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 letters 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 letters 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

|  |
| --- |
| <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> |
| {      "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

|  |
| --- |
| <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> |
| {          "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",          "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 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 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 |