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Rest Planning and Implementation
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Live Link at: **http://week3-166218.appspot.com/**

Create a new Boat

All newly created boats start with at_sea = True.

POST	/boat

Input

Name	Type	Description
name	string	Required. Name descriptor for boat
type	string	The type of boat
length	integer	The numerical length of the boat

Sample Request and Body

POST	/boat

```
{
    "name": "First Lady",
    "type": "Long Boat",
    "length": 300
}
```

Response

```
Status: 200 OK
```

```
{
"name": "First Lady",
"self": "/boat/ag5wfndlZWszLTE2NjIxOHIRCxIEQm9hdBiAgICAvKGCCQw",
"at_sea": true,
"length": 300,
"type": "Long Boat",
"id": "ag5wfndlZWszLTE2NjIxOHIRCxIEQm9hdBiAgICAvKGCCQw"
}
```

Create a new Slip

All newly created slips are initialized as Empty.

```
POST    /slip
```

Input

Name	Type	Description
number	integer	Required. Number descriptor for slip

Sample Request and Body

```
POST    /slip
```

```
{
    "number":  1 5
}
```

Response

```
Status: 200 OK
```

```
{
"current_boat":  null,
"arrival_date":  null,
"number":  1 5 ,
"self":   "/slip/ag 5 wfndlZWszLTE 2 NjIxOHIRCxIEU 2 xpcBiAgICA 3 pCBCgw",
"id":   "ag 5 wfndlZWszLTE 2 NjIxOHIRCxIEU 2 xpcBiAgICA 3 pCBCgw"
}
```

Delete a Boat

If the boat was occupying a slip, the slip will be set to empty.

```
DELETE      /boat/{:id}
```

Sample Request

```
DELETE      /boat/ag5 wfndlZWszLTE 2 NjIxOHIRCxIEQm 9 hdBiAgICAvKGCCQw
```

Response

```
Status: 204 No Content
```

Delete a Slip

Any boats that occupied the slip will be set to 'at_sea' = True.

```
DELETE      /slip/{:id}
```

Sample Request

```
DELETE      /slip/ag5 wfndlZWszLTE 2 NjIxOHIRCxIEU 2 xpcBiAgICA 7 bGDCgw
```

Response

```
Status: 204 No Content
```

View all Boats

```
GET      /boat
```

Sample Request

```
GET      /boat
```

Response

```
Status: 200 OK
```

```
[
    {
    'name': u'First Lady', 'self': '/boat/
    ag5wfndlZWszLTE2NjIxOHIRCxIEQm9hdBiAgICAvKGCCQw', 'at_sea': True,
    'length': 300, 'type': u'Long Boat', 'id':
    u'ag5wfndlZWszLTE2NjIxOHIRCxIEQm9hdBiAgICAvKGCCQw'
    },
    {
    'name': u'Second Lady', 'self': '/boat/
    ag5wfndlZWszLTE2NjIxOHIRCxIEQm9hdBiAgICA-JaVCQw', 'at_sea': True,
    'length': 50, 'type': u'Short Boat', 'id':
    u'ag5wfndlZWszLTE2NjIxOHIRCxIEQm9hdBiAgICA-JaVCQw'
    },
    {
    'name': u'First Lady', 'self': '/boat/None', 'at_sea': True,
    'length': 300, 'type': u'Long Boat', 'id': None
    },
    {
    'name': u'First Lady', 'self': '/boat/
    ag5wfndlZWszLTE2NjIxOHIRCxIEQm9hdBiAgICAvKGCCgw', 'at_sea': True,
    'length': 300, 'type': u'Long Boat', 'id':
    u'ag5wfndlZWszLTE2NjIxOHIRCxIEQm9hdBiAgICAvKGCCgw'
    }
]
```

View a Boat by ID

```
GET      /boat/{:id}
```

Sample Request

```
GET      /boat/ag5 wfndlZWszLTE2 NjIxOHIRCxIEQm9 hdBiAgICA-MKECQw
```

Response

Status: 200 OK

{"at_sea": false, "length": 3 0 0, "type": "Long Boat", "name": "First Lady", "id": "ag5 wfndlZWszLTE2 NjIxOHIRCxIEQm9 hdBiAgICA-MKECQw"}

View all Slips

```
GET     /slip
```

Sample Request

Response

Response includes URL to boat if the slip is occupied.

```
Status: 200 OK
```

```
[
    {
    'arrival_date':  None,  'self':  '/slip/
    ag5 wfndlZWszLTE2 NjIxOHIRCxIEU2 xpcBiAgICAmdKFCgw',  'number':
    15,  'Current  Boat':  '/boat/None',  'current_boat':  None,  'id':
    u'ag5 wfndlZWszLTE2 NjIxOHIRCxIEU2 xpcBiAgICAmdKFCgw'
    },
    {
    'arrival_date':  None,  'self':  '/slip/
    ag5 wfndlZWszLTE2 NjIxOHIRCxIEU2 xpcBiAgICA3 oyQCgw',  'number':
    15,  'Current  Boat':  '/boat/None',  'current_boat':  None,  'id':
    u'ag5 wfndlZWszLTE2 NjIxOHIRCxIEU2 xpcBiAgICA3 oyQCgw'
    },
    {
    'arrival_date':  u'04 -31 -2017',  'self':  '/slip/
    ag5 wfndlZWszLTE2 NjIxOHIRCxIEU2 xpcBiAgICA-JaVCww',  'number':
    75,  'Current  Boat':  '/boat/
    ag5 wfndlZWszLTE2 NjIxOHIRCxIEQm9 hdBiAgICAvKGCCgw',  'current_boat':
    u'ag5 wfndlZWszLTE2 NjIxOHIRCxIEQm9 hdBiAgICAvKGCCgw',  'id':
    u'ag5 wfndlZWszLTE2 NjIxOHIRCxIEU2 xpcBiAgICA-JaVCww'
    }
]
```

View a Slip by ID

```
GET     /slip/{:id}
```

Sample Request

```
GET     /slip/ag5wfndlZWszLTE2NjIxOHIRCxIEU2xpcBiAgICAvKGCCww
```

Response

```
Status: 200 OK
```

```
{"current_boat":  "ag5wfndlZWszLTE2NjIxOHIRCxIEQm9hdBiAgICA-MKECQw",
"arrival_date":  "05-01-2017",  "number":  15,  "id":
"ag5wfndlZWszLTE2NjIxOHIRCxIEU2xpcBiAgICAvKGCCww"}
```

Modify a Boat

Modification of boats cannot alter 'at_sea' or 'id' properties.

PATCH	/boat/{:id}

Input

Name	Type	Description
name	string	Name descriptor for boat
type	string	The type of boat
length	integer	The numerical length of the boat

Sample Request and Request Body

PATCH	/boat/ag5 wfndlZWszLTE2 NjIxOHIRCxIEQm9 hdBiAgICA3 uqJCgw

```
{
    "name":  "Burpees",
    "type":  "Supercalifragilistic",
    "length":  2 0 0 0 0
}
```

Response

Status: 200 OK

{'at_sea': True, 'length': 2 0 0 0 0 , 'type': u'Supercalifragilistic', 'name': u'Burpees', 'id': u'ag5 wfndlZWszLTE2 NjIxOHIRCxIEQm9 hdBiAgICA3 uqJCgw'}

Replace a Boat

Replacing of boats cannot alter 'at_sea' or 'id' properties.
Replacing a boat will set any unspecified properties to null with exception to at_sea property which will remain the same.

PUT	/boat/{:id}

Input

Name	Type	Description
name	string	REQUIRED. Name descriptor for boat
type	string	The type of boat
length	integer	The numerical length of the boat

Sample Request and Request Body

PUT   /boat/ag 5 wfndlZWszLTE 2 NjIxOHIRCxIEQm 9 hdBiAgICA 3 uqJCgw

```
{
    "name":  "Burpees",
    "type":  "Long  Boat",
    "length":  2 0 0
}
```

Response

```
Status: 200 OK
```

{'at_sea': True, 'length': 2 0 0 , 'type': u'Long Boat', 'name': u'Burpees', 'id': u'ag 5 wfndlZWszLTE 2 NjIxOHIRCxIEQm 9 hdBiAgICA 3 uqJCgw'}

Modify a Slip

Modification of slips can alter 'at_sea' boat property.
It cannot modify 'id' properties.

PATCH	/boat/{:id}

Input

If a user inputs a 'current_boat' value, they must also input a 'arrival_date' value. An error will occur otherwise.

Name	Type	Description
number	integer	Numeric descriptor for slip
current_boat	string	The id of boat currently in slip
arrival_date	string	The date of boat's arrival as string

Sample Request and Request Body

PATCH	/slip/ag5 wfndlZWszLTE2 NjIxOHIRCxIEU2 xpcBiAgICA-JaVCww

```
{
    "number":  1 5 ,
    "current_boat":  "ag5 wfndlZWszLTE2 NjIxOHIRCxIEQm9 hdBiAgICA3 uqJCgw",
    "arrival_date":  "0 4 -3 0 -2 0 1 7 "
}
```

Response

Response will include a URL link to the current boat occupying it [if applicable].

```
Status: 200 OK
```

```
{'current_boat':  u'ag5 wfndlZWszLTE2 NjIxOHIRCxIEQm9 hdBiAgICA3 uqJCgw',
'arrival_date':  u'0 4 -3 0 -2 0 1 7 ',  'Current  Boat':  u'/boat/
ag5 wfndlZWszLTE2 NjIxOHIRCxIEQm9 hdBiAgICA3 uqJCgw',  'number':  1 5 ,
'id':  u'ag5 wfndlZWszLTE2 NjIxOHIRCxIEU2 xpcBiAgICA-JaVCww'}
```

Replace a Slip

Replacing of boats cannot alter 'at_sea' or 'id' properties.

PUT	/slip/{:id}

Input

Name	Type	Description
number	integer	REQUIRED. Numeric descriptor for slip
current_boat	string	The id of boat currently in slip
arrival_date	string	The date of boat's arrival as string

Sample Request and Request Body

```
PUT     /slip/ag5 wfndlZWszLTE2 NjIxOHIRCxIEU2 xpcBiAgICA-JaVCww
```
```
{
    "number":  7 5
}
```

Response

```
Status: 200 OK
```

{'current_boat': None, 'arrival_date': None, 'Current Boat': '/boat/
None', 'number': 7 5 , 'id':
u'ag5 wfndlZWszLTE2 NjIxOHIRCxIEU2 xpcBiAgICA-JaVCww'}

Arrive at a Slip

Boat's arrival at a slip will automatically alter the 'at_sea' property of the boat.

```
PUT     dock/slip/{:slip_id}
```

Input

Name	Type	Description
current_boat	string	The id of boat currently in slip
arrival_date	string	The date of boat's arrival as string

Sample Request and Request Body

```
PUT     dock/slip/ag5 wfndlZWszLTE2 NjIxOHIRCxIEU2 xpcBiAgICA-JaVCww
{
    "current_boat":  "ag5 wfndlZWszLTE2 NjIxOHIRCxIEQm9 hdBiAgICAvKGCCgw",
    "arrival_date":  "0 4 -3 1 -2 0 1 7 "
}
```

Response

If Slip is currently occupied, and ERROR message will appear. Use 'Modify a Slip' or 'Replace a Slip' to change boat currently occupying slip.

Response returns slip info as well as boat info.

```
Status: 200 OK
```

```
Boat  set  at_sea  =  FALSE
Slip  is  now  occupied.
{'current_boat':  u'ag5 wfndlZWszLTE2 NjIxOHIRCxIEQm9 hdBiAgICAvKGCCgw',
'arrival_date':  u'0 4 -3 1 -2 0 1 7 ',  'number':  1 5 ,  'id':
u'ag5 wfndlZWszLTE2 NjIxOHIRCxIEU2 xpcBiAgICAmdKFCgw'}
{'at_sea':  False,  'length':  3 0 0 ,  'type':  u'Long  Boat',  'name':
u'First  Lady',  'id':
u'ag5 wfndlZWszLTE2 NjIxOHIRCxIEQm9 hdBiAgICAvKGCCgw'}
```

Leave a Slip

Replacing of boats cannot alter 'at_sea' or 'id' properties.

DELETE	dock/slip/{:slip_id}

Input

Name	Type	Description
current_boat	string	REQUIRED. The id of boat currently in slip
arrival_date	string	The date of boat's arrival as string

Sample Request

DELETE   dock/slip/ag5 wfndlZWszLTE2 NjIxOHIRCxIEU2 xpcBiAgICA-JaVCww

Response

```
Status: 200 OK
```

```
Boat  set  at_sea  =  TRUE
Slip  is  now  empty.
{'current_boat':  None,  'arrival_date':  None,  'number':  75 ,  'id':
u'ag5 wfndlZWszLTE2 NjIxOHIRCxIEU2 xpcBiAgICA-JaVCww'}
```