API @
Vaccine Microservice: API Spec

CS 391

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Oregon State University

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Change log

Version	Change	Date
1.0	Initial version.	October 18, 2022

Data Model

The app stores two kinds of entities in Datastore, Organizations and Requirements.

Organization

Property	Data Type	Notes
id	Integer	The unique id of the organization. Datastore automatically generates it. Don't add it yourself as a property of the entity.
name	String	Name of the organization.
initial_required	Bool	Whether or not initial round of vaccination is required.
num_boosters	Integer	The number of booster shots required by the organization.
requirements	Array	Array of requirement id's

Requirement

Property	Data Type	Notes
id	Integer	The id of the requirement. Datastore automatically generates it. Don't add it yourself as a property of the entity.
days_max	Integer	How long the organization considers the person immune after this vaccination.
days_min	Integer	How long the organization considers for immunity to take place after injection.
quantity	String	Number of shots needed for this requirement.
type	String	Initial vaccine or booster vaccine

Create an Organization

Allows you to create a new organization.

POST /organizations

Request

Path Parameters

None

Request Body

Required

Request Body Format

JSON

Request JSON Attributes

Name	Description	Required?
name	The name of the organization.	Yes
initial_required	Whether or not initial round of vaccination is required.	Yes
num_boosters	The number of booster shots required by the organization.	Yes

Request Body Example

```
{
  "name": "Wendy's",
  "initial_required": true,
  "num_boosters": 0,
}
```

Response

Response Body Format

JSON

Response Statuses

Outcome	Status Code	Notes
Success	201 Created	
Failure	400 Bad Request	If the request is missing any of the 3 required attributes, the organization must not be created, and 400 status code must be returned.

Response Examples

- Datastore will automatically generate an ID and store it with the entity being created. Your app must send back this value in the response body as shown in the example.

Success

```
Status: 201 Created
{
  "id": 5161561354,
  "name": "Wendy's",
  "initial_required": true,
  "num_boosters": 0,
```

```
    "self": "/organizations/5161561354"
}
```

Failure

```
Status: 400 Bad Request
{
"Error":  "The request object is missing at least one of the required attributes"
}
```

Get an Organization

Allows you to get an existing organization

GET /organizations/:organization_id

Request

Path Parameters

Name	Description
organization_id	ID of the organization

Request Body

None

Response

Response Body Format

JSON

Response Statuses

Outcome	Status Code	Notes
Success	200 OK	
Failure	404 Not Found	No organization with this organization ID exists

Response Examples

Success

```
Status: 200 OK

{
  "id": "5161561354",
  "name": "Wendy's",
  "initial_required": true,
  "num_boosters": 0,
  "requirements": [{
      "id": "5744430225031168",
      "owner": "organization/5161561354",
      "days_max": 365,
      "days_min": 14,
      "quantity": 2,
      "type": 1,
      "self": /requirements/5744430225031168"
}],
  "self": "/organizations/5161561354"
}
```

Failure

```
Status: 404 Not Found

{
"Error": "No organization with this organization ID exists"
}
```

List all Organizations

List all the organizations.

GET /organizations

Request

Path Parameters

None

Request Body

None

Response

Response Body Format

JSON

Response Statuses

Outcome	Status Code	Notes
Success	200 OK	

Response Examples

Success

Status: 200 OK

```
{
    "organizations": [{
        "id": "5161561354",
        "name": "Wendy's",
        "initial_required": true,
        "num_boosters": 0,
        "requirements": [{
            "id": "5744430225031168",
             "owner": "organization/5161561354",
            "days_max": 365,
            "days_min": 14,
            "quantity": 2,
            "type": 1,
            "self": /requirements/5744430225031168"
}],
        "self": "/organizations/5161561354"
    }]
}
```

Delete an Organization

Allows you to delete an organization. Note that if the organization currently has any requirements, deleting the organization removes the organization ID from requirement.

DELETE /organizations/:organization_id

Request

Path Parameters

Name	Description
organization_id	ID of the organization

Request Body

None

Response

No body

Response Body Format

Success: No body

Failure: JSON

Response Statuses

Outcome	Status Code	Notes
Success	204 No Content	
Failure	404 Not Found	No organization with this organization ID exists

Response Examples

Success

Status: 204 No Content

Failure

Status: 404 Not Found
 	
{
"Error": "No organization with this organization ID exists"
}

Create a Requirement

Allows you to create a new requirement.

POST /requirements

Request

Path Parameters

None

Request Body

Required

Request Body Format

JSON

Request JSON Attributes

Name	Description	Required?
days_max	Integer	How long the organization considers the person immune after this vaccination.
days_min	Integer	How long the organization considers for immunity to take place after injection.
quantity	String	Number of shots needed for this requirement.
type	String	Initial vaccine or booster vaccine

Request Body Example

```
{
  "days_max": 365,
  "days_min": 14,
  "quantity": 2,
  "type": 1,
}
```

Response

Response Body Format

JSON

Response Statuses

Outcome	Status Code	Notes
Success	201 Created	
Failure	400 Bad Request	If the request is missing required attributes, the requirement must not be created, and 400 status code must be returned.

Response Examples

- Datastore will automatically generate an ID and store it with the entity being created. This value will to be sent in the response body as shown in the example.

Success

Status: 201 Created

```
{
    "id": "5744430225031168",
    "organization": null,
    "days_max": 365,
    "days_min": 14,
    "quantity": 2,
    "type": 1,
    "self": "/requirements/5744430225031168"
}
```

Failure

Status: 400 Bad Request

```
{
"Error":  "The request object is missing the required number of attributes"
}
```

Get a Requirement

Allows you to get an existing requirement.

GET /requirements/:requirements_id

Request

Path Parameters

Name	Description
requirement_id	ID of the requirement

Request Body

None

Response

Response Body Format

JSON

Response Statuses

Outcome	Status Code	Notes
Success	200 OK	
Failure	404 Not Found	No requirement with this requirement_id exists

Response Examples

Success

```
Status: 200 OK

{
    "id": "5744430225031168",
    "owner": "organization/5161561354",
    "days_max": 365,
    "days_min": 14,
    "quantity": 2,
    "type": 1,
    "self": /requirements/5744430225031168"
}
```

Failure

```
Status: 404 Not Found

{
"Error":  "No requirement with this requirement ID exists"
}
```

List all Requirements

List all the slips.

GET /requirements

Request

Path Parameters

None

Request Body

None

Response

Response Body Format

JSON

Response Statuses

Outcome	Status Code	Notes
Success	200 OK	

Response Examples

Success

Status: 200 OK

```
{
    "requirements": [{
        "id": "5744430225031168",
        "owner": "organization/5161561354",
        "days_max": 365,
        "days_min": 14,
        "quantity": 2,
        "type": 1,
        "self": "/requirements/5744430225031168"
    }]
}
```

Delete a Requirement

Allows you to delete a requirement.

DELETE /requirements/:requirement_id

Request

Path Parameters

Name	Description
requirement_id	ID of the requirement

Request Body

None

Response

No body

Response Body Format

Success: No body

Failure: JSON

Response Statuses

Outcome	Status Code	Notes
Success	204 No Content	
Failure	404 Not Found	No requirement with this requirement ID exists

Response Examples

Success

Status: 204 No Content

Failure

```
Status: 404 Not Found

{
"Error":  "No requirement with this requirement ID exists"
}
```

Assign Requirement to an Organization

Organization has adopted requirement.

```
PUT /organizations/:organization_id/requirements/:requirement_id
```

Request

Path Parameters

Name	Description
organization_id	ID of the organization
requirement_id	ID of the requirement

Request Body

None

Note: Set Content-Length to 0 in your request when calling out to this endpoint.

Response

No body

Response Body Format

Success: No body

Failure: JSON

Response Statuses

Outcome	Status Code	Notes
Success	204 No Content	Succeeds only if an organization with this organization_id exists, a requirement exists with this requirement_id and the requirement is not associated with an organization.
Failure	403 Forbidden	The requirement is already set to another organization.
Failure	404 Not Found	The specified organization and/or requirement does not exist.

Response Examples

Success

```
Status: 204 No Content
```

Failure

```
Status: 403 Forbidden

{
"Error":  "The requirement is already set to another organization."
}
```

```
Status: 404 Not Found

{
"Error":  "The specified organization and/or requirement does not exist."
}
```

Remove Requirement from Organization

Requirement has been removed from Organization. Requirement no longer associated with organization.

DELETE /organizations/:organization_id/requirements/:requirement_id

Request

Path Parameters

Name	Description
organization_id	ID of the organization
requirement_id	ID of the requirement

Request Body

None

Response

No body

Response Body Format

Success: No body

Failure: JSON

Response Statuses

Outcome	Status Code	Notes
Success	204 No Content	Succeeds only if an organization exists with this organization_id, a requirement exists with this requirement_id and requirement is not requiremented on another organization
Failure	404 Not Found	No organization with this organization_id is at the requirement with this requirement_id. This could be because no organization with this organization_id exists, or because no requirement with requirement_id exists, or even if both organization_id and requirement_id are valid, the organization with this organization_id is not requiremented with this requirement.

Response Examples

Success

Status: 204 No Content

Failure

Status: 404 Not Found
{
"Error": "No organization with this organization_id is requiremented with the requirement with this requirement_id"
}

View All Requirements for an Organization

GET /organizations/:organization_id/requirements/

Request

Path Parameters

Name	Description
organization_id	ID of the organization

Request Body

None

Response

No body

Response Body Format

JSON

Response Statuses

Outcome	Status Code	Notes
Success	200 OK	

Response Examples

Success

```
Status: 200

{
    "requirements": [{
        "id": "5744430225031168",
        "owner": "organization/5161561354",
        "days_max": 365,
        "days_min": 14,
        "quantity": 2,
        "type": 1,
        "self": "/requirements/5744430225031168"
    }]
}
```