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## 1. Overview

Kypo Training API Reference Description.

## 1.1. Version information

Version: 1.0.0

## 1.2. Contact information

Contact: Pavel Seda

Contact Email: 441048@mail.muni.cz

## 1.3. URI scheme

Host: localhost:8080

BasePath:/kypo2-rest-training/api/v1

Schemes: HTTP, HTTPS

## **1.4. Tags**

• Endpoint for Groups

• Endpoint for Users

• Endpoint for roles

## 2. Resources

## 2.1. Endpoint For Groups

## 2.1.1. Create new group.

POST /kypo2-rest-training/api/v1/groups

## **Parameters**

Туре	Name	Description	Schema
Body	<b>body</b> required	Group to be created.	NewGroupDTO

HTTP Code	Description	Schema
200	Given group created.	GroupDTO

application/json

## **Produces**

application/json

## **Example HTTP request**

## Request path

```
/kypo2-rest-training/api/v1/groups
```

## **Request body**

```
"name" : "string",
  "description" : "string",
  "users" : [ {
      "id" : 0,
      "fullName" : "string",
      "login" : "string",
      "mail" : "string"
} ],
  "groupIdsOfImportedUsers" : [ 0 ]
}
```

## **Example HTTP response**

```
"id": 0,
    "name": "string",
    "description": "string",
    "roles": [ {
        "id": 0,
        "roleType": "string",
        "nameOfMicroservice": "string"
} ],
    "users": [ {
        "id": 0,
        "fullName": "string",
        "login": "string",
        "mail": "string"
} ],
    "source": "string",
    "canBeDeleted": true
}
```

## 2.1.2. Get groups.

```
GET /kypo2-rest-training/api/v1/groups
```

#### **Parameters**

Туре	Name	Description	Schema
Query	<b>fields</b> optional	Fields which should be returned in REST API response	string
Query	<b>page</b> optional	Results page you want to retrieve (0N)	integer
Query	size optional	Number of records per page.	integer
Query	<b>sort</b> optional	Sorting criteria in the format: property(,asc desc). Default sort order is ascending. Multiple sort criteria are supported.	< string > array(multi)
Body	<b>body</b> optional	Parameters for filtering the objects.	< string, < string > array > map

HTTP Code	Description	Schema
200	successful operation	object

### **Produces**

• application/json

## **Example HTTP request**

## Request path

```
/kypo2-rest-training/api/v1/groups
```

## **Request query**

```
{
    "fields" : "string",
    "page" : 0,
    "size" : 0,
    "sort" : "asc"
}
```

## **Request body**

```
{ }
```

## **Example HTTP response**

**Response 200** 

```
"object"
```

## 2.1.3. Updates input group.

```
PUT /kypo2-rest-training/api/v1/groups
```

### **Parameters**

Туре	Name	Description	Schema
Body	<b>body</b> required	Group to be updated.	UpdateGroupDTO

HTTP Code	Description	Schema
default	successful operation	No Content

• application/json

#### **Produces**

• application/json

#### **Example HTTP request**

### Request path

```
/kypo2-rest-training/api/v1/groups
```

### **Request body**

```
{
  "id" : 0,
  "name" : "string",
  "description" : "string"
}
```

2.1.4. Tries to delete groups with given ids and returns groups and statuses of their deletion. Statuses: 1) SUCCESS - group was deleted 2) HAS\_ROLE - group has at least one role 3) EXTERNAL\_VALID - group is from external source and was not marked as deleted 4) MICROSERVICE\_ERROR - some error occurred during deleting group in some microservice 5) ERROR\_MAIN\_GROUP - group cannot be deleted due to it is one of the main group for roles (ADMINISTRATOR, USER, GUEST) 6) ERROR - group could not be deleted, try it later 7) NOT\_FOUND - group could not be found

```
DELETE /kypo2-rest-training/api/v1/groups
```

#### **Parameters**

Туре	Name	Description	Schema
Body	<b>body</b> required	Ids of groups to be deleted.	< integer(int64) > array

HTTP Code	Description	Schema
		<
200	successful operation	GroupDeletionRes
		ponseDTO > array

• application/json

## **Produces**

• application/json

## **Example HTTP request**

## Request path

/kypo2-rest-training/api/v1/groups

## **Request body**

[ 0 ]

## **Example HTTP response**

## **Response 200**

"array"

## 2.1.5. Add users to group.

PUT /kypo2-rest-training/api/v1/groups/users

### **Parameters**

Type	Name	Description	Schema
Body	body	Ids of members to be added and ids of groups of	AddUsersToGroupD
Бойу	required	imported members to group.	TO

HTTP Code	Description	Schema
200	successful operation	GroupDTO

• application/json

### **Produces**

• application/json

## **Example HTTP request**

### Request path

```
/kypo2-rest-training/api/v1/groups/users
```

### **Request body**

```
{
   "groupId" : 0,
   "idsOfUsersToBeAdd" : [ 0 ],
   "idsOfGroupsOfImportedUsers" : [ 0 ]
}
```

## **Example HTTP response**

```
{
 "id" : 0,
 "name" : "string",
 "description" : "string",
 "roles" : [ {
   "id" : 0,
   "roleType" : "string",
   "nameOfMicroservice" : "string"
 } ],
 "users" : [ {
   "id" : 0,
   "fullName" : "string",
   "login" : "string",
   "mail" : "string"
 "source" : "string",
 "canBeDeleted" : true
}
```

# 2.1.6. Assign role with given role ID to group with given ID in chosen microservice

PUT /kypo2-rest-training/api/v1/groups/{groupId}/assign/{roleId}/in-microservices/{microserviceId}

#### **Parameters**

Type	Name	Description	Schema
Path	<b>groupId</b> required	groupId	integer(int64)
Path	microserviceI d required	microserviceId	integer(int64)
Path	roleId required	roleId	integer(int64)

## Responses

HTTP Code	Description	Schema
default	successful operation	No Content

## **Example HTTP request**

## Request path

/kypo2-rest-training/api/v1/groups/0/assign/0/in-microservices/0

# 2.1.7. Cancel role with given role ID to group with given ID in chosen microservice

PUT /kypo2-rest-training/api/v1/groups/{groupId}/remove/{roleId}/in-microservices/{microserviceId}

### **Parameters**

Type	Name	Description	Schema
Path	groupId required	groupId	integer(int64)
Path	microserviceI d required	microserviceId	integer(int64)

Туре	Name	Description	Schema
Path	roleId required	roleId	integer(int64)

## Responses

HTTP Code	Description	Schema
default	successful operation	No Content

## **Example HTTP request**

## Request path

/kypo2-rest-training/api/v1/groups/0/remove/0/in-microservices/0

## 2.1.8. Get group with given id

GET /kypo2-rest-training/api/v1/groups/{id}

## **Parameters**

Type	Name	Description	Schema
Path	<b>id</b> required	Id of group to be returned.	integer(int64)

## Responses

HTTP Code	Description	Schema
200	successful operation	GroupDTO

### **Produces**

• application/json

## **Example HTTP request**

## Request path

/kypo2-rest-training/api/v1/groups/0

## **Example HTTP response**

```
"id" : 0,
  "name" : "string",
  "description" : "string",
 "roles" : [ {
    "id" : 0,
    "roleType" : "string",
   "nameOfMicroservice" : "string"
 } ],
  "users" : [ {
    "id" : 0,
    "fullName" : "string",
    "login" : "string",
    "mail" : "string"
  "source": "string",
 "canBeDeleted" : true
}
```

2.1.9. Tries to delete group with given id and returns if it was successful. Statuses: 1) SUCCESS - group was deleted 2) HAS\_ROLE - group has at least one role 3) EXTERNAL\_VALID - group is from external source and was not marked as deleted 4) MICROSERVICE\_ERROR - some error occurred during deleting group in some microservice 5) ERROR\_MAIN\_GROUP - group cannot be deleted due to it is one of the main group for roles (ADMINISTRATOR, USER, GUEST)

```
DELETE /kypo2-rest-training/api/v1/groups/{id}
```

#### **Parameters**

Туре	Name	Description	Schema
Path	<b>id</b> required	Id of group to be deleted.	integer(int64)

HTTP Code	Description	Schema
200	successful operation	GroupDeletionRes ponseDTO

### **Produces**

• application/json

## **Example HTTP request**

## Request path

```
/kypo2-rest-training/api/v1/groups/0
```

## **Example HTTP response**

### **Response 200**

```
"id" : 0,
    "microserviceForGroupDeletionDTOs" : [ {
        "id" : 0,
        "name" : "string",
        "httpStatus" : "string",
        "responseMessage" : "string"
} ],
    "status" : "string"
}
```

## 2.1.10. Returns all roles of group with given id.

```
GET /kypo2-rest-training/api/v1/groups/{id}/roles
```

#### **Parameters**

Туре	Name	Description	Schema
Path	<b>id</b> required	id	integer(int64)

## Responses

HTTP Code	Description	Schema
200	successful operation	< RoleDTO > array

## **Example HTTP request**

/kypo2-rest-training/api/v1/groups/0/roles

## **Example HTTP response**

## **Response 200**

"array"

## 2.1.11. Remove users from input group.

PUT /kypo2-rest-training/api/v1/groups/{id}/users

#### **Parameters**

Type	Name	Description	Schema
Path	<b>id</b> required	Id of group to remove users.	integer(int64)
Body	<b>body</b> required	Ids of members to be removed from group.	< integer(int64) > array

## Responses

HTTP Code	Description	Schema
default	successful operation	No Content

#### **Consumes**

• application/json

## **Produces**

• application/json

## **Example HTTP request**

## Request path

/kypo2-rest-training/api/v1/groups/0/users

## **Request body**

[ 0 ]

## 2.2. Endpoint For Users

## 2.2.1. Gets all users.

GET /kypo2-rest-training/api/v1/users

### **Parameters**

Туре	Name	Description	Schema
Query	<b>fields</b> optional	Fields which should be returned in REST API response	string
Query	<b>page</b> optional	Results page you want to retrieve (0N)	integer
Query	<b>size</b> optional	Number of records per page.	integer
Query	<b>sort</b> optional	Sorting criteria in the format: property(,asc desc). Default sort order is ascending. Multiple sort criteria are supported.	< string > array(multi)
Body	<b>body</b> optional	Parameters for filtering the objects.	< string, < string > array > map

## Responses

HTTP Code	Description	Schema
200	successful operation	object

## **Produces**

• application/json

## **Example HTTP request**

## Request path

/kypo2-rest-training/api/v1/users

## **Request query**

```
{
    "fields" : "string",
    "page" : 0,
    "size" : 0,
    "sort" : "asc"
}
```

## **Request body**

```
{ }
```

## **Example HTTP response**

### Response 200

```
"object"
```

2.2.2. Tries to delete users with given ids and returns users and statuses of their deletion. Statuses: 1) SUCCESS - user was deleted 2) EXTERNAL\_VALID - user is from external source and was not marked as deleted 3) ERROR - user could not be deleted, try it later 4) NOT\_FOUND - user could not be found

```
DELETE /kypo2-rest-training/api/v1/users
```

#### **Parameters**

Туре	Name	Description	Schema
Body	<b>body</b> required	Ids of users to be deleted.	< integer(int64) > array

### Responses

HTTP Code	Description	Schema
200	successful operation	<ul><li>UserDeletionRespo nseDTO &gt; array</li></ul>

#### **Consumes**

• application/json

### **Produces**

• application/json

## **Example HTTP request**

## Request path

/kypo2-rest-training/api/v1/users

## **Request body**

[ 0 ]

## **Example HTTP response**

## **Response 200**

"array"

## 2.2.3. Returns details of user who is logged in

GET /kypo2-rest-training/api/v1/users/info

## Responses

HTTP Code	Description	Schema
200	successful operation	UserInfoDTO

## **Example HTTP request**

## Request path

/kypo2-rest-training/api/v1/users/info

## **Example HTTP response**

```
"id": 0,
    "fullName": "string",
    "login": "string",
    "mail": "string",
    "roles": [ {
        "id": 0,
        "roleType": "string",
        "nameOfMicroservice": "string"
    } ]
}
```

## 2.2.4. Gets all users except users in given group.

```
GET /kypo2-rest-training/api/v1/users/not-in-groups/{groupId}
```

### **Parameters**

Туре	Name	Description	Schema
Path	<b>groupId</b> required	Id of group whose users do not get.	integer(int64)
Query	<b>fields</b> optional	Fields which should be returned in REST API response	string
Query	<b>page</b> optional	Results page you want to retrieve (0N)	integer
Query	<b>size</b> optional	Number of records per page.	integer
Query	<b>sort</b> optional	Sorting criteria in the format: property(,asc desc). Default sort order is ascending. Multiple sort criteria are supported.	< string > array(multi)

## Responses

HTTP Code	Description	Schema
200	successful operation	object

### **Produces**

• application/json

## **Example HTTP request**

```
/kypo2-rest-training/api/v1/users/not-in-groups/0
```

## **Request query**

```
{
    "fields" : "string",
    "page" : 0,
    "size" : 0,
    "sort" : "asc"
}
```

## **Example HTTP response**

## **Response 200**

```
"object"
```

## 2.2.5. Gets user with given id.

```
GET /kypo2-rest-training/api/v1/users/{id}
```

### **Parameters**

Type	Name	Description	Schema
Path	<b>id</b> required	Id of user to be returned.	integer(int64)

## Responses

HTTP Code	Description	Schema
200	successful operation	UserDTO

### **Produces**

• application/json

## **Example HTTP request**

```
/kypo2-rest-training/api/v1/users/0
```

## **Example HTTP response**

#### Response 200

```
{
   "id" : 0,
   "fullName" : "string",
   "login" : "string",
   "mail" : "string",
   "roles" : [ {
      "id" : 0,
      "roleType" : "string",
      "nameOfMicroservice" : "string"
   } ]
}
```

2.2.6. Tries to delete user with given screen name and returns if it was successful. Statuses: 1) SUCCESS - user was deleted 2) EXTERNAL\_VALID - user is from external source and was not marked as deleted

```
DELETE /kypo2-rest-training/api/v1/users/{id}
```

#### **Parameters**

Type	Name	Description	Schema
Path	<b>id</b> required	Screen name of user to be deleted.	integer(int64)

## Responses

HTTP Code	Description	Schema
200	successful operation	UserDeletionRespo nseDTO

#### **Produces**

• application/json

## **Example HTTP request**

```
/kypo2-rest-training/api/v1/users/0
```

## **Example HTTP response**

### **Response 200**

```
{
    "user" : {
        "id" : 0,
        "fullName" : "string",
        "login" : "string",
        "roles" : [ {
            "id" : 0,
            "roleType" : "string",
            "nameOfMicroservice" : "string"
        } ]
    },
    "status" : "string"
}
```

## 2.2.7. Returns all roles of user with given id.

```
GET /kypo2-rest-training/api/v1/users/{id}/roles
```

### **Parameters**

Type	Name	Description	Schema
Path	<b>id</b> required	id	integer(int64)

### Responses

HTTP Code	Description	Schema
200	successful operation	< RoleDTO > array

## **Example HTTP request**

## Request path

```
/kypo2-rest-training/api/v1/users/0/roles
```

## **Example HTTP response**

```
"array"
```

## 2.3. Endpoint For Roles

## 2.3.1. Get all roles

```
GET /kypo2-rest-training/api/v1/roles
```

### **Parameters**

Туре	Name	Description	Schema
Query	<b>page</b> optional	Results page you want to retrieve (0N)	integer
Query	<b>size</b> optional	Number of records per page.	integer
Query	sort optional	Sorting criteria in the format: property(,asc desc). Default sort order is ascending. Multiple sort criteria are supported.	< string > array(multi)

## Responses

HTTP Code	Description	Schema
200	successful operation	object

## **Produces**

• application/json

## **Example HTTP request**

## Request path

```
/kypo2-rest-training/api/v1/roles
```

## Request query

```
{
    "page" : 0,
    "size" : 0,
    "sort" : "asc"
}
```

## **Example HTTP response**

### **Response 200**

```
"object"
```

## 2.3.2. Get role with given id

GET /kypo2-rest-training/api/v1/roles/{id}

### **Parameters**

Type	Name	Description	Schema
Path	<b>id</b> required	Id of role to be returned	integer(int64)

## Responses

HTTP Code	Description	Schema
200	successful operation	object

## **Produces**

• application/json

## **Example HTTP request**

## Request path

/kypo2-rest-training/api/v1/roles/0

## **Example HTTP response**

### **Response 200**

"object"

## 3. Definitions

## 3.1. AddUsersToGroupDTO

Name	Description	Schema
groupId optional	Example: 0	integer(int64)
idsOfGroupsO fImportedUse rs optional	Example: [ 0 ]	< integer(int64) > array
idsOfUsersToB eAdd optional	Example: [ 0 ]	< integer(int64) > array

## 3.2. GroupDTO

Name	Description	Schema
canBeDeleted optional	Example: true	boolean
description optional	Example: "string"	string
<b>id</b> optional	Example: 0	integer(int64)
<b>name</b> optional	Example: "string"	string
roles optional	Example: [ "RoleDTO" ]	< RoleDTO > array
source optional	Example: "string"	enum (INTERNAL, PERUN)
users optional	Example: [ "UserForGroupsDTO" ]	<ul><li>UserForGroupsDTO</li><li>array</li></ul>

## 3.3. GroupDeletionResponseDTO

Name	Description	Schema
<b>id</b> optional	Example: 0	integer(int64)
microserviceF orGroupDeleti onDTOs optional	<pre>Example: [ "MicroserviceForGroupDeletionDTO" ]</pre>	<pre> &lt;   MicroserviceForGro   upDeletionDTO &gt;   array</pre>

Name	Description	Schema
<b>status</b> optional	Example: "string"	enum (EXTERNAL_VALID, SUCCESS, ERROR, NOT_FOUND, MICROSERVICE_ERR OR, ERROR_MAIN_GROU P)

## ${\bf 3.4.\ Microservice For Group Deletion DTO}$

Name	Description	Schema
		enum (CONTINUE,
		SWITCHING_PROTO
		COLS, PROCESSING,
		CHECKPOINT, OK,
		CREATED,
		ACCEPTED,
		NON_AUTHORITATI
		VE_INFORMATION,
		NO_CONTENT,
		RESET_CONTENT,
		PARTIAL_CONTENT,
		MULTI_STATUS,
		ALREADY_REPORTE
		D, IM_USED,
		MULTIPLE_CHOICES,
		MOVED_PERMANEN
		TLY, FOUND,
		MOVED_TEMPORARI
		LY, SEE_OTHER,
		NOT_MODIFIED,
		USE_PROXY,
		TEMPORARY_REDIR
		ECT, PERMANENT_REDIR
		ECT, BAD_REQUEST,
		UNAUTHORIZED,
httpStatus	Example: "string"	PAYMENT_REQUIRE
optional	Enumple . Set thy	D, FORBIDDEN,
		NOT FOUND,
		METHOD_NOT_ALL
		OWED,
		NOT_ACCEPTABLE,
		PROXY_AUTHENTIC
		ATION_REQUIRED,
		REQUEST_TIMEOUT,
		CONFLICT, GONE,
		LENGTH_REQUIRED,
		PRECONDITION_FAI
		LED,
		PAYLOAD_TOO_LAR
		GE,
		REQUEST_ENTITY_T
		OO_LARGE,
		URI_TOO_LONG,
		REQUEST_URI_TOO_ LONG,
		UNSUPPORTED_MED
		IA_TYPE,
		REQUESTED_RANGE
		_NOT_SATISFIABLE,
		FXPECTATION FAIL
		EXPECTATION_FAIL ED, I_AM_A_TEAPOT,

Name	Description	Schema
<b>id</b> optional	Example: 0	integer(int64)
<b>name</b> optional	Example: "string"	string
responseMess age optional	Example: "string"	string

## 3.5. NewGroupDTO

Name	Description	Schema
<b>description</b> optional	Example: "string"	string
groupIdsOfIm portedUsers optional	Example: [ 0 ]	< integer(int64) > array
name optional	Example: "string"	string
users optional	Example: [ "UserForGroupsDTO" ]	<ul><li>UserForGroupsDTO</li><li>array</li></ul>

## 3.6. RoleDTO

Name	Description	Schema
<b>id</b> optional	Example: 0	integer(int64)
nameOfMicro service optional	Example: "string"	string
roleType optional	Example: "string"	string

## 3.7. UpdateGroupDTO

Name	Description	Schema
description optional	Example: "string"	string
<b>id</b> optional	Example: 0	integer(int64)
name optional	Example: "string"	string

## 3.8. UserDTO

Name	Description	Schema
<b>fullName</b> optional	Example: "string"	string
<b>id</b> optional	Example: 0	integer(int64)
<b>login</b> optional	Example: "string"	string
mail optional	Example: "string"	string
roles optional	Example: [ "RoleDTO" ]	< RoleDTO > array

## 3.9. UserDeletionResponseDTO

Name	Description	Schema
status optional	Example: "string"	enum (SUCCESS, EXTERNAL_VALID, ERROR, NOT_FOUND)
<b>user</b> optional	Example: "UserDTO"	UserDTO

## 3.10. UserForGroupsDTO

Name	Description	Schema
<b>fullName</b> optional	Example: "string"	string
<b>id</b> optional	Example: 0	integer(int64)
<b>login</b> optional	Example: "string"	string
mail optional	Example: "string"	string

## 3.11. UserInfoDTO

Name	Description	Schema
<b>fullName</b> optional	Example: "string"	string
<b>id</b> optional	Example: 0	integer(int64)

Name	Description	Schema
<b>login</b> optional	Example: "string"	string
mail optional	Example: "string"	string
roles optional	Example: [ "RoleDTO" ]	< RoleDTO > array