Desk Booking REST API Documentation

Introduction
This document provides an explanation of how to use the Desk Booking REST API. It also includes information about authentication.

Request Structure
The requests for this API must use x-www-form-urlencoded requests. The authentication token is passed in the x-access-token header.

Route Index
See below a list of the routes for the REST API:

```
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```

Authentication
The API uses a token-based authentication. Tokens are requested using api/login, and then the returned token should be included in the x-access-token header on subsequent API requests.

The token will expire after 1 hour. After this happens, any requests that require a token will return the following:

```
{
   "error": "Token expired",
   "userMessage": "Sorry, you need to log in again to access this page."
}
```

Routes

/api/login

Access: All

Token Required: No

Methods:

GET	Authenticates the user using the provided credentials and returns an access token for the user.
	Request form paramaters
	email — The email of the user who is authenticating
	password — The user's password ("access code")
	Example output

	{
	    "access_token":
	"VDh4MWQ4d0dyRFJ2dzJSaFJkS3REM2FRZXQ4PU9xaWInVmFiOWUzY
	2U3OWI5M2MzZTQyMzc0ZDdiNjM0ZWI1NmI2MWJkNWU0NGIyZmU4NT
	g4OTczMWNkMzY5YWY0NjM0NjE3NjYxNWRiMDU5MTcwOWZhZTQwZD
	I2MDY5M2YwMTg1M2VjZDk4MDQxOGE0YWIxYzQyOTY3ZDljYTUzY2Ez
	ZWQyZTAxZjRIM2YwZWRmZWMyYmY3OTdiMWNjNzRiZmEwZWJlMQ="
	}

/api/bookings

Access: All

Token Required: No

Methods:

GET	Gets a list of all bookings after the current date
	Request form paramaters None
	Example output

	[
	    {
	        "_id": "540728263dde3d0c0d8147fb",
	        "userId": "5405e74d7f208e620b6b60ec",
	        "projectName": "Microsite",
	        "projectType": "Labs",
	        "start": "2014-01-01T00:00:00.000Z",
	        "end": "2014-02-02T00:00:00.000Z"
	    }
	]

/api/bookings/all

Access: All

Token Required: No

Methods

GET	Gets a list of all bookings regardless of date

	Request form paramaters
	None
	
	Example output
	<pre>[
	    {
	        "_id": "540728263dde3d0c0d8147fb",
	        "userId": "5405e74d7f208e620b6b60ec",
	        "projectName": "Microsite",
	        "projectType": "Labs",
	        "start": "2014-01-01T00:00:00.000Z",
	        "end": "2014-02-02T00:00:00.000Z"
	    }
	]</pre>

/api/bookings/active

Access: All

Token Required: No

Methods

GET	Gets a list of all bookings that are currently "active" - i.e. their start date is before the current date and they have not yet finished. This can be used to view all of the bookings in the space at the current time.

	Request form paramaters
	None
	
	Example output
	<pre>[
	    {
	        "_id": "540728263dde3d0c0d8147fb",
	        "userId": "5405e74d7f208e620b6b60ec",
	        "projectName": "Microsite",
	        "projectType": "Labs",
	        "start": "2014-01-01T00:00:00.000Z",
	        "end": "2014-02-02T00:00:00.000Z"
	    }
	]</pre>

/api/bookings/create

Access: All

Token Required: Yes

Methods

POST	Creates a new booking for the currently logged in user. The user must be logged in to make this call.

Request form paramaters

start	The time (in ms) of the start of the project *All times in this database are measured from 01 Jan 1970 00:00:00 UTC*
end	The time (in ms) of the end of the project
projectName	The name of the project
projectType	The type of the project
seats	An array of strings containing the IDs of the seats in the bookings

Example output (success)

```
{
    "message": "Booking created!"
}
```

Example output (failure)

```
{
    "conflicts": [
        {
            "userId": "5405e74d7f208e620b6b60ec",
            "bookingId": "5405e74d7f208e620b6b60ec",
            "projectName": "Testing booking modifications",
            "projectType": "Development",
            "seat": "53ff22280c6a49d9aa78f7e4"
        },
        {
            "userId": "5405e74d7f208e620b6b60ec",
            "bookingId": "5405e74d7f208e620b6b60ec",
            "projectName": "Testing booking modifications",
            "projectType": "Development",
            "seat": "53ff222f0c6a49d9aa78f7e5"
        }
    ]
}
```

This shows a list of seats that were in the booking which was attempted which are unavilable.

/api/bookings/:id

Access:
>   GET: All
>   PUT/DELETE: Admin or owner

Token Required:
>   GET: No
>   PUT/DELETE: Yes

Methods

GET	Returns the booking associated with the given ID

	Request form paramaters
	None
	
	Example output
	
	`[`
	    `{`
	      `"_id": "540728263dde3d0c0d8147fb",`
	      `"userId": "5405e74d7f208e620b6b60ec",`
	      `"projectName": "Microsite",`
	      `"projectType": "Torture",`
	      `"start": "2014-01-01T00:00:00.000Z",`
	      `"end": "2014-02-01T00:00:00.000Z"`
	    `}`
	`]`

PUT — Updates the booking with new information

Request form paramaters

start	The time (in ms) of the start of the project
end	The time (in ms) of the end of the project
projectName	The name of the project
projectType	The type of the project

Example output

```
{
    "message": "Booking updated!"
}
```

DELETE — Deletes the booking

Request form paramaters
None

Example output

```
{
    "message": "Booking deleted!"
}
```

/api/bookings/:id/user

Access: Admin or Owner

Token Required: Yes

Methods

GET	Gets the user who owns the booking
	Request form paramaters None
	Example output

	`[`
	`  {`
	`    "__v": 8,`
	`    "_id": "5405e74d7f208e620b6b60ec",`
	`    "bookingDays": 0,`
	`    "bookings": {`
	`      "_id": "540728263dde3d0c0d8147fb",`
	`      "end": "1970-01-01T00:00:00.003Z",`
	`      "start": "1970-01-01T00:00:00.003Z",`
	`      "projectType": "PO Microsite",`
	`      "projectName": "Chargable",`
	`      "seats": [`
	`        "53ff22280c6a49d9aa78f7e4",`
	`        "53ff222f0c6a49d9aa78f7e5",`
	`        "53ff22b50c6a49d9aa78f7e6"`
	`      ]`
	`    },`
	`    "bookingsTotal": 5,`
	`    "email": "ilabs@uk.ibm.com",`
	`    "fname": "Interactive",`
	`    "isAdmin": true,`
	`    "lname": "Labs",`
	`    "password": "d28f3eb1",`
	`    "requests": [`
	`      {`
	`        "_id": "54072a7a0ed461980d2155bd",`
	`        "accepted": false,`
	`        "completed": false,`
	`        "created": "2014-09-03T14:49:30.803Z"`
	`      }`
	`    ],`
	`    "requestsTotal": 1`
	`  }`
	`]`

/api/bookings/:id/seats

Access: All

Token Required: No

Methods

GET	Array of seat information related to the given booking
	Request form paramaters None **Example output**

	<pre>{
	    "user": "5405e74d7f208e620b6b60ec",
	    "seats": [
	        {
	            "__v": 0,
	            "_id": "53ff22280c6a49d9aa78f7e4",
	            "seatNo": 0,
	            "specs": {
	                "smartScreen": true,
	                "imac": true,
	                "display": false
	            },
	            "maxPeople": 1,
	            "type": ""
	        },
	        {
	            "seatNo": 1,
	            "_id": "53ff222f0c6a49d9aa78f7e5",
	            "__v": 0,
	            "specs": {
	                "smartScreen": true,
	                "imac": true,
	                "display": false
	            },
	            "maxPeople": 1,
	            "type": "Desk"
	        },
	        {
	            "_id": "53ff22b50c6a49d9aa78f7e6",
	            "seatNo": 2,
	            "__v": 0,
	            "specs": {
	                "smartScreen": true,
	                "imac": true,
	                "display": true
	            },
	            "maxPeople": 10,
	            "type": "Desk"
	        }
	    ]
	}</pre>

/api/bookings/between/:date1/:date2/

Access: All

Token Required: No

Methods

GET	Gets list of bookings between the given dates
	Request form paramaters None
	Example output

	<pre>[
	    {
	        "_id": "540728263dde3d0c0d8147fb",
	        "userId": "5405e74d7f208e620b6b60ec",
	        "projectName": "Microsite",
	        "projectType": "Labs",
	        "start": "2014-01-01T00:00:00.000Z",
	        "end": "2014-02-02T00:00:00.000Z"
	    }
	]</pre>

/api/bookings/between/:date1/:date2/seats

Access: All

Token Required: No

Methods

GET	Gets a list of all seats that are contained within bookings between the given dates
	Request form paramaters None
	Example output

	<pre>{
	    "user": "5405e74d7f208e620b6b60ec",
	    "seats": [
	        {
	            "_id": "53ff22b50c6a49d9aa78f7e6",
	            "seatNo": 2,
	            "__v": 0,
	            "specs": {
	                "smartScreen": true,
	                "imac": true,
	                "display": true
	            },
	            "maxPeople": 10,
	            "type": "Desk"
	        }
	    ]
	}</pre>

/api/bookings/between/:date1/:date2/users

Access: Admin

Token Required: Yes

Methods

GET	Gets a list of all users who have bookings between the given dates

	Request form paramaters
	None
	
	Example output
	
	`[`
	    `{`
	      `"__v": 8,`
	      `"_id": "5405e74d7f208e620b6b60ec",`
	      `"bookingDays": 0,`
	      `"bookings": {`
	        `"_id": "540733bdde3c15ef0ec0954c",`
	        `"end": "1970-01-01T00:00:00.000Z",`
	        `"start": "1970-01-01T00:00:00.000Z",`
	        `"seats": []`
	      `},`
	      `"bookingsTotal": 5,`
	      `"email": "ilabs@uk.ibm.com",`
	      `"fname": "Interactive",`
	      `"isAdmin": true,`
	      `"lname": "Labs",`
	      `"password": "d28f3eb1",`
	      `"requests": [`
	        `{`
	          `"_id": "54072a7a0ed461980d2155bd",`
	          `"accepted": false,`
	          `"completed": false,`
	          `"created": "2014-09-03T14:49:30.803Z"`
	        `}`
	      `],`
	      `"requestsTotal": 1`
	    `}`
	`]`

/api/users

Access: Admin

Token Required: Yes

Methods

GET	Gets a list of all users
	Request form paramaters None **Example output**

```
[
    {
        "__v": 8,
        "_id": "5405e74d7f208e620b6b60ec",
        "bookingDays": 0,
        "bookings": {
            "_id": "540733bdde3c15ef0ec0954c",
            "end": "1970-01-01T00:00:00.000Z",
            "start": "1970-01-01T00:00:00.000Z",
            "seats": []
        },
        "bookingsTotal": 5,
        "email": "ilabs@uk.ibm.com",
        "fname": "Interactive",
        "isAdmin": true,
        "lname": "Labs",
        "password": "d28f3eb1",
        "requests": [
            {
                "_id": "54072a7a0ed461980d2155bd",
                "accepted": false,
                "completed": false,
                "created": "2014-09-03T14:49:30.803Z"
            }
        ],
        "requestsTotal": 1
    }
]
```

/api/users/create

Access: All

Token Required: No

Methods

POST	Creates a new user
	Request form paramaters

fname	The user's first name
lname	The user's last name
email	The user's email address

Example output

```
[
    {
        "__v": 8,
        "_id": "5405e74d7f208e620b6b60ec",
        "bookingDays": 0,
        "bookings": {
            "_id": "540733bdde3c15ef0ec0954c",
            "end": "1970-01-01T00:00:00.000Z",
            "start": "1970-01-01T00:00:00.000Z",
            "seats": []
        },
        "bookingsTotal": 5,
        "email": "ilabs@uk.ibm.com",
        "fname": "Interactive",
        "isAdmin": true,
        "lname": "Labs",
        "password": "d28f3eb1",
        "requests": [
            {
                "_id": "54072a7a0ed461980d2155bd",
                "accepted": false,
                "completed": false,
                "created": "2014-09-03T14:49:30.803Z"
            }
        ],
        "requestsTotal": 1
    }
]
```

/api/users/:id

Access:
    GET/DELETE: Admin or Owner
    PUT: Admin

Token Required: Yes

Methods

GET	Gets a specific user

	Request form paramaters
	None
	
	Example output
	<pre>{
	    "__v": 6,
	    "_id": "5405eb1caa6175490c7a001c",
	    "bookingDays": 0,
	    "bookingsTotal": 2,
	    "password": "b4c65560",
	    "requestsTotal": 1,
	    "requests": [],
	    "bookings": [],
	    "isAdmin": false,
	    "email": "karltay7@uk.ibm.com",
	    "lname": "Taylor",
	    "fname": "Karl"
	}</pre>

PUT	Modify the specified user
	Request form paramaters

fname	The user's first name
lname	The user's last name
email	The user's email address
isAdmin	To set the user as an admin set this to 'true'. To remove a user's admin rights, set this to 'false'. * [Security] The user's admin rights are stored in their token after login, and they are not checked by the server until the token expires. This means if an admin has been issued a token before their admin rights are removed, they will still have access to the system (through their token) until it expires.

Example output

```
{
    "message": "User updated!"
}
```

DELETE	Deletes the specified user

	Request form paramaters
	None
	
	Example output
	<pre>{
	    "message": "Successfully deleted!"
	}</pre>

/api/users/:id/bookings

Access: Admin or Owner

Token Required: Yes

Methods

GET	Gets a list of all the bookings associated with the given user

	Request form paramaters
	None
	
	Example output
	<pre>[
	    {
	        "_id": "540728263dde3d0c0d8147fb",
	        "userId": "5405e74d7f208e620b6b60ec",
	        "projectName": "Desk booking API Documentation",
	        "projectType": "Development",
	        "start": "2014-01-01T00:00:00.003Z",
	        "end": "2014-02-02T00:00:00.003Z"
	    },
	    {
	        "_id": "540728343dde3d0c0d8147fc",
	        "userId": "5405e74d7f208e620b6b60ec",
	        "projectName": "Making the iMac speak",
	        "projectType": "Mischief",
	        "start": "2014-01-01T00:00:00.001Z",
	        "end": "2014-02-02T00:00:00.001Z"
	    }
	]</pre>

/api/users/:id/requests

Access: Admin or Owner

Token Required: Yes

Methods

GET	Gets a list of all the requests associated with the given user

	Request form paramaters
	None
	
	Example output
	
	``
	[
	    {
	        "_id": "5408345e9d72877503f293c7",
	        "userId": "5405e74d7f208e620b6b60ec",
	        "businessNeed": "Supporting a bid",
	        "description": "Post Office Microsite doesn't work in IE - need urgent space for a team of 15 developers to get it working",
	        "start": "2014-09-04T09:42:12.982Z",
	        "end": "2014-09-08T23:00:00.000Z",
	        "created": "2014-09-04T09:43:58.505Z",
	        "completed": false,
	        "accepted": false
	    }
	]
	``

/api/users/newPassword

Access: All

Token Required: No

POST	Emails the user with a newly genarated password
	Request form paramaters
	email	The email of the user who's password is to be re-generated.

	Example output
	
	``
	{
	    "result": "success"
	}
	``
	
	Desk Booking Access Code (SYSTEM IN TESTING, PLEASE DISCARD THIS EMAIL)
	Interactive Labs Deployments to: Karl Taylor7
	
	Your access code for the desk booking system is : 9f4f6524 . Please keep this somewhere safe!

/api/seats

Access: All

Token Required: No

GET	Gets a list of seats
	Request form paramaters None
	Example output

```
[
    {
        "__v": 0,
        "_id": "53ff22280c6a49d9aa78f7e4",
        "seatNo": 0,
        "specs": {
            "smartScreen": true,
            "imac": true,
            "display": false
        },
        "maxPeople": 1,
        "type": ""
    },
    {
        "seatNo": 1,
        "_id": "53ff222f0c6a49d9aa78f7e5",
        "__v": 0,
        "specs": {
            "smartScreen": true,
            "imac": true,
            "display": false
        },
        "maxPeople": 1,
        "type": "Desk"
    },
    {
        "_id": "53ff22b50c6a49d9aa78f7e6",
        "seatNo": 2,
        "__v": 0,
        "specs": {
            "smartScreen": true,
            "imac": true,
            "display": true
        },
        "maxPeople": 10,
        "type": "Desk"
    }
]
```

/api/seats/create

Access: Admin

Token Required: Yes

Methods

POST	Creates a new seat
	Request form paramaters
	<table><tr><td>seatNo</td><td>The seat number</td></tr><tr><td>type</td><td>The seat type</td></tr><tr><td>maxPeople</td><td>The maximum number of people</td></tr><tr><td>specs</td><td>JSON object representing the specs of the seat e.g. {"imac": false, "smartScreen": true, "display": false}</td></tr></table>
	Example output

	<pre>{
	    "__v": 0,
	    "seatNo": 10,
	    "_id": "5408390cbe4c32cb048a3ab2",
	    "specs": {
	        "smartScreen": true,
	        "imac": false,
	        "display": false
	    },
	    "maxPeople": 5,
	    "type": "Burger"
	}</pre>

/api/seats/:id

Access:
    GET: All
    PUT/DELETE: Admin

Token Required:
    GET: No
    PUT/DELETE: Yes

GET	Returns the seat associated with the given ID

	Request form paramaters
	None
	
	Example output
	<pre>{
	    "seatNo": 10,
	    "_id": "5408390cbe4c32cb048a3ab2",
	    "__v": 0,
	    "specs": {
	        "smartScreen": true,
	        "imac": false,
	        "display": false
	    },
	    "maxPeople": 5,
	    "type": "Burger"
	}</pre>

PUT	Updates the seat with new information

	Request form paramaters
	
	<table><tr><td>seatNo</td><td>The seat number</td></tr><tr><td>type</td><td>The seat type</td></tr><tr><td>maxPeople</td><td>The maximum number of people</td></tr><tr><td>specs</td><td>JSON object representing the specs of the seat</td></tr></table>
	Example output
	<pre>{
	    "message": "Seat updated!"
	}</pre>

DELETE	Deletes the seat

	Request form paramaters
	None
	
	Example output
	
	<pre>{
	    "message": "Successfully deleted"
	}</pre>

/api/requests

Access: Admin

Token Required: Yes

Methods

GET	Gets a list of <u>active</u> special requests

	Request form paramaters
	None
	
	Example output
	
	<pre>[
	    {
	        "_id": "5408345e9d72877503f293c7",
	        "userId": "5405e74d7f208e620b6b60ec",
	        "businessNeed": "Supporting a bid",
	        "description": "Post Office Microsite doesn't work in IE – need urgent space for a team of 50 developers to get it working",
	        "start": "2014-09-04T09:42:12.982Z",
	        "end": "2014-09-08T23:00:00.000Z",
	        "created": "2014-09-04T09:43:58.505Z",
	        "completed": false,
	        "accepted": false
	    }
	]</pre>

/api/requests/all

Access: Admin

Token Required: Yes

Methods

GET	Gets a list of <u>all</u> special requests (regardless of completed status)

	Request form paramaters
	None
	
	Example output
	
	<pre>[
	    {
	        "_id": "5408345e9d72877503f293c7",
	        "userId": "5405e74d7f208e620b6b60ec",
	        "businessNeed": "Supporting a bid",
	        "description": "Post Office Microsite doesn't work in IE – need urgent space for a team of 50 developers to get it working",
	        "start": "2014-09-04T09:42:12.982Z",
	        "end": "2014-09-08T23:00:00.000Z",
	        "created": "2014-09-04T09:43:58.505Z",
	        "completed": false,
	        "accepted": false
	    }
	]</pre>

/api/requests/create

Access: All

Token Required: Yes

POST	Creates a new request and notifies the ilabs@uk.ibm.com email address.
	Request form paramaters
	<table><tr><td>start</td><td>The start date of the request</td></tr><tr><td>end</td><td>The end date of the request</td></tr><tr><td>description</td><td>A description of the nature of the request</td></tr><tr><td>businessNeed</td><td>The justification for making the request from a business need perspective</td></tr><tr><td>numberOfSeats</td><td>The number of seats required</td></tr></table>
	Example output
	```json\n{\n "message": "Request created!"\n}\n```

/api/requests/:id

Access: Admin

Token Required: Yes

GET	Returns the request associated with the given ID
	Request form paramaters None
	Example output
	```json\n[\n {\n "_id": "5408345e9d72877503f293c7",\n "userId": "5405e74d7f208e620b6b60ec",\n "businessNeed": "Supporting a bid",\n "description": "Post Office Microsite doesn't work in IE - need urgent space for a team of 50 developers to get it working",\n "start": "2014-09-04T09:42:12.982Z",\n "end": "2014-09-08T23:00:00.000Z",\n "created": "2014-09-04T09:43:58.505Z",\n "completed": false,\n "accepted": false\n }\n]\n```
PUT	Updates the request with new information

		Request form paramaters	
		start	The start date of the request
		end	The end date of the request
		description	A description of the nature of the request
		businessNeed	The justification for making the request from a business need perspective
		numberOfSeats	The number of seats required
		accepted	True/False - indicates that an admin has accepted the request
		completed	True/False - indicates that the request has been completed or resolved with the user.

Example output

```
{
    "message": "Request updated!"
}
```

DELETE Deletes the request

Request form paramaters
None

Example output

```
{
    "message": "Successfully deleted"
}
```

/api/projects/

Access: All

Token Required: No

Methods

GET	Gets a list of all projects regardless of date
	Request form paramaters None **Example output** ```[{ "_id": "5405e74d7f208e620b6b60ec", "projectName": "Testing booking modifications", "projectType": "Development", "start": "1970-01-01T00:00:00.003Z", "end": "1970-01-01T00:00:00.003Z" }]```

/api/projects/active

Access: All

Token Required: No

Methods

GET	Gets a list of all active projects (currently using the space)
	Request form paramaters None **Example output** ```[{ "_id": "5405e74d7f208e620b6b60ec", "projectName": "Testing booking modifications", "projectType": "Development", "start": "2014-09-08T00:00:00.003Z", "end": "2014-09-09T00:00:00.003Z" }]```