Gretel Rajamoney

10/25/2021

Assignment 4: Intermediate Rest API

Link: https://hw4-rajamong.wl.r.appspot.com/

Data Model

The app stores two kinds of entities in the Datastore, Boats and Loads.

Boats:

Property	Data Type	Notes
id	integer	The Datastore automatically generates this.
name	string	The name of the boat. (Titanic, Odyssey, etc.)
type	string	The type of the boat. (Sailing, Yatch, etc.)
length	integer	The length of the boat in feet.

Loads:

Property	Data Type	Notes
id	integer	The Datastore automatically generates this.
weight	integer	The weight of the load in tons.
content	string	The content of the load. (tennis balls, feathers, etc.)
delivery_date	date	The date the load will be delivered.

Create a Boat

Allows you to create a new boat.

POST /boats

Request

Path Parameters:

None

Request Body:

Required

Request Body Format:

JSON

Request JSON Attributes:

Name	Description
name	The name of the boat. (Titanic, Odyssey, etc.)
type	The type of the boat. (Sailing, Yatch, etc.)
length	The length of the boat in feet.

Request Body Example:

```
{
      "name":  "Odyssey",
      "type":  "Yatch",
      "length":  99
}
```

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 boat must not be created, and a 400 status code must be returned.

Response Examples:

Success:

```
Status: 201 Created

{
        "id":  123456754321234512,
        "name":  "Odyssey",
        "type":  "Yatch",
        "length":  99,
        "self":  "https://hw4-rajamong.wl.r.appspot.com/boats/123456754321234512
}
```

Failure:

```
Status: 400 Bad Request

{
        "error": "object is missing one or more of the required attributes"
}
```

View a Boat

Allows you to view an existing boat.

GET /boats/:boat_id

Request

Path Parameters:

Name	Description
boat_id	The ID of the boat.

Request Body:

None

Request Body Format:

JSON

Response Statuses:

Outcome	Status Code	Notes
Success	200 OK	
Failure	404 Not Found	No boat with this boat_id exists.

Response Examples:

Success:

```
Status: 200 OK

{
        "id":  123456754321234512,
        "name":  "Odyssey",
        "type":  "Yatch",
        "length":  99,
        "self":  "https://hw4-rajamong.wl.r.appspot.com/boats/123456754321234512
}
```

Failure:

```
Status: 404 Not Found
```

```
{
        "error": "no boat with this id exists"
}
```

View all Boats

Allows you to view all existing boats.

GET /boats

Request

Path Parameters:

None

Request Body:

None

Request Body Format:

JSON

Response Statuses:

Outcome	Status Code	Notes
Success	200 OK	

Response Examples:

Success:

```
Status: 200 OK

[
{
        "id":  123456754321234512,
        "name":  "Odyssey",
        "type":  "Yatch",
        "length":  99,
        "self":  "https://hw4-rajamong.wl.r.appspot.com/boats/123456754321234512
},
{
        "id":  765432345676543212,
        "name":  "Titanic",
        "type":  "Sailing",
        "length":  200,
        "self":  "https://hw4-rajamong.wl.r.appspot.com/boats/765432345676543212
```

```
},
{
        "id":  444678632234999,
        "name":  "Midnight Dream",
        "type":  "Fishing",
        "length":  350,
        "self":  "https://hw4-rajamong.wl.r.appspot.com/boats/444678632234999
}
]
```

Delete a Boat

Allows you to delete an existing boat.

```
GET /boats/:boat_id
```

Request

Path Parameters:

Name	Description
boat_id	The ID of the boat.

Request Body:

None

Request Body Format:

Success: No Body

Failure: JSON

Response Statuses:

Outcome	Status Code	Notes
Success	204 No Content	
Failure	404 Not Found	No boat with this boat_id exists.

Response Examples:

Success:

```
Status: 204 No Content
```

Failure:

```
Status: 404 Not Found

{
        "error": "no boat with this id exists"
}
```

Create a Load

Allows you to create a new load.

POST /loads

Request

Path Parameters:

None

Request Body:

Required

Request Body Format:

JSON

Request JSON Attributes:

Name	Description
weight	The weight of the load in tons.
content	The content of the loads. (tennis balls, feathers, etc.)
delivery_date	The date that the load will be delivered.

Request Body Example:

```
{
      "weight":  24,
      "content":  "tennis balls",
      "delivery_date":  "10/24/2021"
}
```

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 load must not be created, and a 400 status code must be returned.

Response Examples:

Success:

```
Status: 201 Created

{
        "carrier": null,
        "content":  "tennis balls",
        "delivery_date":  "10/24/2021",
        "id":  123456754321234512,
        "self":  "https://hw4-rajamong.wl.r.appspot.com/loads/123456754321234512",
        "weight": 24
}
```

Failure:

```
Status: 400 Bad Request

{
        "error": "object is missing one or more of the required attributes"
}
```

View a Load

Allows you to view an existing load.

GET /boats/:load_id

Request

Path Parameters:

Name	Description
load_id	The ID of the load.

Request Body:

None

Request Body Format:

JSON

Response Statuses:

Outcome	Status Code	Notes
Success	200 OK	
Failure	404 Not Found	No load with this id exists.

Response Examples:

Success:

Status: 200 OK

{
    "carrier": null,
    "content": "tennis balls",
    "delivery_date": "10/24/2021",
    "id": 123456754321234512,
    "self": "https://hw4-rajamong.wl.r.appspot.com/loads/123456754321234512",
    "weight": 24
}

Failure:

Status: 404 Not Found

```
{
        "error": "no load with this id exists"
}
```

View all Loads

Allows you to view all existing boats.

GET /loads

Request

Path Parameters:

None

Request Body:

None

Request Body Format:

JSON

Response Statuses:

Outcome	Status Code	Notes
Success	200 OK	

Response Examples:

Success:

```
Status: 200 OK

[
{
        "carrier": null,
        "content":  "tennis balls",
        "delivery_date":  "10/24/2021",
        "id":  123456754321234512,
        "self":  "https://hw4-rajamong.wl.r.appspot.com/loads/123456754321234512",
        "weight": 24
},
{
        "carrier": null,
        "content":  "feathers",
        "delivery_date":  "12/25/2016",
        "id":  2222333334444445,
```

```
                "self":  "https://hw4-rajamong.wl.r.appspot.com/loads/2222333334444445",
                "weight": 2
        },
        {

                "carrier": null,
                "content":  "trucks",
                "delivery_date":  "01/02/2003",
                "id":  9993334400421234,
                "self":  "https://hw4-rajamong.wl.r.appspot.com/loads/9993334400421234",
                "weight": 300

        }
        ]
```

Delete a Load

Allows you to delete an existing load.

```
DELETE /loads/:load_id
```

Request

Path Parameters:

Name	Description
load_id	The ID of the load.

Request Body:

None

Request Body Format:

Success: No Body

Failure: JSON

Response Statuses:

Outcome	Status Code	Notes
Success	204 No Content	
Failure	404 Not Found	No load with this load_id exists.

Response Examples:

Success:

```
Status: 204 No Content
```

Failure:

```
Status: 404 Not Found

{
        "error": "no load with this id exists"
}
```

Managing Loads

Allows you to assign loads to boats.

PUT /boats/:boat_id/loads/:load_id

Request

Path Parameters:

Name	Description
boat_id	The ID of the boat.
load_id	The ID of the load.

Request Body:

None

Request Body Format:

JSON

Response Statuses:

Outcome	Status Code	Notes
Success	204 No Content	Succeeds only if a boat exists with this boat_id, a load exists with this load_id.
Failure	403 Forbidden	The load has already been assigned to a boat.
Failure	404 Not Found	No boat with this boat_id exists. No load with this load_id exists.

Response Examples:

Success:

Status: 204 No Content

Failure:

Status: 403 Forbidden
 	
{
      "error": "this load was already assigned to boat"
}

```
Status: 404 Not Found

{
        "error": "no boat with this id exists"
}
```

```
Status: 404 Not Found

{
        "error": "no load with this id exists"
}
```

View all Loads for a Given Boat

Allows you to view all existing boats.

GET /boats/:specific_boat_id/loads

Request

Path Parameters:

Name	Description
specific_boat_id	The ID of the specified boat.

Request Body:

None

Request Body Format:

JSON

Response Statuses:

Outcome	Status Code	Notes
Success	200 OK	

Response Examples:

Success:

```
Status: 200 OK

[
{
        "carrier": null,
        "content":  "tennis balls",
        "delivery_date":  "10/24/2021",
        "id":  123456754321234512,
        "self":  "https://hw4-rajamong.wl.r.appspot.com/loads/123456754321234512",
        "weight": 24
},
{
        "carrier": null,
```

```
        "content": "feathers",
        "delivery_date": "12/25/2016",
        "id": 2222333334444445,
        "self": "https://hw4-rajamong.wl.r.appspot.com/loads/2222333334444445",
        "weight": 2
},
{

        "carrier": null,
        "content": "trucks",
        "delivery_date": "01/02/2003",
        "id": 9993334400421234,
        "self": "https://hw4-rajamong.wl.r.appspot.com/loads/9993334400421234",
        "weight": 300
}
]
```