Assignment 5: API Spec

CS 493
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App site: https://boat-out-of-water.uw.r.appspot.com

Create a Boat

Allows you to create a new boat. Only accepts application/JSON MIME type and can respond with application/JSON.

POST /boats

Request

Request Parameters

None

Request Body

Required

Request Body Format

JSON

Request JSON Attributes

Name	Type	Description	Required?
name	String	Name of the boat	Yes
type	String	Type of boat	Yes
length	Integer	Size of boat	Yes

Request Body Example:

```
{
        "id": 5702867826507776,
        "length": 2001,
        "name": "Odd",
        "self": "http://127.0.0.1:8080/boats/5702867826507776",
        "type": "Measdfga Yatch"
}
```

Response

Response Body Format

JSON or HTML

Response Status

Outcome	Status Code	Notes
Success	201 Created	
Failure	400 Bad Request	- Request object is missing at least one of the required attributes - Name cannot be longer than 16 characters. It can also only contain letters of the alphabet - Type cannot be longer than 16 characters. It can also only contain letters of the alphabet - Length can't be longer than 7 digits. It can also only contain numbers
Failure	403 Forbidden	Boat name is not unique
Failure	415 Unsupported Media Type	Server does not support MIME type sent by client. Has to be in JSON.

Response Examples

- Datastore will generate an ID and store it with the entity created. This value needs to be sent with the response body in below example.
- 'self' attribute with contain live like to REST resource corresponding to the boat (the url of the boat). The 'self' attribute is not stored in Datastore.

Success

Status: 201 Created
```
{
    "id": 4858442896375808,
    "length": 28,
    "name": "Sea Food Time",
    "self": "http://127.0.0.1:8080/boats/4858442896375808",
    "type": "Catamaran"
}
```

Failure

400 Bad Request
```
{
    "Error": "Name cannot be longer than 16 characters. It can also only contain let
ters of the alphabet"
}
```
OR
```
{
    "Error": "The request object is missing at least one of the required attributes"
}
```
OR
```
{
    "Error": "Type cannot be longer than 16 characters. It can also only contain let
ters of the alphabet"
}
```
OR
```
{
    "Error": "Length cant be longer than 7 digits. It can also only contain numbers"
}
```

Status: 403 Forbidden
```
{
    "Error": "Name must be unique"
}
```

Status: 415 Unsupported Media Type

Get a Boat

Allows you to get an existing boat. Only accepts application/JSON MIME type and can respond with application/JSON or text/HTML MIME type.

GET /boats/:boat_id

Request

Request Parameters

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

Request Body

None

Response

Response Body Format

HTML or JSON

Response Body Example

```html
<table border="1">
    <tr>
        <th>type</th>
        <td>Catamaran</td>
    </tr>
    <tr>
        <th>length</th>
        <td>28</td>
    </tr>
    <tr>
        <th>name</th>
        <td>Sea Food Time</td>
    </tr>
    <tr>
        <th>id</th>
        <td>6697899811405824</td>
    </tr>
    <tr>
        <th>self</th>
        <td>http://127.0.0.1:8080/boats/6697899811405824</td>
    </tr>
</table>
```

```json
{
    "id": "6697899811405824",
    "length": 28,
    "name": "Sea Food Time",
    "self": "http://127.0.0.1:8080/boats/6697899811405824",
    "type": "Catamaran"
}
```

Response Statuses

Outcome	Status Code	Notes
Success	200 OK	
Failure	404	• No Boat with ID
Failure	406	• Not supported MIME type (not JSON or HTML)

Response Statuses

Success

```
Status: 200 OK
{
    "id": 5292161041956864,
    "length": 28,
    "name": "Ocean World Bye",
    "self": "http://127.0.0.1:8080/boats/5292161041956864",
    "type": "Catamaran"
},
{
    "id": 5843605314863104,
    "length": 28,
    "name": "Sea Food Time",
    "self": "http://127.0.0.1:8080/boats/5843605314863104",
    "type": "Catamaran"
}
```

Failure

```
Status: 404 Not Found
{
"Error": "No boat with this boat_id exists"
}
```
```
Status: 406 Not Acceptable
```

List all Boat

Allows you to get all boats. Only accepts application/JSON MIME type and can respond with application/JSON or text/HTML MIME type.

GET /boats

Request

Request Parameters

None

Request Body

None

Response

Response Body Format

HTML/JSON

Response Body Example

```html
<table border="1">
    <thead>
        <tr>
            <th>type</th>
            <th>name</th>
            <th>length</th>
        </tr>
    </thead>
    <tbody>
        <tr>
            <td>Measdfga Yatch</td>
            <td>Odd</td>
            <td>2001</td>
        </tr>
    </tbody>
</table>
```

```json
{
        "id": 5702867826507776,
        "length": 2001,
        "name": "Odd",
        "self": "http://127.0.0.1:8080/boats/5702867826507776",
        "type": "Measdfga Yatch"
}
```

Response Statuses

Outcome	Status Code	Notes
Success	200 OK	

Response Statuses

Success

```
Status: 200 OK
[
{
        "id": 5428878440923136,
        "length": 28,
        "name": "Ocean World Bye",
```

```json
        "self": "http://127.0.0.1:8080/boats/5428878440923136",
        "type": "Catamaran"
},
{

        "id": 6350175903678464,
        "length": 28,
        "name": "Sea Food Time",
        "self": "http://127.0.0.1:8080/boats/6350175903678464",
        "type": "Catamaran"
}
]
```

Edit a Boat

Allows you to edit a boat. Only accepts application/JSON MIME type and can respond with application/JSON.

PATCH /boats/:boat_id

Request

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	Name of the boat	Yes
type	string	Type of boat	Yes
length	integer	Length of boat in ft	Yes

Request Body Example

```
{
  "name": "Odyssey II",
  "type": "Mega Yatch",
  "length": 200
}
```

Response

Response Body Format

JSON

Response Statuses

Outcome	Status Code	Notes
Success	200 OK	
Failure	400 Bad Request	• Name must be string and less than 16 characters. • Type must be string and less than 16 characters. • Length can't be longer than 7 digits and must be integer.
Failure	403	• Name must be unique
Failure	404 Not Found	• boat_id is wrong
Failure	415 Unsupported Media Type	• Only accept JSON

Response Example

- The 'self' will contain the link to the resource corresponding to the boat. The 'self' is not stored in the Datastore.

Success

```
Status: 200 OK
{
  "name": "Odyssey II",
  "type": "Mega Yatch",
  "length": 200
}
```

Failure

```
Status: 400 Bad Request
{
    "Error": "Missing at least one of the required attributes"
}
OR
{
    "Error": "Name cannot be longer than 16 characters. It can also only contain let
ters of the alphabet"
}
OR
{
    "Error": "Type cannot be longer than 16 characters. It can also only contain let
ters of the alphabet"
}
OR
{
    "Error": "Length must be integer"
}
OR
{
    "Error": "no need for id it is same"
}
```

```
Status: 403 Name not Unique
{
    "Error": "Name must be unique"
}
```

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

Status: 415 Unsupported Media Type

Delete a Boat

Allows you to delete a boat. Only accepts application/JSON MIME type and can respond with application/JSON MIME type.

DELETE /boats/:boat_id

Request

Request Parameters

None

Request Body

None

Response

Response Body Format

Success: No Body
Failure: JSON Error

Response Status

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

Response Example

Success

Status: 204 No Content

Failure

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

Edit a Boat

Allows you to delete a boat. Only accepts application/JSON MIME type and can respond with application/JSON MIME type.

PUT /boats/:boat_id

Request

Request Parameters

None

Request Body

Required

Request Body Format

JSON

Response JSON Attributes

Name	Type	Description	Required?
name	String	Name of the boat	Yes
type	String	Type of boat	Yes
length	Integer	Size of boat	Yes

Request Body Example

```
{
  "name": "Put in eggs",
  "type": "Yatch",
  "length": 2
}
```

Response

Response Body Format

JSON

Response Statues

Outcome	Status Code	Notes
Success	303 See Other	• Update Boat and a link to the updated boat will be given in the header.
Failure	400 Bad Request	• Inputting ID when not needed, missing at least one required attribute, name is not string, type is not string, length is not integer, name length is wrong or contains numbers, type length is wrong or contains numbers, length is too large and can only be integer, adding too many attributes
Failure	403 Name is not Unique	• Name of boat is not unique
Failure	415 Unsupported Media type	• Client sent Mime that is not supported by server

Response Examples

- Datastore will generate ID and store it with the entity that is being created
- The value 'self' will create a live link to the REST resource corresponding to the Boat

Response Example

Success

Status: 303 See Other

Failure

```
Status: 400 Bad Request
{
    "Error": "ID's arent needed"
}
OR
{
    "Error": "The request object is missing at least one of the requried attributes"
}
OR
{
    "Error": "Name cannot be longer than 16 characters. It can also only contain letters of the alphabet"
}
OR
{
    "Error": "Type cannot be longer than 16 characters. It can also only contain letters of the alphabet"
}
OR
{
    "Error": "Length must be int"
}
OR
{
    "Error": "Name cannot be longer than 16 characters. It can also only contain letters of the alphabet"
}
OR
{
    "Error": "Type cannot be longer than 16 characters. It can also only contain letters of the alphabet"
}
OR
{
    "Error": "Length cant be longer than 7 digits. It can also only contain numbers"
}
OR
{
    "Error": "adding too many attributes"
}
```

```
Status: 403 Name Not Unique
{
    "Error": "Name is not unique"
}
```

Status: 415 Unsupported Media Type

Delete All Boats

Allows you to delete all boat. Accepts any MIME type and can only respond with application/JSON MIME type.

DELETE /boats

Request

Request Parameters

None

Request Body

None

Request Body Format

None

Response

Response Body Format

Success: None
Failure: JSON

Response Statues

Outcome	Status Code	Notes
Failure	405 Method Not Allowed	Cannot delete all boats at once

Response Example

Failure

Status: 405 Method Not Allowed

Edit All Boats

Allows you to edit all boat. Accepts any MIME type and can only respond with application/JSON MIME type.

PUT /boats

Request

Request Parameters

None

Request Body

None

Request Body Format

None

Response

Response Body Format

Success: None
Failure: JSON

Response Statues

Outcome	Status Code	Notes
Failure	405 Method Not Allowed	Cannot edit all boats at once

Response Example

Failure

Status: 405 Method Not Allowed