

# Final Project: API Spec

CS 493: Cloud Application Development

Spring 2022

Oregon State University

Ren Demeis-Ortiz

Template Source: Assignment 3

Last Update: June 4. 12:45pm Eastern

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## API AND LOGIN URL

<https://final-project-cs493-api.uk.r.appspot.com>

Testing is enabled for the following email addresses: [cs493gta01@gmail.com](mailto:cs493gta01@gmail.com), [cs493gta02@gmail.com](mailto:cs493gta02@gmail.com), [cs493gta03@gmail.com](mailto:cs493gta03@gmail.com), [gangams@oregonstate.edu](mailto:gangams@oregonstate.edu), [kokatea@oregonstate.edu](mailto:kokatea@oregonstate.edu), [panditb@oregonstate.edu](mailto:panditb@oregonstate.edu). If others need to be added, please reach out to [demeisol@oregonstate.edu](mailto:demeisol@oregonstate.edu).

## Change log

Version	Change	Date
1.0	Initial version.	June 4, 2022

## Data Model

The app stores three kinds of entities in Datastore: Boats, Loads, and Users. The ***bolded and italicized*** attributes demonstrate the relationship to another entity.

### Boats

Property	Data Type	Notes
id	Integer	The id of the boat. Automatically assigned by Datastore
name	String	Name of the boat.
type	String	Type of the boat. E.g., Sailboat, Catamaran, etc.
length	Integer	The length of the boat in feet.
<b><i>owner</i></b>	String	id of the user that owns the boat. Automatically added based on Sub property of the JWT. Only one owner is permitted.

### Loads

Property	Data Type	Notes
id	Integer	The id of the load. Id is automatically assigned by Datastore.
volume	Integer	The number of the load.
item	Integer	Type of item contained in the load.
creation_date	String	Date that the load was created.
<b><i>carrier</i></b>	Dictionary	If the load is assigned to the boat, then it will be the boat id that boat and the self link. Otherwise null. Only one carrier is permitted.

### Users

Property	Data Type	Notes
id	Integer	The id of the user. Automatically added during after login based on Sub property of JWT.
first_name	String	First name of user. Automatically added based on google profile information.
last_name	String	Last name of user. Automatically added based on google profile information.
creation_date	String	Account creation date. Automatically added based date added.



## List all Users

List all the users.

GET /users
------------

### Request

#### Path Parameters

None

#### Request Header

Accept Header must include application/json as an acceptable MIME type option

### Request Body

None

### Response

#### Response Body Format

JSON

#### Response Statuses

Outcome	Status Code	Notes
Success	200 OK	
Failure	406 Not Acceptable	Accept MIME type must be JSON. 406 Status returned with JSON error message.

#### Response Examples

##### Success

Status: 200 OK
<pre>{   "users": [     {       "creation_date": "2022-06-03",       "first_name": "Lorraine",       "last_name": "Hansberry",       "id": "105475404214984304575",       "self": "http://127.0.0.1:8080/users/105475404214984304575"     },     {       "creation_date": "2022-06-03",       "first_name": "Pauli",       "last_name": "Murray",       "id": "111085852131838231825", </pre>

```
      "self": "http://127.0.0.1:8080/users/111085852131838231825"
    }
  ]
}
```

*Failure*

```
Status: 406 Not Acceptable
{"Error": "Accept type must be application/json"}
```

## Create a Boat

Allows you to create a new boat.

POST /boats
-------------

### Request

#### Path Parameters

None

#### Request Header

Accept Header include application/json as an acceptable MIME type option

Authorization Header must be set to "Bearer [valid\_jwt]"

#### Request Body

Required

#### Request Body Format

JSON

#### Request JSON Attributes

Name	Description	Required?
name	String. The name of the boat.	Yes
type	String. The type of the boat. E.g., Sailboat, Catamaran, etc.	Yes
length	Integer. Length of the boat in feet.	Yes

#### Request Body Example

```
{
  "name": "Odyssey1",
  "type": "Yacht",
  "length": 99
}
```

### Response

#### Response Body Format

JSON

#### Response Statuses

Outcome	Status Code	Notes
Success	201 Created	
Failure	400 Bad Request	Must have exactly the number of attributes listed in the request body example
Failure	401 Not Authorized	Must have a valid JWT. This response indicates an invalid or missing JWT.
Failure	406 Not Acceptable	Accept MIME type must be JSON. The boat is not created.

#### Response Examples

##### Success

Status: 201 Created
---------------------

```
{
  "id": 5750704903815168,
  "length": 99,
  "loads": [],
  "name": "Odyssey1",
  "owner": "111085852131838231825",
  "self": "http://127.0.0.1:8080/boats/5750704903815168",
  "type": "Yacht"
}
```

*Failure*

Status: 400 Bad Request

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

*Failure*

Status: 401 Not Authorized

```
{"Error": "Missing JWT"}
```

*Failure*

Status: 401 Not Authorized

```
{"Error": "Invalid or Expired JWT. Update token."}
```

*Failure*

Status: 406 Not Acceptable

```
{"Error": "Accept type must be application/json"}
```

## Get a Boat

Allows you to get an existing boat

GET /boats/:boat_id
---------------------

### Request

#### Path Parameters

Name	Description
boat_id	ID of the boat

#### Request Header

Accept Header must include application/json as an acceptable MIME type option

Authorization Header must be set to "Bearer [valid\_jwt]"

#### Request Body

None

### Response

#### Response Body Format

JSON

#### Response Statuses

Outcome	Status Code	Notes
Success	200 OK	
Failure	401 Not Authorized	Must have a valid JWT. This response indicates an invalid or missing JWT.
Failure	403 Forbidden	User must be the owner of the boat to view it
Failure	404 Not Found	No boat with this boat_id exists
Failure	406 Not Acceptable	Accept MIME type must be JSON or HTML. The boat is not created.

#### Response Examples

##### Success

Status: 200 OK
<pre>{   "length": 99,   "owner": "111085852131838231825",   "type": "Yacht",   "name": "Odyssey1",   "id": 5750704903815168,   "self": "http://127.0.0.1:8080/boats/5750704903815168",   "loads": [] }</pre>

##### Failure

Status: 401 Not Authorized
----------------------------



```
{"Error": "Missing JWT"}
```

*Failure*

Status: 401 Not Authorized

```
{"Error": "Invalid or Expired JWT. Update token."}
```

*Failure*

Status: 403 Forbidden

```
{"Error": "Protected resources can only be viewed by owner"}
```

*Failure*

Status: 404 Not Found

```
{  
  "Error": "No boat with this boat_id exists"  
}
```

*Failure*

Status: 406 Not Acceptable

```
{"Error": "Accept type must be application/json"}
```

## List all Boats with Pagination Limit 5

List all the boats owned by the user.

GET /boats/:cursor

### Request

#### Path Parameters

Name	Description
cursor	Cursor for the next page of results. It is optional. If no cursor parameter, it will return the first 5 results

### Request Header

Accept Header must include application/json as an acceptable MIME type option

Authorization Header must be set to "Bearer [valid\_jwt]"

### Request Body

None

### Response

#### Response Body Format

JSON

#### Response Statuses

Outcome	Status Code	Notes
Success	200 OK	Only 5 results will be sent at a time. The "next" property contains a URL to get the next page of results and returns null if it is the last page of results or if there's less than 5 boats.
Failure	401 Not Authorized	Must have a valid JWT. This response indicates an invalid or missing JWT.
Failure	403 Forbidden	User must be the owner of the boats to view them
Failure	406 Not Acceptable	Accept MIME type must be JSON or HTML. 406 Status returned with JSON error message.

#### Response Examples

##### Success

Status: 200 OK

```
{
  "next":
  "http://127.0.0.1:8080/boats?cursor=CioSJGo0ZH5odzgtZGVtZWlzb2xyEgsSBWJvYXRzGICAgPi
  g2YMLDBgAIAA%3D",
  "total_boats": 6,
  "boats": [{
    "length": 99,
    "owner": "111085852131838231825",
    "type": "Yacht",
    "name": "Odyssey4",
```

```

      "id": 4810949416452096,
      "self": "http://127.0.0.1:8080/boats/4810949416452096",
      "loads": "http://127.0.0.1:8080/boats/4810949416452096/loads"
    }, {
      "length": 99,
      "owner": "111085852131838231825",
      "type": "Yacht",
      "name": "Odyssey6",
      "id": 4868412186558464,
      "self": "http://127.0.0.1:8080/boats/4868412186558464",
      "loads": "http://127.0.0.1:8080/boats/4868412186558464/loads"
    }, {
      "name": "Odyssey5",
      "length": 99,
      "owner": "111085852131838231825",
      "type": "Yacht",
      "id": 5668756323827712,
      "self": "http://127.0.0.1:8080/boats/5668756323827712",
      "loads": "http://127.0.0.1:8080/boats/5668756323827712/loads"
    }, {
      "length": 7000,
      "owner": "111085852131838231825",
      "type": "Better Oil Tanker",
      "name": "Put In",
      "id": 5750704903815168,
      "self": "http://127.0.0.1:8080/boats/5750704903815168",
      "loads": "http://127.0.0.1:8080/boats/5750704903815168/loads"
    }, {
      "name": "Odyssey2",
      "length": 99,
      "owner": "111085852131838231825",
      "type": "Yacht",
      "id": 6208710485475328,
      "self": "http://127.0.0.1:8080/boats/6208710485475328",
      "loads": "http://127.0.0.1:8080/boats/6208710485475328/loads"
    }
  ]
}

```

#### Failure

```

Status: 401 Not Authorized

{
  "Error": "No boat with this boat_id exists"
}

```

#### Failure

```

Status: 403 Forbidden

{"Error": "Protected resources can only be viewed by owner"}

```

#### Failure

```

Status: 406 Not Acceptable

{"Error": "Accept type must be application/json"}

```

## Edit Boat Attribute(s)

Allows for editing a boat's attributes. To edit all attributes of a boat, use [Edit a boat](#).

PATCH /boats/:boat_id
-----------------------

### Request

#### Path Parameters

Name	Description
boat_id	ID of the boat

#### Request Header

Accept Header must include application/json as an acceptable MIME type option

Authorization Header must be set to "Bearer [valid\_jwt]"

#### Request Body

Required

#### Request Body Format

JSON

#### Request JSON Attributes

Name	Description	Required?
name	String. The name of the boat.	No
type	String. The type of the boat. E.g., Sailboat, Catamaran, etc.	No
length	Integer. Length of the boat in feet.	No

#### Request Body Example

```
{
  "type": "Oil Tanker",
  "length": 5000
}
```

### Response

#### Response Body Format

JSON

#### Response Statuses

Outcome	Status Code	Notes
Success	200 OK	
Failure	400 Bad Request	Must only be editing one or two of the body example attributes
Failure	401 Not Authorized	Must have a valid JWT. This response indicates an invalid or missing JWT.
Failure	403 Forbidden	User must be the owner of the boats to edit them
Failure	404 Not Found	No boat with this boat_id exists
Failure	406 Not Acceptable	Accept MIME type must be JSON. The boat is not created.

## Response Examples

### Success

Status: 200 OK

```
{
  "id": 5750704903815168,
  "length": 5000,
  "name": "Odyssey1",
  "owner": "111085852131838231825",
  "self": "http://127.0.0.1:8080/boats/5750704903815168",
  "type": "Oil Tanker"
}
```

### Failure

Status: 400 Bad Request

```
{"Error": "Must have 1 or 2 attributes to PATCH the load with this load_id"}
```

### Failure

Status: 401 Not Authorized

```
{"Error": "Missing JWT"}
```

### Failure

Status: 401 Not Authorized

```
{"Error": "Invalid or Expired JWT. Update token."}
```

### Failure

Status: 403 Forbidden

```
{"Error": "Protected resources can only be viewed by owner"}
```

### Failure

Status: 406 Not Acceptable

```
{"Error": "Accept type must be application/json"}
```

## Edit a Boat

Allows you to edit all the boat's attributes at once. To edit only some attributes of the boat, see [Edit Boat Attributes](#).

PUT/boats/:boat\_id

### Request

#### Path Parameters

Name	Description
boat_id	ID of the boat

#### Request Header

Accept Header must include application/json as an acceptable MIME type option

Authorization Header must be set to "Bearer [valid\_jwt]"

#### Request Body

Required

#### Request Body Format

JSON

#### Request JSON Attributes

Name	Description	Required?
name	String. The name of the boat.	Yes
type	String. The type of the boat. E.g., Sailboat, Catamaran, etc.	Yes
length	Integer. Length of the boat in feet.	Yes

#### Request Body Example

```
{
  "name": "Put In",
  "type": "Better Oil Tanker",
  "length": 7000
}
```

### Response

#### Response Body Format

JSON

#### Response Statuses

Outcome	Status Code	Notes
Failure	400 Bad Request	Request must have exactly the number of attributes listed in the request body example
Failure	401 Not Authorized	Must have a valid JWT. This response indicates an invalid or missing JWT.
Failure	403 Forbidden	User must be the owner of the boats to edit them
Failure	404 Not Found	No boat with this boat_id exists
Failure	406 Not Acceptable	Accept MIME type must be JSON. The boat is not created.

## Response Examples

### Success

Status: 200 OK

```
{
  "id": 5750704903815168,
  "length": 7000,
  "name": "Put In",
  "owner": "111085852131838231825",
  "self": "http://127.0.0.1:8080/boats/5750704903815168",
  "type": "Better Oil Tanker"
}
```

### Failure

Status: 400 Bad Request

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

### Failure

Status: 401 Not Authorized

```
{"Error": "Missing JWT"}
```

### Failure

Status: 401 Not Authorized

```
{"Error": "Invalid or Expired JWT. Update token."}
```

### Failure

Status: 403 Forbidden

```
{"Error": "Protected resources can only be viewed by owner"}
```

### Failure

Status: 404 Not Found

```
{
  "Error": "No boat with this boat_id exists"
}
```

### Failure

Status: 406 Not Acceptable

```
{"Error": "Accept type must be application/json"}
```

## Delete a Boat

Allows you to delete a boat. Note that if the boat has loads on it, their carrier property will be set to null.

DELETE /boats/:boat_id
------------------------

### Request

#### Path Parameters

Name	Description
boat_id	ID of the boat

#### Request Header

Authorization Header must be set to "Bearer [valid\_jwt]"

#### 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	401 Not Authorized	Must have a valid JWT. This response indicates an invalid or missing JWT.
Failure	403 Forbidden	User must be the owner of the boats to edit them
Failure	404 Not Found	No boat with this boat_id exists

#### Response Examples

##### Success

Status: 204 No Content
------------------------

##### Failure

Status: 401 Not Authorized
{"Error": "Missing JWT"}

##### Failure

Status: 401 Not Authorized
{"Error": "Invalid or Expired JWT. Update token."}

##### Failure

Status: 403 Forbidden
{"Error": "Protected resources can only be viewed by owner"}



*Failure*

Status: 404 Not Found

```
{"Error": "No boat with this boat_id exists"}
```

## Create a Load

Allows you to create a new load. New loads are not assigned to any boat.

POST /loads
-------------

### Request

#### Path Parameters

None

#### Request Header

Accept Header must include application/json as an acceptable MIME type option

#### Request Body

Required

#### Request Body Format

JSON

#### Request JSON Attributes

Name	Description	Required?
volume	Integer. Volume of load.	Yes
item	String. Type of item in the load	Yes
creation_date	String. Date in mm/dd/yyyy format.	Yes

#### Request Body Example

```
{
  "volume": 10,
  "item": "Stickers",
  "creation_date": "02/22/2022"
}
```

### Response

#### Response Body Format

JSON

#### Response Statuses

Outcome	Status Code	Notes
Success	201 Created	
Failure	400 Bad Request	Request must have exactly 3 attributes
Failure	406 Not Acceptable	Accept MIME type must be JSON. The boat is not created.

#### Response Examples

- The value of the attribute `carrier` is the ID of the boat carrying the load. If the load is not on a boat, the value of `carrier` should be null.

#### Success

Status: 201 Created
{

```
"carrier": null,  
"creation_date": "02/22/2022",  
"id": 5184813602439168,  
"item": "Stickers",  
"self": "http://127.0.0.1:8080/loads/5184813602439168",  
"volume": 10  
}
```

*Failure*

Status: 400 Bad Request

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

*Failure*

Status: 406 Not Acceptable

```
{"Error": "Accept type must be application/json"}
```

## Get a Load

Allows you to get an existing load.

GET /loads/:load_id
---------------------

### Request

#### Path Parameters

Name	Description
load_id	ID of the load

#### Request Body

None

### Response

#### Response Body Format

JSON

#### Response Statuses

Outcome	Status Code	Notes
Success	200 OK	
Failure	404 Not Found	No load with this load_id exists
Failure	406 Not Acceptable	Accept MIME type must be JSON. The boat is not created.

#### Response Examples

##### Success

Status: 200 OK
<pre>{   "creation_date": "10/18/2021",   "carrier": null,   "volume": 5,   "item": "LEGO Blocks",   "id": 5184813602439168,   "self": "http://127.0.0.1:8080/loads/5184813602439168" }</pre>

##### Failure

Status: 404 Not Found
<pre>{   "Error": "No load with this load_id exists" }</pre>

##### Failure

Status: 406 Not Acceptable
<pre>{"Error": "Accept type must be application/json"}</pre>

## List all Loads with Pagination Limit 5

List all the loads.

GET /loads/:cursor
--------------------

### Request

#### Path Parameters

Name	Description
cursor	Cursor for the next page of results. It is optional. If no cursor parameter, it will return the first 5 results

#### Request Header

Accept Header must include application/json as an acceptable MIME type option

#### Request Body

None

### Response

#### Response Body Format

JSON

#### Response Statuses

Outcome	Status Code	Notes
Success	200 OK	Only five results will be sent at a time. The "next" property contains a URL to get the next page of results.
Failure	406 Not Acceptable	Accept MIME type must be JSON. The boat is not created.

#### Response Examples

##### Success

Status: 200 OK
<pre>{   "next": "http://127.0.0.1:8080/loads?cursor=CioSJGo0ZH5odzgtZGVtZWlzb2xyEgsSBWxvYWRzGICAgLi KtpMKDBgAIAA%3D",   "total_loads": 6,   "loads": [{     "creation_date": "02/22/2022",     "volume": 10,     "carrier": null,     "item": "Stickers3",     "id": 4795176081948672,     "self": "http://127.0.0.1:8080/loads/4795176081948672"   }, {     "item": "Stickers5",     "creation_date": "02/22/2022",     "volume": 10,     "carrier": null,     "id": 4862202200719360,     "self": "http://127.0.0.1:8080/loads/4862202200719360"   }, {</pre>

```
    "item": "Stickers2",
    "creation_date": "02/22/2022",
    "carrier": null,
    "volume": 10,
    "id": 5165365990522880,
    "self": "http://127.0.0.1:8080/loads/5165365990522880"
  }, {
    "item": "LEGO Blocks",
    "creation_date": "10/18/2021",
    "carrier": null,
    "volume": 5,
    "id": 5184813602439168,
    "self": "http://127.0.0.1:8080/loads/5184813602439168"
  }, {
    "item": "Stickers6",
    "creation_date": "02/22/2022",
    "carrier": null,
    "volume": 10,
    "id": 5714920645591040,
    "self": "http://127.0.0.1:8080/loads/5714920645591040"
  }
]
```

*Failure*

Status: 406 Not Acceptable

```
{"Error": "Accept type must be application/json"}
```

## Delete a Load

Allows you to delete a load. If the load being deleted is on a boat, it is removed from the boat.

DELETE /loads/:load_id
------------------------

### Request

#### Path Parameters

Name	Description
load_id	ID of the load

### 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 load with this load_id exists
Failure	406 Not Acceptable	Accept MIME type must be JSON. The boat is not created.

#### Response Examples

##### Success

Status: 204 No Content
------------------------

##### Failure

Status: 404 Not Found  <pre>{   "Error": "No load with this load_id exists" }</pre>
---

##### Failure

Status: 406 Not Acceptable  <pre>{"Error": "Accept type must be application/json"}</pre>
--

## Edit Load Attribute(s)

Allows for editing a load's attributes. To edit all attributes of a load, use [Edit a load](#).

```
PATCH /loads/:load_id
```

### Request

#### Path Parameters

Name	Description
load_id	ID of the load

#### Request Header

Accept Header must include application/json as an acceptable MIME type option

### Request Body

Required

#### Request Body Format

JSON

#### Request JSON Attributes

Name	Description	Required?
volume	Integer. Volume of load.	No
item	String. Type of item in the load	No
creation_date	String. Date in mm/dd/yyyy format.	No

#### Request Body Example

```
{
  "volume": 8,
  "item": "Silly String"
}
```

### Response

#### Response Body Format

JSON

#### Response Statuses

Outcome	Status Code	Notes
Success	200 OK	
Failure	400 Bad Request	Must only be editing one or two of the body example attributes
Failure	403 Forbidden	Carrier cannot be changed directly. Must use <a href="#">Assign a Load</a> or <a href="#">Remove a Load</a> .
Failure	404 Not Found	No load with this load_id exists
Failure	406 Not Acceptable	Accept MIME type must be JSON. The load is not created.



## Response Examples

### Success

Status: 200 OK

```
{
  "carrier": null,
  "creation_date": "02/22/2022",
  "id": 5184813602439168,
  "item": "Silly String",
  "self": "http://127.0.0.1:8080/loads/5184813602439168",
  "volume": 8
}
```

### Failure

Status: 400 Bad Request

```
{"Error": "Must have 1 or 2 attributes to PATCH the load with this load_id"}
```

### Failure

Status: 403 Forbidden

```
{"Error": "To update carrier you must use GET boats/:boat_id/loads/load_id"}
```

### Failure

Status: 404 Not Found

```
{
  "Error": "No load with this load_id exists"
}
```

### Failure

Status: 406 Not Acceptable

```
{"Error": "Accept type must be application/json"}
```

## Edit a Load

Allows you to edit all the load's attributes at once. To edit only some attributes of the load, see [Edit Load Attributes](#).

PUT/loads/:load\_id

### Request

#### Path Parameters

Name	Description
load_id	ID of the load

#### Request Header

Accept Header must include application/json as an acceptable MIME type option

#### Request Body

Required

#### Request Body Format

JSON

#### Request JSON Attributes

Name	Description	Required?
volume	Integer. Volume of load.	Yes
item	String. Type of item in the load	Yes
creation_date	String. Date in mm/dd/yyyy format.	Yes

#### Request Body Example

```
{
  "volume": 5,
  "item": "LEGO Blocks",
  "creation_date": "10/18/2021"
}
```

### Response

#### Response Body Format

JSON

#### Response Statuses

Outcome	Status Code	Notes
Success	200 OK	
Failure	400 Bad Request	Must have the 3 required attributes in example section
Failure	403 Forbidden	Carrier cannot be changed directly. Must use <a href="#">Assign a Load</a> or <a href="#">Remove a Load</a> .
Failure	404 Not Found	No load with this load_id exists
Failure	406 Not Acceptable	Accept MIME type must be JSON. The load is not created.

## Response Examples

### Success

Status: 200 OK

```
{
  "carrier": null,
  "creation_date": "10/18/2021",
  "id": 5184813602439168,
  "item": "LEGO Blocks",
  "self": "http://127.0.0.1:8080/loads/5184813602439168",
  "volume": 5
}
```

### Failure

Status: 400 Bad Request

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

### Failure

Status: 403 Forbidden

```
{"Error": "To update carrier you must use GET boats/:boat_id/loads/load_id"}
```

### Failure

Status: 404 Not Found

```
{
  "Error": "No load with this load_id exists"
}
```

### Failure

Status: 406 Not Acceptable

```
{"Error": "Accept type must be application/json"}
```

## Assign Load to Boat

Assign a load to a boat. If it is already assigned to another boat, it will not be assigned.

PUT /boats/:boat_id/:load_id
------------------------------

### Request

#### Path Parameters

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

#### Request Header

Accept Header must include application/json as an acceptable MIME type option

#### 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 a boat exists with this boat_id, a load exists with this load_id and the load is unassigned.
Failure	401 Not Authorized	Must have a valid JWT. This response indicates an invalid or missing JWT.
Failure	403 Forbidden	User must be the owner of the boats to edit them. The boat must not be assigned to another boat.
Failure	404 Not Found	The specified boat and/or load does not exist
Failure	406 Not Acceptable	Accept MIME type must be JSON or HTML. The boat is not created.

#### Response Examples

##### Success

Status: 204 No Content
------------------------

##### Failure

Status: 401 Not Authorized
{"Error": "Missing JWT"}

##### Failure

Status: 401 Not Authorized
----------------------------

```
{"Error": "Invalid or Expired JWT. Update token."}
```

*Failure*

Status: 403 Forbidden

```
{"Error": "Protected resources can only be viewed by owner"}
```

*Failure*

Status: 403 Forbidden

```
{"Error": "The load is already assigned to another boat"}
```

*Failure*

Status: 404 Not Found

```
{"Error": "No load with this boat_id exists and/or No load with this load_id exists"}
```

*Failure*

Status: 406 Not Acceptable

```
{"Error": "Accept type must be application/json"}
```

## Remove a Load

Remove a load from a boat.

DELETE /boats/:boat_id/:load_id
---------------------------------

### Request

#### Path Parameters

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

#### Request Header

Accept Header must include application/json as an acceptable MIME type option

#### 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 a boat exists with this boat_id, a load exists with this load_id and the load with this load_id is assigned to that boat with this boat_id.
Failure	401 Not Authorized	Must have a valid JWT. This response indicates an invalid or missing JWT.
Failure	403 Forbidden	User must be the owner of the boats to edit them
Failure	404 Not Found	No boat with this boat_id is loaded with the load with this load_id or invalid boat_id or invalid load_id.
Failure	406 Not Acceptable	Accept MIME type must be JSON or HTML. The boat is not created.

#### Response Examples

##### Success

Status: 204 No Content
------------------------

##### Failure

Status: 401 Not Authorized
{"Error": "Missing JWT"}

##### Failure

Status: 401 Not Authorized
----------------------------

```
{"Error": "Invalid or Expired JWT. Update token."}
```

*Failure*

Status: 403 Forbidden

```
{"Error": "Protected resources can only be viewed by owner"}
```

*Failure*

Status: 404 Not Found

```
{"Error": "No load with this boat_id exists and/or No load with this load_id exists"}
```

*Failure*

Status: 404 Not Found

```
{"Error": "Load with this load_id is not on boat with this boat_id"}
```

*Failure*

Status: 406 Not Acceptable

```
{"Error": "Accept type must be application/json"}
```

## List All Loads Assigned to a Boat

List all the loads assigned to a particular boat.

GET /boats/:boat_id/loads
---------------------------

### Request

#### Path Parameters

Name	Description
boat_id	ID of the boat

#### Request Header

Accept Header must include application/json as an acceptable MIME type option

#### Request Body

None

### Response

#### Response Body Format

JSON

#### Response Statuses

Outcome	Status Code	Notes
Success	204 No Content	Succeeds only if a boat exists with this boat_id.
Failure	401 Not Authorized	Must have a valid JWT. This response indicates an invalid or missing JWT.
Failure	403 Forbidden	User must be the owner of the boats to edit them
Failure	404 Not Found	No boat with this boat_id exists
Failure	406 Not Acceptable	Accept MIME type must be JSON or HTML. The boat is not created.

#### Response Examples

##### Success

Status: 200 OK
<pre>{   "loads": [{     "item": "Stickers3",     "creation_date": "02/22/2022",     "carrier": {       "id": 5750704903815168,       "self": "http://127.0.0.1:8080/boats/5750704903815168"     },     "volume": 10,     "id": 4795176081948672,     "self": "http://127.0.0.1:8080/loads/4795176081948672"   }, {     "item": "Stickers2",     "creation_date": "02/22/2022",     "carrier": {       "id": 5750704903815168,</pre>



```
      "self": "http://127.0.0.1:8080/boats/5750704903815168"
    },
    "volume": 10,
    "id": 5165365990522880,
    "self": "http://127.0.0.1:8080/loads/5165365990522880"
  }
}
```

*Failure*

```
Status: 401 Not Authorized

{"Error": "Missing JWT"}
```

*Failure*

```
Status: 401 Not Authorized

{"Error": "Invalid or Expired JWT. Update token."}
```

*Failure*

```
Status: 403 Forbidden

{"Error": "Protected resources can only be viewed by owner"}
```

*Failure*

```
Status: 404 Not Found

{"Error": "No boat with this boat_id exists"}
```

*Failure*

```
Status: 406 Not Acceptable

{"Error": "Accept type must be application/json"}
```