Marina Documentation and Endpoints
https://marblek-project.uc.r.appspot.com/

Last Update: November 30, 2020 11:14 am EST

Change log

Page	Change	Date
	Initial version.	M, Nov 30

Data Model

Boat

Property Name	Notes
id	String. The id of the boat. Datastore automatically generates it.
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
public	Boolean. Whether or not the boat is viewable from an unprotected endpoint
owner	String. The uuid of the User that owns this Boat
loads	Array. List of Load objects currently on Boat (1:M relationship)

Load

Property Name	Notes
id	String. The id of the load. Datastore automatically generates it.
weight	Integer. The weight of the load
content	String. The contents of the load
delivery_date	String. The estimated delivery date of the load
current_boat	String. The ID of the boat that the load is currently on (1:M relationship)

User

Property Name	Notes
id	String. The Datastore id of the user. Datastore automatically generates it.
uuid	String. User's unique ID. Equal to the "sub" value of their JWT

Create a User

Authorize the Marina to use your Google credentials as a login

Access https://marblek-project.uc.r.appspot.com/ via a browser to authorize access to Google account

Get all Users

GET /users

Request
Request Parameters
None

Request Body

None
Request Headers
None

Response
Response MIME Types
Application/json
Response Body Format
JSON

Response Statuses

Outcome	Status Code	Notes
Success	200 OK	
Failure	400 Bad Request	If the request is missing any of the 3 required attributes, the boat must not be created, and 400 status code must be returned.
Failure	403 Forbidden	The name provided is not unique
Failure	405 Method Not Allowed	Client sent a PUT or DELETE request, which is unsupported for this endpoint
Failure	406 Not Acceptable	Client requested a content type not supported

Response Examples
Success

Status: 200 OKmarblek-project.uc.r.appspot.com

```
{
    "id": "abc123",
    "uuid": "55af1e37-0734-46d8-b070-a1e42e4fc392",
    "self": "https://marblek-project.uc.r.appspot.com/boats/abc123"
}
```

Create a Boat

Protected Route
Allows you to create a new boat.

```
POST /boats
```

Request
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
owner	String	The UUID of the User that owns this Boat	Yes
public	Boolean	Whether or not the boat is viewable from unprotected endpoints	Yes
loads	Array	A list of Load IDs that are currently on the boat. Will be undefined if a boat is created with no loads	No

Request Headers

Name	Type	Description	Required?
Authorization	String	"Bearer <token>". Valid JWT for owner of Boat	Yes

Request Body Example

```
{
    "name": "Sea Witch",
    "type": "Catamaran",
    "length": 28,
    "public": false,
    "owner": "55af1e37-0734-46d8-b070-a1e42e4fc392"
}
```

Response
Response MIME Types
Application/json
Response Body Format
JSON

Response Statuses

Outcome	Status Code	Notes
Success	201 Created	
Failure	400 Bad Request	If the request is missing any of the 3 required attributes, the boat must not be created, and 400 status code must be returned.
Failure	403 Forbidden	The name provided is not unique
Failure	405 Method Not Allowed	Client sent a PUT or DELETE request, which is unsupported for this endpoint
Failure	406 Not Acceptable	Client requested a content type not supported

Response Examples

Success

```
Status: 201 Created

{
   "id": "abc123",
   "name": "Sea Witch",
  "type": "Catamaran",
   "length": 28,
   "public": false,
  "owner": "55af1e37-0734-46d8-b070-a1e42e4fc392"
  "loads":[
{"id":"123abc",
  "self":"https://marblek-project.uc.r.appspot.com/loads/123abc"},
  {"id":"456",
  "self":"https://marblek-project.uc.r.appspot.com/loads/456"}
  ],
    "self": "https://marblek-project.uc.r.appspot.com/boats/abc123"
}
```

Failure

```
Status: 400 Bad Request

{
"Error":  "The request object is missing at least one of the required attributes, or they are invalid"
}
```

```
Status: 403 Forbidden

{
"Error":  "The supplied name is already in use"
}
```

```
Status: 405 Method Not Allowed

{
"Error":  "Unsupported method called on endpoint"
}
```

Status: 406 Not Acceptable
{
"Error": "Requested a content type that is not supported"
}

Get a Boat

Public Route
Allows you to get an existing boat

GET /boats/:boat_id

Request

Request Parameters

Name	Type	Description	Required?
boat_id	String	ID of the boat	Yes

Request Body
None

Response
Response MIME Types
Application/json
Response Body Format
JSON

Response Statuses

Outcome	Status Code	Notes
Success	200 OK	
Failure	404 Not Found	No boat with this boat_id exists
Failure	406 Not Acceptable	Client requested a content type not supported

Response Examples

Success

```
Status: 200 OK

{
   "id": "abc123",
   "name": "Sea Witch",
  "type": "Catamaran",
   "length": 28,
  "public": false,
  "owner": "55af1e37-0734-46d8-b070-a1e42e4fc392"
 "loads":[
{"id":"123abc",
  "self":"https://marblek-project.uc.r.appspot.com/loads/123abc"},
 {"id":"456",
  "self":"https://marblek-project.uc.r.appspot.com/loads/456"}
 ],
   "self": "https://marblek-project.uc.r.appspot.com/boats/abc123"
}
```

Failure

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

Status: 406 Not Acceptable
 	
{
"Error": "Requested a content type that is not supported"
}

List all Boats

Public/Protected Route
List all the boats in pages of 5. Uses offset/limit pagination. If Authorization token is provided in request, then only the boats associated with that User will be shown. If no Authorization token is provided, then all public, unowned boats will be returned

```
GET /boats?limit=x&offset=y
```

Request
Request Parameters

Name	Type	Description	Required?
Limit	Integer	The maximum number of resources to return per request	Yes
Offset	Integer	The number of results to skip before returning	Yes

Request Headers

Name	Type	Description	Required?
Authorization	String	"Bearer <token>". Valid JWT for owner of Boat	No

Request Body
None

Response
Response Body Format
JSON

Response Statuses

Outcome	Status Code	Notes
Success	200 OK	Returns 5 boats per page, with a link to next page if applicable
Failure	406 Not Acceptable	Client requested a content type not supported

Response Examples
Success

Status: 200 OK

```json
{
  "boats": [
  {
    "id": "abc123",
    "name": "Sea Witch",
   "type": "Catamaran",
    "length": 28,
    "public": false,
   "owner": "55af1e37-0734-46d8-b070-a1e42e4fc392"
   "loads":[
    {"id":"123abc",
     "self":"https://marblek-project.uc.r.appspot.com/loads/123abc"},
    {"id":"456",
     "self":"https://marblek-project.uc.r.appspot.com/loads/456"}
   ],
      "self": "https://marblek-project.uc.r.appspot.com/boats/abc123"
  },
  {
   "id": "def456",
   "name": "Adventure",
   "type": "Sailboat",
   "length": 50,
    "public": false,
   "owner": "55af1e37-0734-46d8-b070-a1e42e4fc392"
   "loads":[
    {"id":"123cdf",
     "self":"https://marblek-project.uc.r.appspot.com/loads/123cdf"},
     {"id":"789",
     "self":"https://marblek-project.uc.r.appspot.com/loads/789"}
   ],
      "self": "https://marblek-project.uc.r.appspot.com/boats/def456"
  },
  {
    "id": "xyz123",
   "name": "Hocus Pocus",
    "type": "Sailboat",
    "length": 100,
    "public": false,
    "owner": "55af1e37-0734-46d8-b070-a1e42e4fc392"
    "loads":[
   {"id":"123ghi",
     "self":"https://marblek-project.uc.r.appspot.com/loads/123ghi"},
     {"id":"324",
     "self":"https://marblek-project.uc.r.appspot.com/loads/324"}
   ],
      "self": "https://marblek-project.uc.r.appspot.com/boats/xyz123"
  },
```

Failure

Status: 406 Not Acceptable

{
"Error": "Requested a content type that is not supported"
}

Delete a Boat

Protected Route
Allows you to delete a boat. Note that if the boat has any loads, they will be unloaded upon deletion of boat.

DELETE /boats/:boat_id

Request
Request Parameters
None

Request Headers

Name	Type	Description	Required?
Authorization	String	"Bearer <token>". Valid JWT for owner of Boat	Yes

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 boat with this boat_id exists

Response Examples

Success

Status: 204 No Content

Failure

```
Status: 404 Not Found

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

Edit a Boat (PATCH)

Protected Route

PATCH /boats/:boat_id

Request

Request MIME Types

Application/json

Request Parameters

Name	Type	Description	Required?
boat_id	String	ID of the boat	Yes

Request Headers

Name	Type	Description	Required?
Authorization	String	"Bearer <token>". Valid JWT for owner of Boat	Yes

Request Body

Request JSON Attributes

At least one attribute is required

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
public	Boolean	Whether or not the boat is viewable from unprotected endpoints	No
owner	String	The UUID of the User that owns this Boat	No

Request Body Example

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

Response

Response MIME Types

Application/json

Response Body Format

JSON

Response Statuses

Outcome	Status Code	Notes
Success	200 OK	Entity successfully updated
Failure	400 Bad Request	If the request is missing all attributes or they are invalid
Failure	403 Forbidden	The name provided is not unique
Failure	404 Not Found	No boat with this boat_id exists

Failure	406 Not Acceptable	Client requested a content type not supported
Failure	415 Unsupported Media Type	Client sent an unsupported media type

Response Examples

Success

```
Status: 200 OK

{
   "id": "abc123",
   "name": "Sea Witch",
   "type": "Catamaran",
   "length": 28,
   "owner": "55af1e37-0734-46d8-b070-a1e42e4fc392"
   "self": Error! Hyperlink reference not valid.,
   "loads":[
   {"id":"123abc",
     "self":"https://marblek-project.uc.r.appspot.com/loads/123abc"},
    {"id":"456",
     "self":"https://marblek-project.uc.r.appspot.com/loads/456"}
   ],
}
```

Failure

```
Status: 400 Bad Request

{
"Error":  "The request object is missing at least one of the required attributes, or they are invalid"
}
```

```
Status: 403 Forbidden

{
"Error":  "The supplied name is already in use"
}
```

```
Status: 404 Not Found

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

```
Status: 406 Not Acceptable

{
"Error":  "Requested a content type that is not supported"
}
```

```
Status: 415

{
"Error":  "Request includes an unsupported media type"
}
```

Edit a Boat (PUT)

Protected Route

PUT /boats/:boat_id

Request

Request MIME Types

Application/json

Request Parameters

Name	Type	Description	Required?
boat_id	String	ID of the boat	Yes

Request Headers

Name	Type	Description	Required?
Authorization	String	"Bearer <token>". Valid JWT for owner of Boat	Yes

Request Body

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
public	Boolean	Whether or not the boat is viewable from unprotected endpoints	Yes
owner	String	The UUID of the User that owns this Boat	Yes

Request Body Example

```
{
    "name": "Sea Witch",
    "type": "Sailboat",
    "length": 28,
    "public": false,
    "owner": "55af1e37-0734-46d8-b070-a1e42e4fc392"
}
```

Response

Response MIME Types

Application/json

Response Body Format

JSON

Response Headers

Name	Description
Location	Upon successful edit, this header will contain the location of the new entity. Can use a GET request on this location to see edited entity

Response Statuses

Outcome	Status Code	Notes
Success	303 See Other	Entity successfully updated
Failure	400 Bad Request	If the request is missing any attribute, or they are invalid
Failure	403 Forbidden	The name provided is not unique
Failure	404 Not Found	No boat with this boat_id exists
Failure	406 Not Acceptable	Client requested a content type not supported
Failure	415 Unsupported Media Type	Client sent an unsupported media type

Response Examples

Success

Status: 303 See Other

```
{
    "self": "https://marblek-project.uc.r.appspot.com/boats/abc123"
}
```

Failure

Status: 400 Bad Request

```
{
"Error":  "The request object is missing at least one of the required attributes, or they are invalid"
}
```

Status: 403 Forbidden

```
{
"Error":  "The supplied name is already in use"
}
```

Status: 404 Not Found

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

Status: 406 Not Acceptable

```
{
"Error":  "Requested a content type that is not supported"
}
```

Status: 415

```
{
"Error":  "Request includes an unsupported media type"
}
```

Create a Load

Public Route
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 contents of the load	Yes
delivery_date	String	The estimated delivery date of the load	Yes

Request Body Example

```
{
  "weight": 5,
  "content": "LEGO Blocks",
  "delivery_date": "10/31/2020"
}
```

Response
Response Body Format
JSON

Response Statuses

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

Response Examples
     All newly created loads will begin unassigned to any boat

Success

Status: 201 Created

```
{
 "id": "123abc",
  "weight": 5,
 "content": "LEGO Blocks",
 "delivery_date": "10/31/2020",
  "current_boat": null,
  "self": "https://marblek-project.uc.r.appspot.com/loads/123abc"
}
```

Failure

Status: 400 Bad Request

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

Edit a Load (PATCH)

Public Route
Allows you to edit 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 contents of the load	No
delivery_date	String	The estimated delivery date of the load	No
current_boat	String	The boat ID that the load is associated with. Will be undefined if load created without it at first	No

Request Body Example

```
{
  "weight": 5,
  "content": "LEGO Blocks",
  "delivery_date": "10/31/2020"
}
```

Response

Response Body Format
JSON

Response Statuses

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

Success

Status: 201 Created

```
{
 "id": "123abc",
  "weight": 5,
 "content": "LEGO Blocks",
 "delivery_date": "10/31/2020",
  "current_boat": "fdc123",
   "self": "https://marblek-project.uc.r.appspot.com/loads/123abc"
}
```

Failure

Status: 400 Bad Request

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

Edit a Load (PUT)

Public Route
Allows you to edit 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 contents of the load	Yes
delivery_date	String	The estimated delivery date of the load	Yes
current_boat	String	The boat ID that the load is associated with. Will be undefined if load created without it at first	Yes

Request Body Example

```
{
  "weight": 5,
  "content": "LEGO Blocks",
  "delivery_date": "10/31/2020",
  "current_boat": "fdc123",
}
```

Response
Response MIME Types
Application/json

Response Body Format
JSON

Response Headers

Name	Description
Location	Upon successful edit, this header will contain the location of the new entity. Can use a GET request on this location to see edited entity

Response Statuses

Outcome	Status Code	Notes
Success	303 See Other	Entity successfully updated
Failure	400 Bad Request	If the request is missing any attribute, or they are invalid
Failure	403 Forbidden	The name provided is not unique
Failure	404 Not Found	No boat with this boat_id exists
Failure	406 Not Acceptable	Client requested a content type not supported
Failure	415 Unsupported Media Type	Client sent an unsupported media type

Response Examples

Success

```
Status: 303 See Other

{
    "self": "https://marblek-project.uc.r.appspot.com/boats/abc123"
}
```

Failure

```
Status: 400 Bad Request

{
"Error":  "The request object is missing at least one of the required attributes, or they are invalid"
}
```

```
Status: 403 Forbidden

{
"Error":  "The supplied name is already in use"
}
```

```
Status: 404 Not Found

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

```
Status: 406 Not Acceptable

{
"Error":  "Requested a content type that is not supported"
}
```

```
Status: 415

{
"Error":  "Request includes an unsupported media type"
}
```

Get a Load

Public Route
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

Response Examples
Success

```
Status: 200 OK

{
 "id": "123abc",
  "weight": 5,
 "content": "LEGO Blocks",
 "delivery_date": "10/31/2020",
 "current_boat": "fdc123",
   "self": "https://marblek-project.uc.r.appspot.com/loads/123abc"
}
```

Failure

```
Status: 404 Not Found

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

List all Loads

Public Route
List all the loads in pages of 5. Uses offset/limit pagination.

GET /loads?limit=x&offset=y

Request

Request Parameters

Name	Type	Description	Required?
Limit	Integer	The maximum number of resources to return per request	Yes
Offset	Integer	The number of results to skip before returning	Yes

Request Body
None

Response

Response Body Format
JSON

Response Statuses

Outcome	Status Code	Notes
Success	200 OK	Returns 5 loads per page, with a link to next page if applicable

Response Examples

Success

Status: 200 OK

{
 "loads": [
 {
 "id": "123abc",
  "weight": 5,
 "content": "LEGO Blocks",
 "delivery_date": "10/31/2020",
 "current_boat": "fdc123",
   "self": "https://marblek-project.uc.r.appspot.com/loads/123abc"
 },
 {
  "id": "123cdf",
  "weight": 10,
  "content": "Red Bricks",
  "delivery_date": "10/31/2020"
  "current_boat": "fdc456",
  "self": "https://marblek-project.uc.r.appspot.com/loads/123cdf"
 },
 {
 "id": "123ghi",
  "weight": 2,
 "content": "Socks",
 "delivery_date": "10/31/2020"
 "current_boat": "fdc789",
  "self": "https://marblek-project.uc.r.appspot.com/loads/123ghi"
 },
 ]
"offset": 3,
"limit": 3,
"count": 3,
"next": "https://marblek-project.uc.r.appspot.com/boats/?limit=3&offset=6"
}

Delete a Load

Public Route
Allows you to delete a load. If the load being deleted is on a boat, the boat carrying it will be updated.

```
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"
}
```

Add a Load to a Boat

Public Route

PUT /boats/:boat_id/loads/:load_id

Request
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, a load exists with this load_id and the load is empty.
Failure	403 Forbidden	There is already a boat assigned to this load.
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: 403 Forbidden
 	
{
"Error": "The load is already assigned to another boat_id"
}

Status: 404 Not Found
 	
{
"Error": "The specified boat and/or load does not exist"
}

Comment
        A load cannot be assigned to multiple boats.

Remove Load from Boat

Public Route

DELETE /boats/:boat_id/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	Succeeds only if a boat exists with this boat_id, a load exists with this load_id and this load is at this boat.
Failure	404 Not Found	No boat with this boat_id is at the load with this load_id.

Response Examples

Success

Status: 204 No Content

Failure

Status: 404 Not Found
 	
{
"Error": "No load with this load_id is at the boat with this boat_id"
}