Portfolio Project

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Source: Template acquired from OSU CS 493

URL where your application is deployed: https://perezjos-project.uw.r.appspot.com

URL for account creation/login: https://perezjos-project.uw.r.appspot.com

Change log

Version	Change	Date
1.0	Initial version.	June 02, 2022

Data Model

The app stores two kinds of entities in Datastore, Boats and Loads. ([Source])

Boats

Property	Data Type	Notes
id	Integer	The id of the boat. Datastore automatically generates it. Don't add it yourself as a property of the entity.
name	String	Name of the boat. [Required]
type	String	Type of the boat. E.g., Sailboat, Catamaran, etc. [Required]
length	Integer	The length of the boat in feet. [Required]
loads	Array	List of objects. Contains ID of load and self url for direct access to load object
self	String	Url for direct access to boat object

Loads

Property	Data Type	Notes
id	Integer	The id of the load. Datastore automatically generates it. Don't add it yourself as a property of the entity.
volume	Integer	The volume of the load. [Required]
carrier	Array	The boat carrying the load. Contains ID, Name, and self url of boat object for direct access.
item	String	Description of load item. [Required]
creation_date	Date	Date load was created. [Required]
self	String	Url for direct access to boat object

User

Property	Data Type	Notes
sub	string	The unique id of the user. This is found in the JWT. [Required]
first	string	First name [Required]
last	string	Last name [Required]

Relationship description

A description of the relationship between the non-user entities.

- Boat has loads. This is a one to many relationship. One boat can have many loads. Load can only be in one boat.

What is the unique identifier for a user in your data model.

- The identifier being used for the user is the sub. Note that it is not the id, so there are two unique values, but the sub is the one being used as the unique identifier with the non-user entities.

If a request needs to supply a user identifier, what needs to be specified by the person making the request.

- Only a JWT is necessary in the header. The sub is used internally for all functions. You, the client, do not need to supply any other identifying values or tokens.

How your application maps a supplied JWT to the identifier of a user.

- The user account is made automatically when signing in through the URL for account creation. From there, the JWT is checked for validity. If it is valid, the sub is extracted and used for CRUD functionality tied to the user. Only the user can modify or create their own boats. Loads are public and can be accessed and modified freely.

What is the relationship between the user entity and non-user entity.

- This is a one to many relationship. The User can have multiple boats. Each boat is tied to only one User.

Protected endpoints:	Unprotected endpoints:
/boats	/users
	/loads

Create a Boat

Allows you to create a new boat.

POST /boats

Request

Headers

Name	Values	Required?
Authorization	User's jwt	Yes
Content-Type	*/* or application/json	Yes
Accept	application/json	Yes

Path Parameters

None

Request Body

Required

Request Body Format

JSON

Request JSON Attributes

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

Request Body Example

```
{ "name": "Sea Witch",
  "type": "Catamaran",
  "length": 28}
```

Response

Response Header

```
Success: Content-Type: application/json

Failure: Content-Type: application/json or text/html,
        Allow: GET, POST
```

Response Body Format

Success: JSON

Failure: JSON or HTML

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. String values are checked

		for symbols and will return error if present. Integers will be validated. Any additional attributes are ignored.
Failure	401 Forbidden	Authorization missing (JWT)
Failure	401 Forbidden	Authorization invalid (JWT)
Failure	403 Forbidden	Name of the boat must be unique. Fails otherwise.
Failure	405 Method Not Allowed	Methods other than POST or GET are used. Header (Allow) sent with POST, GET filled
Failure	406 Not Acceptable	Client wants a media type other than json. Request body and 'accept' header are checked to make sure it is json.
Failure	415 Unsupported Media Type	Client sends an unsupported media type to the server or Content-Type does not equal application/json.

Response Examples

Success

Status: 201 Created
```
{ "id": 123, "name": "Sea Witch", "type": "Catamaran", "length": 28, "loads: [],
   "owner": 097823409872, "self":"https://appspot.com/boats/1234"}
```

Failure

Status: 400 Bad Request
```
{"Error":  "The request object is missing at least one of the required attributes"}
```
OR
```
{"Error":   "The request object has at least one invalid value assigned to an
attribute"}
```

Status: 401 Unauthorized
```
{"Error": "JWT is invalid"} OR {"Error": "Authorization header is missing JWT"}
```

Status: 403 Forbidden
```
{"Error": "There is already a boat with that name"}
```

Status: 405 Method Not Allowed
```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 3.2 Final//EN">
<title>405 Method Not Allowed</title>
<h1>Method Not Allowed</h1>
<p>The method is not allowed for the requested URL.</p>
```

Status: 406 Not Acceptable
```
{"Error": "The request header 'Accept' is not application/json"}
```

Status: 415 Unsupported Media Type
```
{"Error": "The request header 'content_type' is not application/json and/or the sent request body
does not contain json"}
```

View a Boat

Allows you to get an existing boat

GET /boats/:boat_id

Request

Headers

Name	Values	Required?
Authorization	User's jwt	Yes
Accept	application/json	Yes

Path Parameters

Name	Description
boat_id	ID of the boat

Request Body

None

Response

Response Header

```
Success: Content-Type: application/json

Failure: Content-Type: application/json or text/html,
         Allow: GET, PUT, PATCH, DELETE
```

Response Body Format

Success: JSON

Failure: JSON or HTML

Response Statuses

Outcome	Status Code	Notes
Success	200 OK	
Failure	401 Forbidden	Authorization missing (JWT)
Failure	401 Forbidden	Authorization invalid (JWT)
Failure	404 Not Found	No boat with this boat_id exists
Failure	405 Method Not Allowed	Method other than GET, PUT, PATCH, or DELETE. Header (Allow) sent with GET, PUT, PATCH, DELETE
Failure	406 Not Acceptable	The request header 'Accept' is not application/json. Validation of header is checked.

Response Examples

Success

Status: 200 OK
{ "id": 123, "name": "Sea Witch", "type": "Catamaran", "length": 28, "loads: [],
   "owner": 097823409872, "self":"https://appspot.com/boats/1234"}

Failure

Status: 401 Unauthorized
{"Error": "JWT is invalid"} **OR** {"Error": "Authorization header is missing JWT"}

Status: 404 Not Found

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

Status: 405 Method Not Allowed

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 3.2 Final//EN">
<title>405 Method Not Allowed</title>
<h1>Method Not Allowed</h1>
<p>The method is not allowed for the requested URL.</p>
```

Status: 406 Not Acceptable

{"Error": "The request header 'Accept' is not application/json"}

View all Boats owned by User

List all the boats.

GET /boats

Request

Headers

Name	Values	Required?
Authorization	User's jwt	Yes
Accept	application/json	Yes

Path Parameters

None

Optional Path Parameters (NOTE: If no parameters are given, a limit of 5 and offset of 0 is used.)

Limit

Offset

Request Body

None

Response

Response Header

```
Success: Content-Type: application/json

Failure: Content-Type: application/json or text/html,
         Allow: GET, POST
```

Response Body Format

Success: JSON

Failure: JSON or HTML

Response Statuses

Outcome	Status Code	Notes
Success	200 OK	
Failure	405 Method Not Allowed	Method other than GET and POST. Header (Allow) sent with GET, POST
Failure	406 Not Acceptable	The request header 'Accept' is not application/json. Validation of header is checked.

Response Examples

```
Status: 200 OK

{"boats":

        [

        {"type": "Catamaran", "length": 28, "name": "Sea Witch", "loads": [],
            "owner": 097823409872, "self":"https://appspot.com/boats/1234"
        "id": 4586837486075904},

        {"length": 28,"type": "Catamaran", "loads": [], "name": "Sea Wench",
            "owner": 097823409590, "self":"https://appspot.com/boats/1234"
        "id": 5391607687806976},

        {"name": "Sea Wizard", "length": 28, "loads": [], "type": "Catamaran",
            "owner": 097823409360, "self":"https://appspot.com/boats/1234"
        "id": 5947148386435072},

        {"length": 28,"type": "Catamaran", "loads": [], "name": "Sea Apprentice",
            "owner": 097823409998, "self":"https://appspot.com/boats/1234"
        "id": 5391607687801684},

        {"name": "Durt Witch", "length": 28, "loads": [], "type": "Catamaran",
            "owner": 097823409093, "self":"https://appspot.com/boats/1234"
        "id": 5947148386438495}

        ],

 "next": "https://appspot.com/boats?limit=5&offset=5",
"Total_boats": 6}
```

Failure

```
Status: 401 Unauthorized
{"Error": "JWT is invalid"} OR {"Error": "Authorization header is missing JWT"}
```

```
Status: 405 Method Not Allowed

<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 3.2 Final//EN">
<title>405 Method Not Allowed</title>
<h1>Method Not Allowed</h1>
<p>The method is not allowed for the requested URL.</p>
```

```
Status: 406 Not Acceptable

{"Error":  "The request header 'Accept' is not application/json"}
```

Delete a Boat

Allows you to delete a boat. If the boat has loads, loads are removed, but not deleted.

```
DELETE /boats/:boat_id
```

Request

Headers

Name	Values	Required?
Authorization	User's jwt	Yes

Path Parameters

Name	Description
boat_id	ID of the boat

Request Body

None

Response

Response Header

```
Success: No header set
Failure: Content-Type: application/json or text/html,
         Allow: GET, PUT, PATCH, DELETE
```

Response Body Format

Success: JSON
Failure: JSON or HTML

Response Statuses

Outcome	Status Code	Notes
Success	204 No Content	Succeeds only if the user owns the boat (JWT).
Failure	404 Not Found	No boat with this boat_id exists
Failure	405 Method Not Allowed	Method other than GET, PUT, PATCH, or DELETE. Header (Allow) sent with GET, PUT, PATCH, DELETE

Response Examples

Success

```
Status: 204 No Content
```

Failure

```
Status: 404 Not Found
{ "Error":  "No boat with this boat_id exists" }
```

```
Status: 405 Method Not Allowed
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 3.2 Final//EN">
<title>405 Method Not Allowed</title>
<h1>Method Not Allowed</h1>
<p>The method is not allowed for the requested URL.</p>
```

Edit ALL boat details

Allows you to edit all the details of the boat. Replaces all contents with what is provided except the id associated with the boat object. Name must be unique.

PUT /boats/:boat_id

Request

Headers

Name	Values	Required?
Authorization	User's jwt	Yes
Content-Type	*/* or application/json	Yes
Accept	application/json	Yes

Path Parameters

Name	Description
boat_id	ID of the boat

Request Body

Required

Request Body Format

JSON

Request JSON Attributes

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

Request Body Example

```
{ "name": "Durnt",
  "type": "Sail Boat",
  "length": 40}
```

Response

Response Header

```
Success:
      Content-Type: application/json

Failure: Content-Type: application/json or text/html,
      Allow: GET, PUT, PATCH, DELETE
```

Response Body Format

Success: JSON
Failure: JSON or HTML

Response Statuses

Outcome	Status Code	Notes
Success	200 OK	Sends updated object
Failure	400 Bad Request	If the request is missing any of the 3 required attributes, the boat must not be created. String values are checked for symbols and will return error if present. Integers will be validated. Any additional attributes are ignored.

Failure	401 Forbidden	Authorization missing (JWT)
Failure	401 Forbidden	Authorization invalid (JWT)
Failure	401 Forbidden	User does not own the boat (JWT)
Failure	403 Forbidden	Name of the boat must be unique. Fails otherwise.
Failure	404 Not Found	No boat with this boat_id exists.
Failure	405 Method Not Allowed	Method other than GET, PUT, PATCH, or DELETE. Header (Allow) sent with GET, PUT, PATCH, DELETE
Failure	406 Not Acceptable	Client wants a media type other than json.Request body and 'accept' header are checked to make sure it is json.
Failure	415 Unsupported Media Type	Client sends an unsupported media type to the server or Content-Type does not equal application/json.

Response Examples

Success

```
Status: 200 Ok
{ "id": 123, "name": "Durnt", "type": "Sail Boat", "length": 40, "loads: [],
   "owner": 097823409872, "self":"https://appspot.com/boats/1234"}
```

Failure

```
Status: 400 Bad Request
{"Error": "The request object is missing at least one of the required attributes"}
                                    OR
{"Error":  "The request object has at least one invalid value assigned to an
attribute"}
```

```
Status: 401 Unauthorized
{"Error": "JWT is invalid"} OR {"Error": "Authorization header is missing JWT"} OR
{"Error": "The boat is owned by another user"}
```

```
Status: 403 Forbidden
{"Error": "There is already a boat with that name"}
```

```
Status: 404 Not Found
{  "Error":  "No boat with this boat_id exists" }
```

```
Status: 405 Method Not Allowed
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 3.2 Final//EN">
<title>405 Method Not Allowed</title>
<h1>Method Not Allowed</h1>
<p>The method is not allowed for the requested URL.</p>
```

```
Status: 406 Not Acceptable
{"Error": "The request header 'Accept' is not application/json"}
```

```
Status: 415 Unsupported Media Type
```

{"Error": "The request header 'content_type' is not application/json and/or the sent request body does not contain json"}

Edit SOME of the boat details

Allows you to edit all or some of the details of the boat. Name must be unique..

PATCH /boats/:boat_id

Request

Headers

Name	Values	Required?
Authorization	User's jwt	Yes
Content-Type	*/* or application/json	Yes
Accept	application/json	Yes

Path Parameters

Name	Description
boat_id	ID of the boat

Request Body

Required

Request Body Format

JSON

Request JSON Attributes: [Note] At least one of the attributes below must be included in the request body.

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

Request Body Example

```
{ "name": "Turnt",
  "length": 42}
```

Response

```
Success: No header set
Failure: Content-Type: application/json or text/html,
        Allow: GET, PUT, PATCH, DELETE
```

Response Body Format

Success: JSON

Failure: JSON or HTML

Response Statuses

Outcome	Status Code	Notes
Success	200 OK	Sends updated object
Failure	400 Bad Request	If the request is missing any of the 3 required attributes, the boat must not be created. String values are checked for symbols and will return error if present. Integers will be validated. Any additional attributes are ignored.

Failure	401 Forbidden	Authorization missing (JWT)
Failure	401 Forbidden	Authorization invalid (JWT)
Failure	401 Forbidden	User does not own the boat (JWT)
Failure	403 Forbidden	Name of the boat must be unique. Fails otherwise.
Failure	404 Not Found	No boat with this boat_id exists.
Failure	405 Method Not Allowed	Method other than GET, PUT, PATCH, or DELETE. Header (Allow) sent with GET, PUT, PATCH, DELETE
Failure	406 Not Acceptable	Client wants a media type other than json. Request body and 'accept' header are checked to make sure it is json.
Failure	415 Unsupported Media Type	Client sends an unsupported media type to the server or Content-Type does not equal application/json.

Response Examples

Success

Status: 200 Ok
{ "id": 123, "name": "Turnt", "type": "Sail Boat", "length": 42, "loads: [],
   "owner": 097823409872, "self":"https://appspot.com/boats/1234"}

Failure

Status: 400 Bad Request
{"Error": "The request object is missing at least one of the required attributes"}
                                OR
{"Error":   "The request object has at least one invalid value assigned to an
attribute"}

Status: 401 Unauthorized
{"Error": "JWT is invalid"} **OR** {"Error": "Authorization header is missing JWT"} **OR**
{"Error": "The boat is owned by another user"}

Status: 403 Forbidden
{"Error": "There is already a boat with that name"}

Status: 404 Not Found
{ "Error": "No boat with this boat_id exists" }

Status: 405 Method Not Allowed
```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 3.2 Final//EN">
<title>405 Method Not Allowed</title>
<h1>Method Not Allowed</h1>
<p>The method is not allowed for the requested URL.</p>
```

Status: 406 Not Acceptable
{"Error": "The request header 'Accept' is not application/json"}

Status: 415 Unsupported Media Type

{"Error": "The request header 'content_type' is not application/json and/or the sent request body does not contain json"}

Create a Load

Allows you to create a new load.

POST /loads

Request

Headers

Name	Values	Required?
Content-Type	*/* or application/json	Yes
Accept	application/json	Yes

Path Parameters

None

Request Body

Required

Request Body Format

JSON

Request JSON Attributes

Name	Description	Required?
volume	The volume that the load takes up.	Yes
item	Load description	Yes
creation _date	Date load was created ie. "10/21/2021"	Yes

Request Body Example

```
{
  "volume": 5,
  "item": "LEGO Blocks",
  "creation_date": "10/18/2020",
  "carrier": Null
}
```

Response

Response Header

```
Success:
      Content-Type: application/json

Failure: Content-Type: application/json or text/html,
      Allow: GET, POST
```

Response Body Format

Success: JSON

Failure: JSON or HTML

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. String values are checked for symbols and will return error if present. Integers will be validated. Any additional attributes are ignored.
Failure	405 Method Not Allowed	Methods other than POST or GET are used. Header (Allow) sent with POST, GET filled
Failure	406 Not Acceptable	Client wants a media type other than json.Request body and 'accept' header are checked to make sure it is json.
Failure	415 Unsupported Media Type	Client sends an unsupported media type to the server or Content-Type does not equal application/json.

Response Examples

Success

Status: 201 Created
```
{  "id": 5678, "volume": 5, "carrier": Null, "item": "LEGO Blocks",
"creation_date": "10/18/2020", "self":"https://appspot.com/loads/5678"}
```

Failure

Status: 400 Bad Request
```
{"Error":  "The request object is missing at least one of the required attributes"}
```
                                                 OR
```
{"Error":   "The request object has at least one invalid value assigned to an
attribute"}
```

Status: 401 Unauthorized
```
{"Error": "JWT is invalid"} OR {"Error": "Authorization header is missing JWT"}
```

Status: 403 Forbidden
```
{"Error": "There is already a boat with that name"}
```

Status: 405 Method Not Allowed
```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 3.2 Final//EN">
<title>405 Method Not Allowed</title>
<h1>Method Not Allowed</h1>
<p>The method is not allowed for the requested URL.</p>
```

Status: 406 Not Acceptable
```
{"Error": "The request header 'Accept' is not application/json"}
```

Status: 415 Unsupported Media Type
{"Error": "The request header 'content_type' is not application/json and/or the sent request body does not contain json"}

View a Load

Allows you to get an existing load.

GET /loads/:load_id

Request

Headers

Name	Values	Required?
Accept	application/json	Yes

Path Parameters

Name	Description
load_id	ID of the load

Request Body

None

Response

Response Header

```
Success:
        Content-Type: application/json

Failure: Content-Type: application/json or text/html,
         Allow: GET, PUT, PATCH, DELETE
```

Response Body Format

Success: JSON

Failure: JSON or HTML

Response Statuses

Outcome	Status Code	Notes
Success	200 OK	
Failure	404 Not Found	No load with this load_id exists
Failure	405 Method Not Allowed	Method other than GET, PUT, PATCH, or DELETE. Header (Allow) sent with GET, PUT, PATCH, DELETE
Failure	406 Not Acceptable	The request header 'Accept' is not application/json. Validation of header is checked.

Response Examples

Success

Status: 200 OK

```
{
  "id": 5678,
  "volume": 5,
  "carrier":
     {
       "id": 1234,
       "name": "Sea Witch",
       "self": "https://appspot.com/boats/1234"
     },
  "item": "LEGO Blocks",
  "creation_date": "10/18/2020"
  "self":"https://appspot.com/loads/5678"
}
```

Failure

Status: 404 Not Found

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

Status: 405 Method Not Allowed

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 3.2 Final//EN">
<title>405 Method Not Allowed</title>
<h1>Method Not Allowed</h1>
<p>The method is not allowed for the requested URL.</p>
```

Status: 406 Not Acceptable

```
{"Error":  "The request header 'Accept' is not application/json"}
```

View all Loads

List all the loads.

GET /loads

Request

Headers

Name	Values	Required?
Accept	application/json	Yes

Path Parameters

None

Optional Path Parameters (NOTE: If no parameters are given, a limit of 3 and offset of 0 is used.)

Limit

Offset

Request Body

None

Response

Response Header

```
Success:
      Content-Type: application/json

Failure: Content-Type: application/json or text/html,
         Allow: GET, POST
```

Response Body Format

Success: JSON

Failure: JSON or HTML

Response Statuses

Outcome	Status Code	Notes
Success	200 OK	
Failure	405 Method Not Allowed	Method other than GET and POST. Header (Allow) sent with GET, POST
Failure	406 Not Acceptable	The request header 'Accept' is not application/json. Validation of header is checked.

Response Examples

Success

```
Status: 200 OK

{"loads":

   [

     {"volume": 4, "item": "Toys", "carrier": null, "creation_date": "10/21/2021",

     "id": 4576967919665152},

     {"item": "Toys", "carrier": null, "volume": 4, "creation_date": "10/21/2021",

     "id": 4651482649460736},

     {"item": "Toys", "creation_date": "10/21/2021", "carrier": null, "volume": 4,

     "id": 4821248479592448},

     {"item": "Action figures", "carrier": null, "volume": 6, "creation_date":

"10/21/2021",

     "id": 4651482649460736},

     {"item": "Plants", "creation_date": "10/21/2021", "carrier": null, "volume": 6,

     "id": 4821248479592448}

   ],

 "self": "https://appspot.com/loads?limit=5&offset=5",

"total_boats": 6}
```

Failure

```
Status: 405 Method Not Allowed

<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 3.2 Final//EN">
<title>405 Method Not Allowed</title>
<h1>Method Not Allowed</h1>
<p>The method is not allowed for the requested URL.</p>
```

```
Status: 406 Not Acceptable

{"Error": "The request header 'Accept' is not application/json"}
```

Edit ALL load details

Allows you to edit all the details of the boat. Replaces all contents with what is provided except the id associated with the boat object. Name must be unique.

PUT /boats/:boat_id

Request

Headers

Name	Values	Required?
Content-Type	*/* or application/json	Yes
Accept	application/json	Yes

Path Parameters

Name	Description
boat_id	ID of the boat

Request Body

Required

Request Body Format

JSON

Request JSON Attributes

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

Request Body Example

```
{ "name": "Durnt",
  "type": "Sail Boat",
  "length": 40}
```

Response

Response Header

```
Success:
      Content-Type: application/json

Failure: Content-Type: application/json or text/html,
        Allow: GET, PUT, PATCH, DELETE
```

Response Body Format

Success: JSON
Failure: JSON or HTML

Response Statuses

Outcome	Status Code	Notes
Success	200 OK	Sends
Failure	400 Bad Request	If the request is missing any of the 3 required attributes, the boat must not be created. String values are checked for symbols and will return error if present. Integers will be validated. Any additional attributes are ignored.
Failure	404 Not Found	No load with this load_id exists.
Failure	405 Method Not Allowed	Method other than GET, PUT, PATCH, or DELETE. Header (Allow) sent with GET, PUT, PATCH, DELETE
Failure	406 Not Acceptable	Client wants a media type other than json. Request body and 'accept' header are checked to make sure it is json.
Failure	415 Unsupported Media Type	Client sends an unsupported media type to the server or Content-Type does not equal application/json.

Response Examples

Success

```
Status: 200 Ok
{ "id": 5678,
  "volume": 5,
  "carrier":
     {
       "id": 1234,
       "name": "Sea Witch",
       "self": "https://appspot.com/boats/1234"
     },
  "item": "LEGO Blocks",
  "creation_date": "10/18/2020"
  "self":"https://appspot.com/loads/5678"}
```

Failure

```
Status: 400 Bad Request
{"Error":  "The request object is missing at least one of the required attributes"}
                                OR
{"Error":   "The request object has at least one invalid value assigned to an
attribute"}
```

```
Status: 404 Not Found
{  "Error":  "No boat with this boat_id exists" }
```

```
Status: 405 Method Not Allowed
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 3.2 Final//EN">
<title>405 Method Not Allowed</title>
<h1>Method Not Allowed</h1>
<p>The method is not allowed for the requested URL.</p>
```

```
Status: 406 Not Acceptable
{"Error": "The request header 'Accept' is not application/json"}
```

> Status: 415 Unsupported Media Type
> {"Error": "The request header 'content_type' is not application/json and/or the sent request body does not contain json"}

Edit SOME of the load details

Allows you to edit all or some of the details of the boat. Name must be unique..

```
PATCH  /boats/:boat_id
```

Request

Headers

Name	Values	Required?
Content-Type	*/* or application/json	Yes
Accept	application/json	Yes

Path Parameters

Name	Description
boat_id	ID of the boat

Request Body

Required

Request Body Format

JSON

Request JSON Attributes: [Note] At least one of the attributes below must be included in the request body.

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

Request Body Example

```
{ "creation_date": "10/18/2022",
  "volume": 5}
```

Response

Response Header

```
Success:
      Content-Type: application/json

Failure: Content-Type: application/json or text/html,
        Allow: GET, PUT, PATCH, DELETE
```

Response Body Format

Success: JSON
Failure: JSON or HTML

Response Statuses

Outcome	Status Code	Notes
Success	200 OK	Sends
Failure	400 Bad Request	If the request is missing any of the 3 required attributes, the boat must not be created. String values are checked for symbols and will return error if present. Integers will be validated. Any additional attributes are ignored.
Failure	404 Not Found	No load with this load_id exists.
Failure	405 Method Not Allowed	Method other than GET, PUT, PATCH, or DELETE. Header (Allow) sent with GET, PUT, PATCH, DELETE
Failure	406 Not Acceptable	Client wants a media type other than json.Request body and 'accept' header are checked to make sure it is json.
Failure	415 Unsupported Media Type	Client sends an unsupported media type to the server or Content-Type does not equal application/json.

Response Examples

Success

```
Status: 200 Ok
{ "id": 5678,
   "volume": 5,
   "carrier":
      {
        "id": 1234,
        "name": "Sea Witch",
        "self": "https://appspot.com/boats/1234"
      },
   "item": "LEGO Blocks",
   "creation_date": "10/18/2022"
   "self":"https://appspot.com/loads/5678"}
```

Failure

```
Status: 400 Bad Request
{"Error":  "The request object is missing at least one of the required attributes"}
                              OR
{"Error":   "The request object has at least one invalid value assigned to an
attribute"}
```

```
Status: 404 Not Found
{  "Error":  "No boat with this boat_id exists" }
```

```
Status: 405 Method Not Allowed
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 3.2 Final//EN">
<title>405 Method Not Allowed</title>
<h1>Method Not Allowed</h1>
<p>The method is not allowed for the requested URL.</p>
```

```
Status: 406 Not Acceptable
{"Error": "The request header 'Accept' is not application/json"}
```

Status: 415 Unsupported Media Type {"Error": "The request header 'content_type' is not application/json and/or the sent request body does not contain json"}

Delete a Load

Allows you to delete a load. If the load being deleted is in a boat, the boat is updated as well to now not have the load.

DELETE /loads/:load_id

Request

Headers

None

Path Parameters

Name	Description
load_id	ID of the load

Request Body

None

Response

Response Header

```
Success:
        No body

Failure: Content-Type: application/json or text/html,
        Allow: GET, PUT, PATCH, DELETE
```

Response Body Format

Success: No body
Failure: JSON or HTML

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" }

Status: 405 Method Not Allowed

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 3.2 Final//EN">
<title>405 Method Not Allowed</title>
<h1>Method Not Allowed</h1>
<p>The method is not allowed for the requested URL.</p>
```

View all Loads for a given Boat owned by User

GET /:boat_id/loads

Request

Headers

Name	Values	Required?
Authorization	User's jwt	Yes
Accept	application/json	Yes

Path Parameters

Name	Description
boat_id	ID of the boat

Request Body
None

Response

Response Header
Success:
        No body

Failure: Content-Type: application/json or text/html,
        Allow: GET

Response Body Format
Success: JSON
Failure: JSON or HTML

Response Statuses

Outcome	Status Code	Notes
Success	200 OK	Succeeds only if a boat exists with this boat_id, a load exists with this load_id, and the user owns boat (JWT).
Failure	401 Forbidden	Authorization missing (JWT)
Failure	401 Forbidden	Authorization invalid (JWT)
Failure	401 Forbidden	User does not own the boat (JWT)
Failure	404 Not Found	No boat with this boat_id exists.
Failure	405 Method Not Allowed	Method other than GET. Header (Allow) sent with GET.
Failure	406 Not Acceptable	Client wants a media type other than json. Request body and 'accept' header are checked to make sure it is json.

Response Examples

Success

Status: 200 OK
{"self": "https://perezjos-project.uw.r.appspot.com/boats/5035022323023872",
 "loads":
      [{"id": "6371213190365184","self":
       "https://perezjos-project.uw.r.appspot.com/loads/6371213190365184"},
         {"self": "https://perezjos-project.uw.r.appspot.com/loads/6610580039270400",
          "id": "6610580039270400"},
         {"id": "5212688443506688",
          "self": "https://perezjos-project.uw.r.appspot.com/loads/5212688443506688"},
         {"id": "4906279973683200",
          "self": "https://perezjos-project.uw.r.appspot.com/loads/4906279973683200"},
         {"id": "6338588350349312",
          "self": "https://perezjos-project.uw.r.appspot.com/loads/6338588350349312"}
      ]
}

Failure

Status: 401 Unauthorized
{"Error": "JWT is invalid"} **OR** {"Error": "Authorization header is missing JWT"} **OR**
{"Error": "The boat is owned by another user"}

Status: 404 Not Found
{ "Error": " No boat with this boat_id exists" }

Status: 405 Method Not Allowed

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 3.2 Final//EN">
<title>405 Method Not Allowed</title>
<h1>Method Not Allowed</h1>
<p>The method is not allowed for the requested URL.</p>
```

Status: 406 Not Acceptable

{"Error": "The request header 'Accept' is not application/json"}

Managing Loads - Load a Boat owned by User

Boat is loaded with a specific load.

PUT /:boat_id/loads/:load_id

Request

Headers

Name	Values	Required?
Authorization	User's jwt	Yes
Content-Type	*/* or application/json	Yes

Path Parameters

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

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 or HTML

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, the load is already on the specified boat , and the user owns boat (JWT).
Failure	401 Forbidden	Authorization missing (JWT)
Failure	401 Forbidden	Authorization invalid (JWT)
Failure	401 Forbidden	User does not own the boat (JWT)
Failure	403 Forbidden	The load is already loaded on another boat.
Failure	404 Not Found	The specified boat and/or load does not exist
Failure	405 Method Not Allowed	Method other than PUT and DELETE. Header (Allow) sent with PUT, DELETE.

Response Examples

Success

Status: 204 No Content

Failure

Status: 401 Unauthorized
{"Error": "JWT is invalid"} **OR** {"Error": "Authorization header is missing JWT"} **OR**
{"Error": "The boat is owned by another user"}

Status: 403 Forbidden

{ "Error": "The load is already loaded on another boat" }

Status: 404 Not Found

{ "Error": "The specified boat and/or load does not exist" }

Status: 405 Method Not Allowed

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 3.2 Final//EN">
<title>405 Method Not Allowed</title>
<h1>Method Not Allowed</h1>
<p>The method is not allowed for the requested URL.</p>
```

Managing Loads - Remove Load from Boat owned by User

Boat is emptied of specified load.

DELETE /:boat_id/loads/:load_id

Request

Headers

Name	Values	Required?
Authorization	User's jwt	Yes
Content-Type	*/* or application/json	Yes

Path Parameters

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

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, the load is already on the specified boat , and the user owns boat (JWT).
Failure	401 Forbidden	Authorization missing (JWT)
Failure	401 Forbidden	Authorization invalid (JWT)
Failure	401 Forbidden	User does not own the boat (JWT)
Failure	403 Forbidden	The load is already loaded on another boat.
Failure	404 Not Found	The specified boat and/or load does not exist
Failure	405 Method Not Allowed	Method other than PUT and DELETE. Header (Allow) sent with PUT, DELETE.

Response Examples

Success

Status: 204 No Content

Failure

Status: 401 Unauthorized
{"Error": "JWT is invalid"} **OR** {"Error": "Authorization header is missing JWT"} **OR**
{"Error": "The boat is owned by another user"}

Status: 403 Forbidden

{ "Error": "The load is already loaded on another boat" }

Status: 404 Not Found

{ "Error": "The specified boat and/or load does not exist" }

Status: 405 Method Not Allowed

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 3.2 Final//EN">
<title>405 Method Not Allowed</title>
<h1>Method Not Allowed</h1>
<p>The method is not allowed for the requested URL.</p>
```

View all registered Users

Allows you to view all the users that have an account and can access the boat/load APIs

GET /users

Request

Headers

Name	Values	Required?
Accept	application/json	Yes

Path Parameters

None

Optional Path Parameters (NOTE: If no parameters are given, a limit of 3 and offset of 0 is used.)

Limit

Offset

Request Body

None

Response

Response Header

```
Success:
      Content-Type: application/json

Failure: Content-Type: application/json or text/html,
        Allow: GET, POST
```

Response Body Format

Success: JSON

Failure: JSON or HTML

Response Statuses

Outcome	Status Code	Notes
Success	200 OK	
Failure	405 Method Not Allowed	Method other than GET and POST. Header (Allow) sent with GET, POST
Failure	406 Not Acceptable	The request header 'Accept' is not application/json. Validation of header is checked.

Response Examples

Success

```
Status: 200 OK

{
    "self": "https://perezjos-project.uw.r.appspot.com/users",
    "users": [
        {
            "first": "Johny",
            "sub": "105603738825104311229",
            "last": "Depp"
        },
        {
            "first": "Mufasa",
            "last": "King",
            "sub": "114691725122060526823"
        },
        {
            "first": "Pumba",
            "last": "Timon",
            "sub": "117382626436356195644"
        }
    ]
}
```

Failure

```
Status: 405 Method Not Allowed

<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 3.2 Final//EN">
<title>405 Method Not Allowed</title>
<h1>Method Not Allowed</h1>
<p>The method is not allowed for the requested URL.</p>
```

```
Status: 406 Not Acceptable

{"Error": "The request header 'Accept' is not application/json"}
```