

# AvokTech API Documentation

V 0.1.7

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## Schemas

### Account:

<b>id:</b> String,	<i>unique for each user</i>
<b>firstName:</b> String,	
<b>lastName:</b> String,	
<b>email:</b> String,	<i>functions as a username (unique)</i>
<b>password:</b> String,	<i>the value is hashed for security</i>
<b>phone:</b> String,	
<b>photo:</b> Object,	
<b>reservations:</b> List {	<u>Reservation class</u>
<b>lotId:</b> String,	<i>referencing the lot id of the reservation</i>
<b>space:</b> int,	<i>referencing the space of the lot</i>
<b>start:</b> long,	<i>start time of reservation</i>
<b>duration:</b> int,	<i>duration (in hours) of reservation</i>
},	
<b>paid:</b> boolean	
<b>billingAddress:</b> {	<u>Address class</u>
<b>street:</b> String,	
<b>city:</b> String,	
<b>state:</b> String,	
<b>zipcode:</b> String,	
},	
<b>creditCard:</b> String,	<i>specifics TBD</i>
<b>lots:</b> Map<String, String>,	<i>maps a lot id to the corresponding role,</i>
	<i>including:</i>
	<i>owner, manager, patrol, etc.</i>
<b>roles:</b> List<String>,	<i>list of systems admin roles, including:</i>
	<i>super, analytics, onboarding, etc.</i>

### Lot:

<b>id:</b> String,	<i>unique for each lot</i>
<b>name:</b> String,	
<b>type:</b> String,	<i>`residential` vs. `parking lot`</i>
<b>address:</b> {	<u>Address class</u>
<b>street:</b> String,	
<b>city:</b> String,	
<b>state:</b> String,	
<b>zipcode:</b> String,	
},	

<b>location:</b> double[],	<i>(lng, lat) pair</i>
<b>photo:</b> Object,	
<b>rate:</b> Map<String, double>,	<i>maps the rate type (hourly, daily, etc.) to the value of the rate</i>
<b>rateRatio:</b> double,	<i>scale multiplier of rate (default 1.0)</i>
<b>capacity:</b> int,	
<b>occupied:</b> int,	
<b>reservable:</b> boolean,	
<b>reserveMax:</b> int,	<i>the maximum number of reservable spaces</i>
<b>spaces:</b> List {	<i><u>Space class</u></i>
<b>reservable:</b> boolean,	<i>if the space is reservable</i>
<b>photo:</b> Object,	
<b>calendar:</b>	<i>maps the time (by hour) to the associated account</i>
Map<Long, String>,	<i>id reserved at that time (null if available)</i>
},	
<b>members:</b> List<String>,	<i>list of account ids with access to the lot</i>
<b>lotHistoryId:</b> String,	<i>id pointing to the lot's data history</i>

#### LotHistory:

<b>id:</b> String,	<i>unique for each lot</i>
<b>history:</b>	<i>list of pairs of time and occupancy</i>
List<(Long, Integer)>,	

#### RawHistory:

<b>accountId:</b> String,	<i>account id associated with reservation</i>
<b>lotId:</b> String,	<i>lot id associated with reservation</i>
<b>space:</b> int,	<i>space of lot</i>
<b>date:</b> int,	<i>start time of reservation</i>
<b>duration:</b> int,	<i>duration (in hours) of reservation</i>
<b>search:</b> String,	<i>search query associated with reservation</i>
<b>events:</b> List<String>,	<i>list of events near reservation location</i>

## Endpoints

*Required fields are listed under the endpoint.*

*All `date` fields are represented in milliseconds.*

### **GET**

#### Account

<code>/listAccounts</code>	<i>return all accounts</i>
<code>/accountById</code> <code>accountId</code>	<i>returns account with corresponding id</i>
<code>/accountByEmail</code> <code>email</code>	<i>returns account with corresponding email</i>

#### Lots

<code>/listLots</code>	<i>returns all lots</i>
<code>/lotById</code> <code>id</code>	<i>returns lot with corresponding id</i>
<code>/searchNear</code> <code>latitude</code> <code>longitude</code>	<i>returns lots within 1 mile of the location</i>

#### LotHistory

<code>/listLotHistory</code>	<i>returns all lot history</i>
<code>/lotHistory</code> <code>lotHistoryId</code>	<i>returns lot history with corresponding id</i>

#### RawHistory

<code>/listRawHistory</code>	<i>returns all raw history</i>
<code>/rawHistoryByAccount</code> <code>accountId</code>	<i>returns raw history for corresponding account</i>
<code>/rawHistoryByLot</code> <code>lotId</code>	<i>returns raw history for corresponding lot</i>
<code>/rawHistoryByDate</code> <code>date</code>	<i>returns raw history for corresponding date</i>

### **POST**

#### Account

<code>/newAccount</code> <code>firstName</code> <code>lastName</code> <code>email</code> <code>password</code>	<i>creates a new account</i>
<code>/addRole</code> <code>accountId</code> <code>role</code>	<i>adds a systems admin role to the account</i>

## Lots

<code>/newLot</code>	<i>creates a new lot</i>
<code>    accountId</code>	
<code>    name</code>	
<code>    type</code>	
<code>    address</code>	
<code>    latitude</code>	
<code>    longitude</code>	
<code>    rateType</code>	
<code>    price</code>	
<code>    capacity</code>	
<code>    reserveMax</code>	
<code>/entered</code>	<i>increases the occupancy of the lot by 1</i>
<code>    lotId</code>	
<code>/exited</code>	<i>decreases the occupancy of the lot by 1</i>
<code>    lotId</code>	
<code>/changeReserveMax</code>	<i>changes the number of reservable spots</i>
<code>    lotId</code>	
<code>    reserveMax</code>	
<code>/addMember</code>	<i>adds a member to the lot</i>
<code>    lotId</code>	
<code>    email</code>	
<code>    role</code>	
<code>/setCalendar</code>	<i>sets the reservation calendar of the lot</i>
<code>    lotId</code>	
<code>    startTimes</code>	<i>a list of the start times for each time block</i>
<code>    durations</code>	<i>a list of durations for each time block</i>
<code>/reserve</code>	<i>adds a reservation for the lot</i>
<code>    lotId</code>	
<code>    accountId</code>	
<code>    startTimes</code>	<i>a list of the start times for each time block</i>
<code>    durations</code>	<i>a list of durations for each time block</i>
<code>    search</code>	<i>the search query of the reservation</i>
<code>/clearReservations</code>	<i>clears all reservations of the lot</i>
<code>    lotId</code>	