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REST Planning and Implementation

Google Cloud Link: <https://rest-implementation-183107.appspot.com>

Summary:

There are three types of models in the API and below are their properties:

1. Boat
   1. Name – string
   2. Type – string
   3. Length – integer
   4. At\_sea – boolean
2. Departure History
   1. Departure date – string
   2. Departed date – string
3. Slip
   1. Slip number – integer
   2. Current boat – string
   3. Arrival date – string
   4. Departure history – structured property (of departure history) **EXTRA CREDIT**

Below are my URL’s and the verbs (HTTP actions) for these URL’s.

# Boats

## Create a Boat

POST /boats

Notes

* Boat entity has a property titled “at\_sea” and automatically set to true when the boat is created. In order to change this property you will need to visit the **Mark a Boat At Sea** section
* If created successfully it will return a 201 response code

|  |  |  |
| --- | --- | --- |
| **Name** | **Type** | **Description** |
| name (required) | String | Name of the boat |
| type (required) | String | Type of boat |
| length (required) | Integer | Length of the boat |
| at\_sea | Boolean | If vessel is at sea (auto default to true) |

## List All Boats

GET /boats

Notes:

* If successful, will return a 201 response code

## List Specific Boat

GET /boats/{boat id}

Notes:

* If successful will return a 201 response code

## Modify Boat

PATCH /boats/{boat id}

Notes:

* If successful, will return a 201 response code if not a 505 error code

|  |  |  |
| --- | --- | --- |
| **Name** | **Type** | **Description** |
| name (optional) | String | Name of the boat |
| type (optional) | String | Type of boat |
| length (optional) | Integer | Length of the boat |

## Modify Entire Boat

PUT /boats/{boat id}

Notes:

* If successful, will return a 201 response code if not a 505 error code

|  |  |  |
| --- | --- | --- |
| **Name** | **Type** | **Description** |
| name (required) | String | Name of the boat |
| type (required) | String | Type of boat |
| length (required) | Integer | Length of the boat |

## Delete Boat

DELETE /boats/{boat id}

Note:

* If boat is docked the slip will be updated accordingly and opened up and its’ departure list is updated as well
* If successful, will return a 201 response code if not a 505 error code

# Slips

## Create A Slip

POST /slips

Notes:

* Slip number must not already exists, if not the entity will not be created and will throw a 505 error, else if successful will return a 201 response code

|  |  |  |
| --- | --- | --- |
| **Name** | **Type** | **Description** |
| slip\_number (required) | Integer | Slip number |

## List All Slips

GET /slips

## List Specific Slip

GET /slips/{slip id}

## Modify A Slip

PATCH /slips/{slip id}

Notes:

* If slip number already exists it will not be updated and will throw a 505 error else will return a 201 response code

|  |  |  |
| --- | --- | --- |
| **Name** | **Type** | **Description** |
| slip\_number (required) | Integer | Slip number |

## Delete Slip

DELETE /slips/{slip id}

Notes:

* If slip is occupied, the system will automatically change the boats at sea property to true
* If successful, will return a 201 response code if not a 505 error code

## Docking Boat To Slip (similar to starring a Gist)

PUT /slips/{slip id}/dock/{boat id}

Notes:

* Will return 405 response code for invalid slip id
* Will return 404 response code for invalid boat id
* Will return 402 response code if boat is already docked
* Will return 403 response code if slip is already occupied

|  |  |  |
| --- | --- | --- |
| **Name** | **Type** | **Description** |
| arrival\_date (required) | String | Date boat arrives to slip |

## Undock Boat From Slip (similar to starring a Gist)

PUT /boats/{boat id}/atsea/{slip id}

Notes:

* Will return 405 response code for invalid slip id
* Will return 404 response code for invalid boat id
* Will return 402 response code if boat is already at sea
* Will return 403 response code if slip is already empty

|  |  |  |
| --- | --- | --- |
| **Name** | **Type** | **Description** |
| departure\_date (required) | String | Date boat departs to sea and leaves slip |