12-31T23:59:59"

},

{

"id": 1002,

"version": 2,

"userId": 1,

"unitId": 1,

"roleId": 104,

"validFrom": "2019-01-02T00:00:00",

"validTo": "2019-12-31T23:59:59"

},

{

"id": 1003,

"version": 1,

"userId": 1,

"unitId": 1,

"roleId": 105,

"validFrom": "2019-06-11T00:00:00",

"validTo": "2019-12-31T23:59:59"

}

]

**Create User**

Create a new user.

* **URL:** /users
* **Method:** POST
* **Request:**

json

{

"name": "Charlie"

}

* **Response:**

json

{

"id": 4,

"name": "Charlie",

"version": 1

}

**Update User**

Update an existing user.

* **URL:** /users/{userId}
* **Method:** PUT
* **Request:**

json

{

"id": 1,

"name": "Alice",

"version": 1

}

* **Response:**

json

{

"id": 1,

"name": "Alice",

"version": 2

}

**Delete User**

Delete an existing user.

* **URL:** /users/{userId}
* **Method:** DELETE
* **Response:** 204 No Content

**Unit Controller**

**Get All Units**

Retrieve all units.

* **URL:** /units
* **Method:** GET
* **Response:**

json

[

{

"id": 11,

"name": "Kreftregisteret",

"version": 2

},

{

"id": 12,

"name": "Akershus universitetssykehus HF",

"version": 1

},

{

"id": 13,

"name": "Sørlandet sykehus HF",

"version": 2

},

{

"id": 14,

"name": "Vestre Viken HF",

"version": 2

}

]

**Get Users with User Roles at Unit**

List all users with at least one user role at a given unit.

* **URL:** /units/{unitId}/users
* **Method:** GET
* **Parameters:**
  + {unitId} (Path Parameter): ID of the unit
* **Response:**

json

[

{

"id": 1,

"name": "Alice",

"userRoles": [

{

"id": 1001,

"version": 1,

"userId": 1,

"unitId": 1,

"roleId": 11,

"validFrom": "2019-01-02T00:00:00",

"validTo": "2019-12-31T23:59:59"

},

{

"id": 1002,

"version": 2,

"userId": 1,

"unitId": 1,

"roleId": 104,

"validFrom": "2019-01-02T00:00:00",

"validTo": "2019-12-31T23:59:59"

}

]

},

{

"id": 2,

"name": "Bob",

"userRoles": [

{

"id": 1004,

"version": 2,

"userId": 2,

"unitId": 12,

"roleId": 101,

"validFrom": "2020-01-28T00:00:00",

"validTo": null

},

{

"id": 1005,

"version": 1,

"userId": 2,

"unitId": 12,

"roleId": 105,

"validFrom": "2020-01-28T00:00:00",

"validTo": null

}

]

}

]

**Update Unit**

Update an existing unit.

* **URL:** /units/{unitId}
* **Method:** PUT
* **Request:**

json

{

"id": 11,

"name": "Kreftregisteret",

"version": 2

}

* **Response:**

json

{

"id": 11,

"name": "Kreftregisteret",

"version": 3

}

**Role Controller**

**Get All Roles**

Retrieve all roles.

* **URL:** /roles
* **Method:** GET
* **Response:**

json

[

{

"id": 101,

"name": "User administration",

"version": 1

},

{

"id": 102,

"name": "Endoscopist administration",

"version": 2

},

{

"id": 103,

"name": "Report colonoscopy capacity",

"version": 1

},

{

"id": 104,

"name": "Send invitations",

"version": 2

},

{

"id": 105,

"name": "View statistics",

"version": 1

}

]

**Update Role**

Update an existing role.

* **URL:** /roles/{roleId}
* **Method:** PUT
* **Request:**

json

{

"id": 101,

"name": "User administration",

"version": 1

}

* **Response:**

json

{

"id": 101,

"name": "User administration",

"version": 2

}

Below are the curl commands for each of the APIs based on the controllers described earlier. These commands are formatted to perform basic CRUD operations using JSON payloads.

**User Controller APIs**

1. **Get All Users**

curl -X GET http://localhost:8080/api/users

1. **Create a User**

curl -X POST http://localhost:8080/api/users \

-H "Content-Type: application/json" \

-d '{

"name": "Alice"

}'

1. **Update a User**

curl -X PUT http://localhost:8080/api/users/1 \

-H "Content-Type: application/json" \

-d '{

"id": 1,

"name": "Alice Updated",

"version": 1

}'

1. **Delete a User**

curl -X DELETE http://localhost:8080/api/users/1

**Unit Controller APIs**

1. **Get All Units**

curl -X GET http://localhost:8080/api/units

1. **Create a Unit**

curl -X POST http://localhost:8080/api/units \

-H "Content-Type: application/json" \

-d '{

"name": "Kreftregisteret"

}'

1. **Update a Unit**

curl -X PUT http://localhost:8080/api/units/11 \

-H "Content-Type: application/json" \

-d '{

"id": 11,

"name": "Kreftregisteret Updated",

"version": 2

}'

1. **Delete a Unit**

curl -X DELETE http://localhost:8080/api/units/11

**Role Controller APIs**

1. **Get All Roles**

curl -X GET http://localhost:8080/api/roles

1. **Create a Role**

curl -X POST http://localhost:8080/api/roles \

-H "Content-Type: application/json" \

-d '{

"name": "User administration"

}'

1. **Update a Role**

curl -X PUT http://localhost:8080/api/roles/101 \

-H "Content-Type: application/json" \

-d '{

"id": 101,

"name": "User administration Updated",

"version": 1

}'

1. **Delete a Role**

curl -X DELETE http://localhost:8080/api/roles/101

**UserRole Controller APIs**

1. **Get All UserRoles**

curl -X GET http://localhost:8080/api/userroles

1. **Create a UserRole**

curl -X POST http://localhost:8080/api/userroles \

-H "Content-Type: application/json" \

-d '{

"userId": 1,

"unitId": 11,

"roleId": 101,

"validFrom": "2023-01-01T00:00:00"

}'

1. **Update a UserRole**

curl -X PUT http://localhost:8080/api/userroles/1001 \

-H "Content-Type: application/json" \

-d '{

"id": 1001,

"userId": 1,

"unitId": 11,

"roleId": 101,

"validFrom": "2023-01-01T00:00:00",

"validTo": "2023-12-31T23:59:59",

"version": 1

}'

1. **Delete a UserRole**

curl -X DELETE http://localhost:8080/api/userroles/1001

1. **Fetch Valid User Roles**

curl --location 'http://localhost:8080/api/ userroles/valid?userId=1&unitId=11&timestamp=2022-02-01T00%3A00%3A00' \

--header 'Content-Type: application/json'