Portfolio Assignment: Final Project

CS 493: Cloud Application Development  
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# Change log

|  |  |  |
| --- | --- | --- |
| **Page** | **Change** | **Date** |
|  | Initial version. | Tue, June 2 |

# URLs

URL to root: [https://ohsa-project.wl.r.appspot.com](https://ohsa-project.wl.r.appspot.com/)  
URL to login: <https://ohsa-project.wl.r.appspot.com/welcome>

* User must login first before using the API.
* Two different JWTs each with a different “sub” property, acquired from the UserInfo page after the login, must be entered in the “ohsa\_project.postman\_environment.json”, in the attributes of “jwt1” and “jwt2”.

# Data Model

## Entities

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Entity** | **Property** | **Type** | **Required?** | **Valid Values** |
| User | sub | string | yes | The “sub” property decoded from the JWT provided by the Google People API once the user logs in |
| given\_name | string | yes | The “given\_name” property decoded from the JWT |
| family\_name | string | yes | The “family\_name” property decoded from the JWT |
| boats | array of objects | no | an array of objects with “id” and “self” attributes of each boat |
| Boat | name | string | yes | string length between 2 and 32, alphanumeric and/or “\_ @ . / # & + - ] \* $” |
| type | string | yes | string length between 2 and 32, alphanumeric and/or “\_ @ . / # & + - ] \* $” |
| length | number | yes | positive number greater than 0 and less than or equal to 65535 |
| owner | object | yes | “sub” property of a User entity |
| loads | array of objects | no | an array of objects with “id” and “self” attributes of each load |
| Load | weight | number | yes | positive number greater than 0 and less than or equal to 65535 |
| content | string | yes | string length between 2 and 32, alphanumeric and/or “\_ @ . / # & + - ] \* $” |
| delivery\_date | string | yes | string length between 2 and 32, alphanumeric and/or “\_ @ . / # & + - ] \* $” |
| carrier | object | no | “name”, “id”, “self” property of a Boat entity |

## Relationships Between The Non-User Entities

* A boat can hold zero or many loads.
* A load can be on zero or one boat.

## Details of the User Entity Modeling

* Unique Identifier: The “sub” property decoded from the JWT provided by the Google People API once the user logs in
* If a request needs to supply a user identifier, the JWT from the welcome -> UserInfo page needs to be specified by the person making the request.
* This application maps a supplied JWT to the identifier of a user by decoding the JWT using “jwt-decode” library for JavaScript.
* Relationship with Boat entity:
  + A user can have zero or many boats.
  + A boat always has one user as the owner.

API Specification

# Create a Boat

Allows you to create a new boat. This will add the boat to the owner user.

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

## Request

### Protected?

Yes (JWT as Bearer token required in the Authorization header)

### Request Parameters

None

### Request Body

Required

### Request Body Format

JSON

### Request JSON Attributes

|  |  |  |  |
| --- | --- | --- | --- |
| **Name** | **Type** | **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": "boat name 1\_1",  "type": "boat type 1\_1",  "length": 11  } |

## Response

### Response Body Format

JSON

### Response Statuses

|  |  |  |
| --- | --- | --- |
| **Outcome** | **Status Code** | **Notes** |
| Success | 201 Created |  |
| Failure | 400 Bad Request | Status 400 is given for following reasons:   * The request is missing any of the required attributes * Invalid string in name or type * Invalid number in length   Any extraneous attribute is ignored. |
| Failure | 401 Unauthorized | Status 401 is given for missing or invalid JWT. |
| Failure | 403 Forbidden | The requested name is already in use. |
| Failure | 406 Not Acceptable | The requested Accept type is not supported; it only supports application/json. |
| Failure | 415 Method Not Allowed | The request Content Type is unsupported; it only supports application/json. |

### Response Examples

#### Success

|  |
| --- |
| Status: 201 Created  {  "name": "boat name 1\_1",  "loads": [],  "length": 11,  "type": "boat type 1\_1",  "owner": "109781574015761557704",  "id": "5629654941564928",  "self": "http://ohsa-project.wl.r.appspot.com/boats/5629654941564928"  } |

#### Failure

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

|  |
| --- |
| Status: 401 Unauthorized  {  "Error": "The user token is missing"  } |

|  |
| --- |
| Status: 401 Unauthorized  {  "Error": "The user token is invalid"  } |

|  |
| --- |
| Status: 403 Forbidden  {  "Error": "The name is already in use"  } |

|  |
| --- |
| Status: 406 Not Acceptable  {  "Error": "The Accept type is not supported by this endpoint"  } |

|  |
| --- |
| Status: 415 Method Not Allowed  {  "Error": "The request Content Type is unsupported media type"  } |

### Comments

* Datastore will automatically generate an ID and store it with the entity being created. This value is sent in the response body as shown in the example.
* The “self” attribute contains the live link to the REST resource corresponding to this boat. In other words, this is the URL to get this newly created boat.
* The “owner” attribute contains the “sub” identifier of the owner user.
* The “loads” attribute will hold an empty array upon creation of the boat.

# Get a Boat

Allows you to get an existing boat

|  |
| --- |
| GET /boats/:boat\_id |

## Request

### Protected?

Yes (JWT as Bearer token required in the Authorization header)

### Request Parameters

|  |  |  |  |
| --- | --- | --- | --- |
| **Name** | **Type** | **Description** | **Required?** |
| boat\_id | String | ID of the boat | Yes |

### Request Body

None

## Response

### Response Body Format

JSON

### Response Statuses

|  |  |  |
| --- | --- | --- |
| **Outcome** | **Status Code** | **Notes** |
| Success | 200 OK |  |
| Failure | 401 Unauthorized | Status 401 is given for missing or invalid JWT. |
| Failure | 403 Forbidden | The boat is owned by someone else. |
| Failure | 404 Not Found | No boat with this boat\_id exists |
| Failure | 406 Not Acceptable | The requested Accept type is not supported; it only supports application/json. |

### Response Examples

#### Success

|  |
| --- |
| Status: 200 OK  {  "owner": "109781574015761557704",  "name": "boat name 1\_1",  "loads": [],  "length": 11,  "type": "boat type 1\_1",  "id": "5629654941564928",  "self": "http://ohsa-project.wl.r.appspot.com/boats/5629654941564928"  } |

#### Failure

|  |
| --- |
| Status: 401 Unauthorized  {  "Error": "The user token is missing"  } |

|  |
| --- |
| Status: 401 Unauthorized  {  "Error": "The user token is invalid"  } |

|  |
| --- |
| Status: 403 Forbidden  {  "Error": "The boat is owned by someone else"  } |

|  |
| --- |
| Status: 404 Not Found  {  "Error": "No boat with this boat\_id exists"  } |

|  |
| --- |
| Status: 406 Not Acceptable  {  "Error": "The Accept type is not supported by this endpoint"  } |

# List all Boats

List all the boats by a user.

|  |
| --- |
| GET /boats |

## Request

### Protected?

Yes (JWT as Bearer token required in the Authorization header)

### Request Parameters

None

### Request Body

None

## Response

### Response Body Format

JSON

### Response Statuses

|  |  |  |
| --- | --- | --- |
| **Outcome** | **Status Code** | **Notes** |
| Success | 200 OK | The response is paginated, showing 5 entities at a time, with a 'next' link on every page except the last. |
| Failure | 401 Unauthorized | Status 401 is given for missing or invalid JWT. |
| Failure | 406 Not Acceptable | The requested Accept type is not supported; it only supports application/json. |

### Response Examples

#### Success

|  |
| --- |
| Status: 200 OK  {  "count": 3,  "items": [  {  "name": "boat name 1\_1",  "loads": [],  "length": 11,  "type": "boat type 1\_1",  "owner": "109781574015761557704",  "id": "5666707490209792",  "self": "http://ohsa-project.wl.r.appspot.com/boats/5666707490209792"  },  {  "length": 12,  "type": "boat type 1\_2",  "owner": "109781574015761557704",  "name": "boat name 1\_2",  "loads": [],  "id": "5702893864747008",  "self": "http://ohsa-project.wl.r.appspot.com/boats/5702893864747008"  },  {  "length": 13,  "type": "boat type 1\_3",  "owner": "109781574015761557704",  "name": "boat name 1\_3",  "loads": [],  "id": "5718746756808704",  "self": "http://ohsa-project.wl.r.appspot.com/boats/5718746756808704"  }  ]  } |

#### Failure

|  |
| --- |
| Status: 401 Unauthorized  {  "Error": "The user token is missing"  } |

|  |
| --- |
| Status: 401 Unauthorized  {  "Error": "The user token is invalid"  } |

|  |
| --- |
| Status: 406 Not Acceptable  {  "Error": "The Accept type is not supported by this endpoint"  } |

# Edit a Boat (selected attributes)

Allows you to edit selected attributes (name, type, or length) of a boat.

|  |
| --- |
| PATCH /boats/:boat\_id |

## Request

### Protected?

Yes (JWT as Bearer token required in the Authorization header)

### Request Parameters

|  |  |  |  |
| --- | --- | --- | --- |
| **Name** | **Type** | **Description** | **Required?** |
| boat\_id | String | ID of the boat | Yes |

### Request Body

Required

### Request Body Format

JSON

### Request JSON Attributes

|  |  |  |  |
| --- | --- | --- | --- |
| **Name** | **Type** | **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": "modified type"  } |

## Response

### Response Body Format

JSON

### Response Statuses

|  |  |  |
| --- | --- | --- |
| **Outcome** | **Status Code** | **Notes** |
| Success | 200 OK |  |
| Failure | 400 Bad Request | Status 400 is given for following reasons:   * Invalid string in name or type * Invalid number in length   Any extraneous attribute is ignored. |
| Failure | 401 Unauthorized | Status 401 is given for missing or invalid JWT. |
| Failure | 403 Forbidden | The boat is owned by someone else. |
| Failure | 403 Forbidden | The requested name is already in use. |
| Failure | 404 Not Found | No boat with this boat\_id exists |
| Failure | 406 Not Acceptable | The requested Accept type is not supported; it only supports application/json. |
| Failure | 415 Method Not Allowed | The request Content Type is unsupported; it only supports application/json. |

### Response Examples

#### Success

|  |
| --- |
| Status: 200 OK  {  "length": 11,  "type": "modified type",  "owner": "109781574015761557704",  "name": "boat name 1\_1",  "loads": [],  "id": "5666707490209792",  "self": "http://ohsa-project.wl.r.appspot.com/boats/5666707490209792"  } |

#### Failure

|  |
| --- |
| Status: 400 Bad Request  {  "Error": "The request object has invalid character(s) in type attribute"  } |

|  |
| --- |
| Status: 401 Unauthorized  {  "Error": "The user token is missing"  } |

|  |
| --- |
| Status: 401 Unauthorized  {  "Error": "The user token is invalid"  } |

|  |
| --- |
| Status: 403 Forbidden  {  "Error": "The boat is owned by someone else"  } |

|  |
| --- |
| Status: 403 Forbidden  {  "Error": "The name is already in use"  } |

|  |
| --- |
| Status: 404 Not Found  {  "Error": "No boat with this boat\_id exists"  } |

|  |
| --- |
| Status: 406 Not Acceptable  {  "Error": "The Accept type is not supported by this endpoint"  } |

|  |
| --- |
| Status: 415 Method Not Allowed  {  "Error": "The request Content Type is unsupported media type"  } |

# Edit a Boat (all attributes)

Allows you to edit all the attributes (name, type, and length) of a boat.

|  |
| --- |
| PUT /boats/:boat\_id |

## Request

### Protected?

Yes (JWT as Bearer token required in the Authorization header)

### Request Parameters

|  |  |  |  |
| --- | --- | --- | --- |
| **Name** | **Type** | **Description** | **Required?** |
| boat\_id | String | ID of the boat | Yes |

### Request Body

Required

### Request Body Format

JSON

### Request JSON Attributes

|  |  |  |  |
| --- | --- | --- | --- |
| **Name** | **Type** | **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": "Odyssey II",  "type": "Mega Yatch",  "length": 200  } |

## Response

### Response Body Format

JSON

### Response Statuses

|  |  |  |
| --- | --- | --- |
| **Outcome** | **Status Code** | **Notes** |
| Success | 303 See Other | Response header includes Location of the updated boat. |
| Failure | 400 Bad Request | Status 400 is given for following reasons:   * The request is missing any of the required attributes * Invalid string in name or type * Invalid number in length   Any extraneous attribute is ignored. |
| Failure | 401 Unauthorized | Status 401 is given for missing or invalid JWT. |
| Failure | 403 Forbidden | The boat is owned by someone else. |
| Failure | 403 Forbidden | The requested name is already in use. |
| Failure | 404 Not Found | No boat with this boat\_id exists |
| Failure | 406 Not Acceptable | The requested Accept type is not supported; it only supports application/json. |
| Failure | 415 Method Not Allowed | The request Content Type is unsupported; it only supports application/json. |

### Response Examples

#### Success

|  |
| --- |
| Status: 303 See Other  {  "length": 200,  "type": "Mega Yatch",  "owner": "109781574015761557704",  "name": "Odyssey II",  "loads": [],  "id": "5666707490209792",  "self": "http://ohsa-project.wl.r.appspot.com/boats/5666707490209792"  } |

#### Failure

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

|  |
| --- |
| Status: 401 Unauthorized  {  "Error": "The user token is missing"  } |

|  |
| --- |
| Status: 401 Unauthorized  {  "Error": "The user token is invalid"  } |

|  |
| --- |
| Status: 403 Forbidden  {  "Error": "The boat is owned by someone else"  } |

|  |
| --- |
| Status: 403 Forbidden  {  "Error": "The name is already in use"  } |

|  |
| --- |
| Status: 404 Not Found  {  "Error": "No boat with this boat\_id exists"  } |

|  |
| --- |
| Status: 406 Not Acceptable  {  "Error": "The Accept type is not supported by this endpoint"  } |

|  |
| --- |
| Status: 415 Method Not Allowed  {  "Error": "The request Content Type is unsupported media type"  } |

# Delete a Boat

Allows you to delete a boat. This will unload the boat of any loads first, then delete the boat.

|  |
| --- |
| DELETE /boats/:boat\_id |

## Request

### Protected?

Yes (JWT as Bearer token required in the Authorization header)

### Request Parameters

None

### Request Body

None

## Response

No body

### Response Body Format

JSON

### Response Statuses

|  |  |  |
| --- | --- | --- |
| **Outcome** | **Status Code** | **Notes** |
| Success | 204 No Content |  |
| Failure | 401 Unauthorized | Status 401 is given for missing or invalid JWT. |
| Failure | 403 Forbidden | The boat is owned by someone else. |
| Failure | 404 Not Found | No boat with this boat\_id exists |

### Response Examples

#### Success

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

#### Failure

|  |
| --- |
| Status: 401 Unauthorized  {  "Error": "The user token is missing"  } |

|  |
| --- |
| Status: 401 Unauthorized  {  "Error": "The user token is invalid"  } |

|  |
| --- |
| Status: 403 Forbidden  {  "Error": "The boat is owned by someone else"  } |

|  |
| --- |
| Status: 404 Not Found  {  "Error": "No boat with this boat\_id exists"  } |

# Create a Load

Allows you to create a new load.

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

## Request

### Request Parameters

None

### Request Body

Required

### Request Body Format

JSON

### Request JSON Attributes

|  |  |  |  |
| --- | --- | --- | --- |
| **Name** | **Type** | **Description** | **Required?** |
| weight | Integer | The weight of the load | Yes |
| content | String | The content of the load | Yes |
| delivery\_date | String | The delivery date of the load | Yes |

### Request Body Example

|  |
| --- |
| {  "weight": 11,  "content": "content 1",  "delivery\_date": "06-30-2021"  } |

## Response

### Response Body Format

JSON

### Response Statuses

|  |  |  |
| --- | --- | --- |
| **Outcome** | **Status Code** | **Notes** |
| Success | 201 Created |  |
| Failure | 400 Bad Request | Status 400 is given for following reasons:   * The request is missing any of the required attributes * Invalid string in content or delivery\_date * Invalid number in weight   Any extraneous attribute is ignored. |
| Failure | 406 Not Acceptable | The requested Accept type is not supported; it only supports application/json. |
| Failure | 415 Method Not Allowed | The request Content Type is unsupported; it only supports application/json. |

### Response Examples

#### Success

|  |
| --- |
| Status: 201 Created  {  "weight": 11,  "delivery\_date": "06-30-2021",  "content": "content 1",  "id": "5670392840585216",  "self": "http://ohsa-project.wl.r.appspot.com/loads/5670392840585216"  } |

#### Failure

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

|  |
| --- |
| Status: 406 Not Acceptable  {  "Error": "The Accept type is not supported by this endpoint"  } |

|  |
| --- |
| Status: 415 Method Not Allowed  {  "Error": "The request Content Type is unsupported media type"  } |

### Comments

* Datastore will automatically generate an ID and store it with the entity being created. This value needs to be sent in the response body as shown in the example.
* The value of the attribute “carrier” is the ID and “self” of the boat to which currently this load is assigned. If there no boat is assigned with this load, “carrier” is not displayed.
* The value of the attribute self is a live link to the REST resource corresponding to this load. In other words, this is the URL to get this newly created load.

# Get a Load

Allows you to get an existing load.

|  |
| --- |
| GET /loads/:load\_id |

## Request

### Request Parameters

|  |  |  |  |
| --- | --- | --- | --- |
| **Name** | **Type** | **Description** | **Required?** |
| load\_id | String | ID of the load | Yes |

### 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 | The requested Accept type is not supported; it only supports application/json. |

### Response Examples

#### Success

|  |
| --- |
| Status: 200 OK  {  "delivery\_date": "06-30-2021",  "content": "content 1",  "weight": 11,  "id": "5751860518453248",  "self": "http://localhost:8080/loads/5751860518453248"  } |

#### Failure

|  |
| --- |
| Status: 404 Not Found  {  "Error": "No load with this load\_id exists"  } |

|  |
| --- |
| Status: 406 Not Acceptable  {  "Error": "The Accept type is not supported by this endpoint"  } |

# List all Loads

List all the loads.

|  |
| --- |
| GET /loads |

## Request

### Request Parameters

None

### Request Body

None

## Response

### Response Body Format

JSON

### Response Statuses

|  |  |  |
| --- | --- | --- |
| **Outcome** | **Status Code** | **Notes** |
| Success | 200 OK | The response is paginated, showing 5 entities at a time, with a 'next' link on every page except the last. |
| Failure | 406 Not Acceptable | The requested Accept type is not supported; it only supports application/json. |

### Response Examples

#### Success

|  |
| --- |
| Status: 200 OK  {  "count": 6,  "next": "http://ohsa-project.wl.r.appspot.com/loads?cursor=CikSI2oObX5vaHNhLXByb2plY3RyEQsSBGxvYWQYgICAuNGdkwoMGAAgAA==",  "items": [  {  "content": "content 4",  "weight": 14,  "delivery\_date": "06-30-2024",  "id": "5082810578632704",  "self": "http://ohsa-project.wl.r.appspot.com/loads/5082810578632704"  },  {  "content": "content 3",  "weight": 13,  "delivery\_date": "06-30-2023",  "id": "5114509786087424",  "self": "http://ohsa-project.wl.r.appspot.com/loads/5114509786087424"  },  {  "weight": 12,  "delivery\_date": "06-30-2022",  "content": "content 2",  "id": "5665673409724416",  "self": "http://ohsa-project.wl.r.appspot.com/loads/5665673409724416"  },  {  "weight": 11,  "delivery\_date": "06-30-2021",  "content": "content 1",  "id": "5670392840585216",  "self": "http://ohsa-project.wl.r.appspot.com/loads/5670392840585216"  },  {  "delivery\_date": "06-30-2026",  "content": "content 6",  "weight": 16,  "id": "5714080711049216",  "self": "http://ohsa-project.wl.r.appspot.com/loads/5714080711049216"  }  ]  } |

#### Failure

|  |
| --- |
| Status: 406 Not Acceptable  {  "Error": "The Accept type is not supported by this endpoint"  } |

# Edit a Load (selected attributes)

Allows you to edit selected attributes (weight, content, or delivery\_date) of a load.

|  |
| --- |
| PATCH /loads/:load\_id |

## Request

### Request Parameters

|  |  |  |  |
| --- | --- | --- | --- |
| **Name** | **Type** | **Description** | **Required?** |
| load\_id | String | ID of the load | Yes |

### Request Body

Required

### Request Body Format

JSON

### Request JSON Attributes

|  |  |  |  |
| --- | --- | --- | --- |
| **Name** | **Type** | **Description** | **Required?** |
| weight | Integer | The weight of the load | No |
| content | String | The content of the load | No |
| delivery\_date | String | The delivery date of the load | No |

### Request Body Example

|  |
| --- |
| {  "content": "modified content"  } |

## Response

### Response Body Format

JSON

### Response Statuses

|  |  |  |
| --- | --- | --- |
| **Outcome** | **Status Code** | **Notes** |
| Success | 200 OK |  |
| Failure | 400 Bad Request | Status 400 is given for following reasons:   * Invalid string in content or delivery\_date * Invalid number in weight   Any extraneous attribute is ignored. |
| Failure | 404 Not Found | No boat with this load\_id exists |
| Failure | 406 Not Acceptable | The requested Accept type is not supported; it only supports application/json. |
| Failure | 415 Method Not Allowed | The request Content Type is unsupported; it only supports application/json. |

### Response Examples

#### Success

|  |
| --- |
| Status: 200 OK  {  "delivery\_date": "06-30-2021",  "content": "modified content",  "weight": 11,  "id": "5670392840585216",  "self": "http://ohsa-project.wl.r.appspot.com/loads/5670392840585216"  } |

#### Failure

|  |
| --- |
| Status: 400 Bad Request  {  "Error": "The request object has invalid character(s) in content attribute"  } |

|  |
| --- |
| Status: 404 Not Found  {  "Error": "No load with this load\_id exists"  } |

|  |
| --- |
| Status: 406 Not Acceptable  {  "Error": "The Accept type is not supported by this endpoint"  } |

|  |
| --- |
| Status: 415 Method Not Allowed  {  "Error": "The request Content Type is unsupported media type"  } |

# Edit a Load (all attributes)

Allows you to edit all the attributes (weight, content, and delivery\_date) of a load.

|  |
| --- |
| PUT /loads/:load\_id |

## Request

### Request Parameters

|  |  |  |  |
| --- | --- | --- | --- |
| **Name** | **Type** | **Description** | **Required?** |
| load\_id | String | ID of the load | Yes |

### Request Body

Required

### Request Body Format

JSON

### Request JSON Attributes

|  |  |  |  |
| --- | --- | --- | --- |
| **Name** | **Type** | **Description** | **Required?** |
| weight | Integer | The weight of the load | Yes |
| content | String | The content of the load | Yes |
| delivery\_date | String | The delivery date of the load | Yes |

### Request Body Example

|  |
| --- |
| {  "weight": 300,  "content": "Super Duper",  "delivery\_date": "12-07-2048"  } |

## Response

### Response Body Format

JSON

### Response Statuses

|  |  |  |
| --- | --- | --- |
| **Outcome** | **Status Code** | **Notes** |
| Success | 303 See Other | Response header includes Location of the updated load. |
| Failure | 400 Bad Request | Status 400 is given for following reasons:   * The request is missing any of the required attributes * Invalid string in content or delivery\_date * Invalid number in weight   Any extraneous attribute is ignored. |
| Failure | 404 Not Found | No load with this load\_id exists |
| Failure | 406 Not Acceptable | The requested Accept type is not supported; it only supports application/json. |
| Failure | 415 Method Not Allowed | The request Content Type is unsupported; it only supports application/json. |

### Response Examples

#### Success

|  |
| --- |
| Status: 303 See Other  {  "weight": 300,  "delivery\_date": "12-07-2048",  "content": "Super Duper",  "id": "5670392840585216",  "self": "http://ohsa-project.wl.r.appspot.com/loads/5670392840585216"  } |

#### Failure

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

|  |
| --- |
| Status: 404 Not Found  {  "Error": "No load with this load\_id exists"  } |

|  |
| --- |
| Status: 406 Not Acceptable  {  "Error": "The Accept type is not supported by this endpoint"  } |

|  |
| --- |
| Status: 415 Method Not Allowed  {  "Error": "The request Content Type is unsupported media type"  } |

# Delete a Load

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

|  |
| --- |
| DELETE /loads/:load\_id |

## Request

### Request Parameters

None

### 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 |

### Response Examples

#### Success

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

#### Failure

|  |
| --- |
| Status: 404 Not Found  {  "Error": "No load with this load\_id exists"  } |

# Assign a Load to a Boat

A load is assigned to a boat.

|  |
| --- |
| PUT /boats/:boat\_id/loads/:load\_id |

## Request

### Protected?

Yes (JWT as Bearer token required in the Authorization header)

### Request Parameters

None

### 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, the boat is owned by the requesting user, a load exists with this load\_id, and the load is not assigned. |
| Failure | 401 Unauthorized | Status 401 is given for missing or invalid JWT. |
| Failure | 403 Forbidden | The boat is owned by someone else. |
| Failure | 403 Forbidden | The load is already assigned to a boat. |
| Failure | 404 Not Found | No boat with this boat\_id exists, and/or no load with this load\_id exits. |

### Response Examples

#### Success

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

#### Failure

|  |
| --- |
| Status: 401 Unauthorized  {  "Error": "The user token is missing"  } |

|  |
| --- |
| Status: 401 Unauthorized  {  "Error": "The user token is invalid"  } |

|  |
| --- |
| Status: 403 Forbidden  {  "Error": "The boat is owned by someone else"  } |

|  |
| --- |
| Status: 403 Forbidden  {  "Error": "The load already has a carrier"  } |

|  |
| --- |
| Status: 404 Not Found  {  "Error": "The specified boat and/or load don’t exist"  } |

# Unload a Load from a Boat

Unload the load from the boat.

|  |
| --- |
| DELETE /boats/:boat\_id/loads/:load\_id |

## Request

### Protected?

Yes (JWT as Bearer token required in the Authorization header)

### Request Parameters

None

### 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, the boat is owned by the requesting user, a load exists with this load\_id, and the load is not assigned. |
| Failure | 401 Unauthorized | Status 401 is given for missing or invalid JWT. |
| Failure | 403 Forbidden | The boat is owned by someone else. |
| Failure | 404 Not Found | No load with this load\_id is assigned to a boat with this boat\_id. |

### Response Examples

#### Success

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

#### Failure

|  |
| --- |
| Status: 401 Unauthorized  {  "Error": "The user token is missing"  } |

|  |
| --- |
| Status: 401 Unauthorized  {  "Error": "The user token is invalid"  } |

|  |
| --- |
| Status: 403 Forbidden  {  "Error": "The boat is owned by someone else"  } |

|  |
| --- |
| Status: 404 Not Found  {  "Error": "No load with this loadID is on the boat with this boatID"  } |

# Get Loads on a Boat

View all the loads currently on the boat.

|  |
| --- |
| GET /boats/:boat\_id/loads |

## Request

### Protected?

Yes (JWT as Bearer token required in the Authorization header)

### Request Parameters

None

### Request Body

None

## Response

### Response Body Format

JSON

### Response Statuses

|  |  |  |
| --- | --- | --- |
| **Outcome** | **Status Code** | **Notes** |
| Success | 200 OK | The response is not paginated. |
| Failure | 401 Unauthorized | Status 401 is given for missing or invalid JWT. |
| Failure | 403 Forbidden | The boat is owned by someone else. |
| Failure | 404 Not Found | No boat with this boat\_id exists |

### Response Examples

#### Success

|  |
| --- |
| Status: 200 OK  {  "items": [  {  "delivery\_date": "06-30-2023",  "content": "content 3",  "weight": 13,  "id": "5114509786087424",  "self": "http://ohsa-project.wl.r.appspot.com/loads/5114509786087424"  },  {  "delivery\_date": "06-30-2024",  "content": "content 4",  "weight": 14,  "id": "5082810578632704",  "self": "http://ohsa-project.wl.r.appspot.com/loads/5082810578632704"  },  {  "delivery\_date": "06-30-2025",  "content": "content 5",  "weight": 15,  "id": "5736741495373824",  "self": "http://ohsa-project.wl.r.appspot.com/loads/5736741495373824"  },  {  "weight": 16,  "delivery\_date": "06-30-2026",  "content": "content 6",  "id": "5714080711049216",  "self": "http://ohsa-project.wl.r.appspot.com/loads/5714080711049216"  },  {  "delivery\_date": "12-07-2048",  "content": "Super Duper",  "weight": 300,  "id": "5670392840585216",  "self": "http://ohsa-project.wl.r.appspot.com/loads/5670392840585216"  },  {  "delivery\_date": "06-30-2022",  "content": "content 2",  "weight": 12,  "id": "5665673409724416",  "self": "http://ohsa-project.wl.r.appspot.com/loads/5665673409724416"  }  ],  "count": 6  } |

#### Failure

|  |
| --- |
| Status: 401 Unauthorized  {  "Error": "The user token is missing"  } |

|  |
| --- |
| Status: 401 Unauthorized  {  "Error": "The user token is invalid"  } |

|  |
| --- |
| Status: 403 Forbidden  {  "Error": "The boat is owned by someone else"  } |

|  |
| --- |
| Status: 404 Not Found  {  "Error": "No boat with this boat\_id exists"  } |