ROPER API

# OVERVIEW

This guide documents the ROPER Application Programming Interface (API). This API supports the Representation State Transfer (REST) design pattern.

This API accepts and produces the application/json media type.

## Authentication

Authorization to the API uses HTTP Basic Authorization (see [RFC 2617](https://www.ietf.org/rfc/rfc2617.txt) for more information). Requests must supply authorization credentials in the Authorization header using a Base64 encoded hash of "username:password".

## Resources

### Naming

Resource names represent nouns and identify the entity being manipulated or accessed. All collection resources are pluralized to indicate to the client they are interacting with a collection of multiple resources of the same type. Singular resource names are used when there exists only one resource available to interact with.

The following naming conventions are used by this API:

|  |  |
| --- | --- |
| Type | Case |
| Resource names | lower\_snake\_case |
| Header, body, and query parameters parameters | camelCase |
| JSON fields and property names | camelCase |

### Collections

A collection resource is a parent resource for instance resources, but can itself be retrieved and operated on independently. Collection resources use a pluralized resource name. The resource path for collection resources follow the convention:

/WebService/webapi/{resource\_name}

### Verbs

The following HTTP operations are supported throughout this API. The general usage of the operation and both its failure and success status codes are outlined below.

|  |  |  |  |
| --- | --- | --- | --- |
| Verb | Usage | Success | Failure |
| GET | Used to retrieve a resource by identifier, or a collection of resources. | 200 | 400, 401,403, 404, 405, 406, 500 |
| POST | Creates a resource with a specified identifier. | 201 | 400, 401, 404, 405, 408, 412, 413, 415, 500 |
| PUT | Performs a full update of a resource with a specified identifier. | 201 | 400, 401, 404, 405, 408, 412, 413, 415, 500 |
| DELETE | Deletes a resource by identifier. | 200 | 400, 401, 404, 405, 408, 412, 413, 415, 500 |

### Common Operations

#### GET

The GET operation invoked on a collection resource indicates a request to retrieve all, or some, of the entities contained within the collection. The response to a successful GET request should be a 200 OK.

#### POST

The POST is a non-idempotent operation that allows for the creation of a new resource. The content of the POST request is sent in the request body. The response to a successful POST request should be a 201 CREATED.

#### PUT

The PUT is an idempotent operation that either performs a create with user-supplied identity, or a full replace or update of a resource by a known identifier. The response to a PUT operation to create an entity is a 201 Created.

#### DELETE

The DELETE is an idempotent operation that physically deletes a resource, or removes an association between resources. The response to a successful DELETE request should be a 200 OK.

### Requests

The default request body media type is application/json.

Headers

Commonly used request headers include:

|  |  |  |
| --- | --- | --- |
| Header | Example | Purpose |
| Accept | application/json | Defines what acceptable content types are allowed by the client. For all types, use \*/\*. |
| Authorization | Basic Base64("username:password") | Basic authentication |

### Responses

The following response statuses may be returned by this API.

|  |  |  |
| --- | --- | --- |
| **Status** | **Meaning** | **Usage** |
| 200 | OK | The operation performed without error according to the specification of the request, and no more specific 2xx code is suitable. |
| 201 | Created | A create request has been fulfilled and a resource has been created. The resource is available as the URI specified in the response, including the Location header. |
| 202 | Accepted | An asynchronous task has been accepted, but not guaranteed, to be processed in the future. |
| 400 | Bad Request | The request was invalid or cannot be otherwise served. The request is not likely to succeed in the future without modifications. |
| 401 | Unauthorized | The user is unauthorized to perform the operation requested, or does not maintain permissions to perform the operation on the resource specified. |
| 403 | Forbidden | The resource exists to which the user has access, but the operating requested is not permitted. |
| 404 | Not Found | The resource specified could not be located, does not exist, or an unauthenticated client does not have permissions to a resource. |
| 405 | Method Not Allowed | The operations may not be performed on the specific resource. Allowed operations are returned and may be performed on the resource. |
| 408 | Request Timeout | The client has failed to complete a request in a timely manner and the request has been discarded. |
| 413 | Request Entity Too Large | The request being provided is too large for the server to accept processing. |
| 415 | Unsupported Media Type | The media type is not supported for the requested resource. |
| 500 | Internal Server Error | An internal and unexpected error has occurred on the server at no fault of the client. |

### Instances

An instance resource is a "leaf" level resource that may be retrieved, optionally nested within a collection resource. Instance resources are usually retrievable with opaque identifiers. The resource path for instance resources follows the convention:

/WebService/webapi/{resource\_name}/{instanceName}/...

### Requests

The default request body media type is application/json.

Headers

Commonly used request headers include:

|  |  |  |
| --- | --- | --- |
| Header | Example | Purpose |
| Accept | application/json | Defines what acceptable content types are allowed by the client. For all types, use \*/\*. |
| Authorization | Basic Base64("username:password") | Basic authentication |

### Dates & Times

Dates and/or times are specified as strings .

The following format is supported:dd/MM/yyyy

# URLS

**Postman collection link:**

https://www.getpostman.com/collections/2bddba70a3d7bf7da249

## Person Class

### Get all users

**GET**

**Url:**{{host}}/WebService/webapi/person\_service/users

**Input:**non

**Return:** all users (Array).

### Get user

**GET**

**Url:**{{host}}/WebService/webapi/person\_service/login?loginName={user login name}

**Input:**Path param: String loginName

**Return:** Person Entity.

*Note: Authentication header is not needed for this request.*

### Add user

**POST**

**Url:**{{host}}/WebService/webapi/person\_service/user

**Input:**Person object:

{

"firstName":"first name",

"lastName":"last name",

"email":"email",

"loginName": "login name",

"password": "password",

"type": "type",

"dateOfBirthStr":"2/2/1990"

}

**Return:** the new user object

### Update user

**PUT**

**Url:**{{host}}/WebService/webapi/person\_service/user

**Input:**The values to be updated in the person object

\*id is must be present with the user id value.

{

"id":{person id},

"firstName":"new first name",

"lastName":"new last name",

"email":"new email",

"loginName": "new login name",

"password": "new password",

"dateOfBirthStr":"new 3/3/1990"

}

**Return:**the updated user

### Delete user

**DELETE**

**Url:**{{host}}/WebService/webapi/person\_service/user

**Input:**Person object with id.

{

"Id":{person id}

}

**Return:**the deleted user

### Recover password

**PUT**

**Url:**{{host}}/WebService/webapi/person\_service/password

**Input:**Person object with the values:

Date of birth, email,first name, last name, login name.

{

"dateOfBirthStr": "3/3/1990",

"email": "new email",

"firstName": "new first name",

"lastName": "new last name",

"loginName": "new login name"

}

**return:**Person object with all details (password included).

*\*Note: Authentication header is not needed for this request.*

## Business owner Class

### Get Business owners

**GET**

**Url:**{{host}}/WebService/webapi/business\_owner\_service/businessOwners

**Input:** none

**Return:**All business owners (Array).

### Get Business owner

**GET**

**Url:**{{host}}/WebService/webapi/business\_owner\_service/businessOwner?loginName={user login name}

**Input:**Path param: String loginName.

**Return:** Business owner Entity.

### Add Business owner

**POST**

**Url:**{{host}}/WebService/webapi/business\_owner\_service/businessOwner

**Input:**Business owner object

{

"firstName":"first name",

"lastName":"last name",

"email":"email",

"loginName": "login name",

"password": "password",

"type": "Business owner",

"dateOfBirthStr":"2/2/1990"

}

**Return:** the new Business owner

*\*Note: Authentication header is not needed for this request.*

### Update Business owner

**PUT**

**Url:**{{host}}/WebService/webapi/business\_owner\_service/businessOwner

**Input:**The values to be updated in the business owner object

\*id is must be present with the user id value.

{

"id":{Business owner id},

"firstName":"new first name",

"lastName":"new last name",

"email":"new email",

"loginName": "new login name",

"password": "new password",

"dateOfBirthStr":"new 3/3/1990"

}

**Return:**the updated Business owner

### Remove Business owner

**DELETE**

**Url:**{{host}}/WebService/webapi/business\_owner\_service/businessOwner

**Input:**Business owner object with id.

{

"id":{Business owner id}

}

**Return:**the deleted Business owner

### Add Business to Business owner

**PUT**

**Url:**{{host}}/WebService/webapi/business\_owner\_service/business?id={business id}

**Input:**Path param:Long business id,

Business owner object with id.

{

"id":{Business owner id}

}

**Return:** the new business owner.

### Remove Business from Business owner

**DELETE**

**Url:**{{host}}/WebService/webapi/business\_owner\_service/business?id={business id}

**Input:**Path param:Long business id,

Business owner object with id.

{

"id":{Business owner id}

}

**Return:** the new business owner.

## Tourist Class

### Get Tourists

**GET**

**Url:**{{host}}/WebService/webapi/tourist\_service/tourists

**Input:** none

**return:**all toursits (Array).

### Get Tourist

**GET**

**Url:**{{host}}/WebService/webapi/tourist\_service/tourist?loginName={user login name}

**Input:**Path Param:String tourist loginName

**return:**tourist Entity.

### Get tourist dto

**GET**

**Url:**{{host}}/WebService/webapi/tourist\_service/login?loginName={user login name}

**Input:**Path Param:String tourist loginName

**Return:**tourist dto Entity.

### Add Tourist

**POST**

**Url:**{{host}}/WebService/webapi/tourist\_service/tourist

**Input:**Tourist object

{

"firstName":"first name",

"lastName":"last name",

"email":"email",

"loginName": "login name",

"password": "password",

"type": "Business owner",

"dateOfBirthStr":"2/2/1990"

}

**Return:** the new tourist.

*\*Note: Authentication header is not needed for this request.*

### Update Tourist

**PUT**

**Url:**{{host}}/WebService/webapi/tourist\_service/tourist

**Input:**The values to be updated in the tourist object

\*id is must be present with the user id value.

{

"id":{Tourist id},

"firstName":"new first name",

"lastName":"new last name",

"email":"new email",

"loginName": "new login name",

"password": "new password",

"dateOfBirthStr":"new 3/3/1990"

}

**Return:**the updated tourist.

### Remove Tourist

**DELETE**

**Url:**{{host}}/WebService/webapi/tourist\_service/tourist

**Input:**Tourist object with id.

{

"id":{Tourist id}

}

**Return:**the deleted tourist

### Add Quest to Tourist

**PUT**

**Url:**{{host}}/WebService/webapi/tourist\_service/quest?id={quest id}

**Input:**Path param:Long quest id,

Tourist object with id.

{

"id":{Tourist id}

}

**Return:** the new tourist.

### Remove Quest from Tourist

**DELETE**

**Url:**{{host}}/WebService/webapi/tourist\_service/quest?id={quest id}

**Input:**Path param:Long quest id,

Tourist object with id.

{

"id":{Tourist id}

}

**Return:** the deleted tourist.

## Business class

### Get Businesses

**GET**

**Url:{**{host}}/WebService/webapi/business\_service/businesses

**Input:** none

**return:**all businesses(Array).

### Get nearby Businesses

**GET**

**Url:**{{host}}/WebService/webapi/business\_service/nearByBusinesses?radius={radius}&longitude={longitude}&latitude={latitude}

**Input:**Path Params:Double radius,String longitude,String latitude.

**return:**businesses(Array).

### Get nearby Businesses by type

**GET**

**Url:**{{host}}/WebService/webapi/business\_service/nearByBusinessesByType?radius={radius}&longitude={longitude}&latitude={latitude}&type={business type}

**Input:**Path Params:Double radius,String longitude,String latitude,String business type.

**return:**businesses(Array).

### Get Business

GET

**Url:**{{host}}/WebService/webapi/business\_service/business?name={business name}&latitude={business address latitude}&longitude={business address longitude}

**Input:** Path param String business name, String business address latitude, String business address longitude,

**return:**business Entity.

### Add Business

**POST**

**Url:**{{host}}/WebService/webapi/business\_service/business?id={business owner id}

**Input:**Path param:Long business owner id,

Business object.

{

"address": "address",

"latitude": "lat",

"longitude": "lng",

"name": "name",

"missionToken":"token",

“promotionInfo:”Promotion info”,

"onPromotion": true

}

**Return:** the new business

### Update Business

**PUT**

**Url:**{{host}}/WebService/webapi/business\_service/business

**Input:**The values to be updated in the business object

\*id is must be present with the user id value.

{

"id": {business id},

"address": "new address",

"latitude": "new lat",

"longitude": "new lng",

"name": "new name",

"missionToken":"new \*token",

“promotionInfo:”Promotion info”,

"onPromotion": true

}

**Return:**the updated business

### Delete Business

**DELETE**

**Url:**{{host}}/WebService/webapi/business\_service/business

**Input:**business object with id.

{

"id":{business id}

}

**Return:**the deleted business

### Add Business owner

**PUT**

**l:**{{host}}/WebService/webapi/business\_service/businessOwner?id={business id}

**Input:**Path param:Long business id,

Business owner object with id.

{

"id":{Business owner id}

}

**Return:**the business owner

### Remove Business owner

**DELETE**

**Url:**{{host}}/WebService/webapi/business\_service/businessOwner?id={business id}

**Input:**Path param: business id,

Business owner object with id.

{

"id":{Business owner id}

}

**Return:**the deleted business owner

## Category Class

### Get all Categories

**GET**

**Url:**{{host}}/WebService/webapi/category\_service/categories

**Input:** none

**Return:**all categories (array).

### Get Categories by type

**GET**

**Url:**{{host}}/WebService/webapi/category\_service/categoriesByType?type={type}

**Input:** Path param: String type.

**Return:**Categories list (array).

### Add Category

**Post**

**Url:**{{host}}/WebService/webapi/category\_service/category

**Input:**Category object

{

"name": "name",

"displayName": "display name",

"type": "type"

}

**Return:** the new category

### Update Category

**PUT**

**Url:**{{host}}/WebService/webapi/category\_service/category

**Input:**The values to be updated in the category object

\*id is must be present with the user id value.

{

"Id":{category id},

"name": "new name",

"displayName": "new display name",

"type": "new type"

}

**Return:**the updated category

### Delete Category

**DELETE**

**Url:**{{host}}/WebService/webapi/category\_service/category

**Input**:category object with id.

{

"id":{category id}

}

**Return:**the deleted category

## Settings Class

### Get Settings

**GET**

**Url:**{{host}}/WebService/webapi/settings\_service/settings

**Input:**none

**Return:**settings object.

### Add Settings

**POST**

**Url:**{{host}}/WebService/webapi/settings\_service/settings

**Input:**Setting object

{

"defaultRadius":1,

"defalutTypes":"cafe,restaurant,shopping\_mall,taxi\_stand",

"googlePlacesKey":"key"

}

**Return:** the new settings

### Update Settings

**PUT**

**Url:**{{host}}/WebService/webapi/settings\_service/settings

**Input:**The values to be updated in the settingsobject

\*id is must be present with the user id value.

{

"id": {settings id},

"defalutTypes": "new types list",

"defaultRadius": 11,

"googlePlacesKey": "new key"

}

**Return:**the updated settings

## Quest Class

### Get Quests

**GET**

**Url:**{{host}}/WebService/webapi/quest\_service/quests

**Input:** none

**return:**all quests(Array).

### Get Quest

**GET**

**Url:**{{host}}/WebService/webapi/quest\_service/quest?name={quest name}

**Input:** Path param String quest name

**return:**quest Entity.

### Add Quest

**POST**

**Url:**{{host}}/WebService/webapi/quest\_service/quest

**Input:**Quest object

{

"description": "description",

"difficulty": "difficulty",

"name": "name"

"status": "Ongoing/Done"

}

**Return:** the new quest.

### Update Quest

**PUT**

**Url:**{{host}}/WebService/webapi/quest\_service/quest

**Input:**The values to be updated in the quest object

\*id is must be present with the user id value.

{

"id":{quest id},

"description": "new description",

"difficulty": "new difficulty",

"name": "new name"

"status": "Ongoing/Done"

}

**Return:**the updated quest.

### Remove Quest

**DELETE**

**Url:**{{host}}/WebService/webapi/quest\_service/quest

**Input:**Quest object with id.

{

"id":{quest id}

}

**Return:**the deleted quest

### @REMOVED

### Add Mission to Quest

**PUT**

**Url:**{{host}}/WebService/webapi/quest\_service/mission?id={mission id}

**Input:**Path param:Long mission id,

Quest object with id.

{

"id":{Quest id}

}

**Return:** the new Quest.

### @REMOVED

### Remove Mission from Quest

**DELETE**

**Url:**{{host}}/WebService/webapi/quest\_service/mission?id={mission id}

**Input:**Path param:Long mission id,

Quest object with id.

{

"id":{Quest id}

}

**Return:** the deleted Quest.

## Mission Class

### Get Missions

**GET**

**Url:**{{host}}/WebService/webapi/mission\_service/missions

**Input:** none

**return:**all missions(Array).

### Get Mission

**GET**

**Url:**{{host}}/WebService/webapi/mission\_service/mission?name={mission name}

**Input:** Path param String mission name

**return:**mission Entity.

### Add Mission

**POST**

**Url:**{{host}}/WebService/webapi/mission\_service/mission?id={quest id}

**Input:**Mission object

{

"description": "description",

"difficulty": "difficulty",

"name": "name",

"status": "done/on going"

}

**Return:** the new mission.

### Update Mission

**PUT**

**Url:**{{host}}/WebService/webapi/mission\_service/mission

**Input:**The values to be updated in the mission object

\*id is must be present with the user id value.

{

"id":{mission id},

"name": "new name",

"description": "new description",

"difficulty": "new difficulty",

"status": "done/on going"

}

**Return:**the updated mission.

### Remove Mission

**DELETE**

**Url:**{{host}}/WebService/webapi/mission\_service/mission

**Input:**Mission object with id.

{

"id":{mission id}

}

**Return:**the deleted mission

### Add Quest to Mission

**PUT**

**Url:**{{host}}/WebService/webapi/mission\_service/quest?id={quests id}

**Input:**Path param:Long mission id,

Quest object with id.

{

"id":{mission id}

}

**Return:** the new Quest.

### Remove Quest from Mission

**DELETE**

**Url:**{{host}}/WebService/webapi/mission\_service/quest?id={quests id}

**Input:**Path param:Long mission id,

Quest object with id.

{

"id":{mission id}

}

**Return:** the deleted Quest.

### Add business to Mission

**PUT**

**Url:**{{host}}/WebService/webapi/mission\_service/business?id={business id}

**Input:**Path param:Long mission id,

Quest object with id.

{

"id":{mission id}

}

**Return:** the new Quest.

@depricated.

### Remove business from Mission

**DELETE**

**Url:**{{host}}/WebService/webapi/mission\_service/business?id={business id}

**Input:**Path param:Long mission id,

Quest object with id.

{

"id":{mission id}

}

**Return:** the deleted Quest.

# Entities

## Basic entity

**Description:**This is the basic object that all object most inherit from to get the database automatic id and creation time.

**Model name**:BaseEntity

**Class variables:**

*long* id, **column name**:auto\_id,**definitions**:updatable = false, nullable = false

*Calendar* creationDate, **column name**:creation\_date

## Person entity

**Description:**This is the basic user object that all user types must inherits from (business owner, tourist),

Administrator user defined as a Person object.

**Model name:**Person

**Inheritance from:**BaseEntity

**Class variables:**

*String* type, **column name**:type

*String* firstName, **column name**:first\_name

*String* lastName, **column name**:last\_name

*String* loginName, **column name**:login\_name

*String* email, **column name**:email

*String* dateOfBirthStr, **column name**:date\_of\_birth\_str

*Calendar* dateOfBirth, **column name**:date\_of\_birth

## Business owner entity

**Description:**This object is representing a business owner.

**Model name:**BusinessOwner

**Inheritance from:**Person

**Class variables:**

*Set<Business>* businesses

## Tourist entity

**Description:**This object is representing a tourist.

**Model name:**Tourist

**Inheritance from:**Person

**Class variables:**

*String* gender, **column name**:gender

*Double* age, **column name**:age

*String* nativeLanguage, **column name**:native\_language

*String* spokenLanguages, **column name**:spoken\_languages, **note**:Comma separated string

*String* vicationType, **column name**:vication\_type

*Boolean* meetPeople, **column name**:meet\_people

*Double* radiusThreshold, **column name**:radius\_threshold

*Boolean* moreInformation, **column name**:more\_information

*String* preferences, **column name**:finished\_quests, **note**:Comma separated string

*String* String finishedQuests, **column name**:finished\_quests, **note**:Comma separated string

*Set<Quest>* quests

## Tourist Data transfer object entity

**Description:**This object contains a tourist object info and the default settings info to auto complete missing settings from the tourist.

This object will be transferred between pages in the ROPER application.

**Model name:**TouristDto

**Inheritance from:**Person

**Class variables:**

*String* gender, **column name**:gender

*Double* age, **column name**:age

*String* nativeLanguage, **column name**:native\_language

*String* spokenLanguages, **column name**:spoken\_languages, **note**:Comma separated string

*String* vicationType, **column name**:vication\_type

*Boolean* meetPeople, **column name**:meet\_people

*Double* radiusThreshold, **column name**:radius\_threshold

*Boolean* moreInformation, **column name**:more\_information

*String* preferences, **column name**:finished\_quests, **note**:Comma separated string

*String* String finishedQuests, **column name**:finished\_quests, **note**:Comma separated string

*Set<Quest>* quests

*Double* defaultRadius, **column name**:default\_radius

*String* defaultTypes, **column name**:default\_types, **note**:Comma separated string

*String* googlePlacesKey, **column name**:google\_places\_key

## Business entity

**Description:**This object is representing a business.

**Model name:**Business

**Inheritance from:**BaseEntity

**Class variables:**

*String* name, **column name**:name

*String* types, **column name**:types, **note**:Comma separated string

*String* type, **column name**:type

*Boolean* onPromotion, **column name**:on\_promotion

*Boolean* openNow, **column name**:open\_now

*String* promotionInfo, **column name**:promotion\_info

*String* longitude, **column name**:longitude

*String* address, **column name**:address

*String* icon, **column name**:icon

*String* priceLevel, **column name**:latituprice\_levelde

*String* rating, **column name**:rating

*String* userRatingsTotal, **column name**:user\_ratings\_total

*String* missionToken, **column name**:mission\_token

*Set<BusinessOwner>* businessOwners

*Set<Mission> missions*, **definitions:** JsonbTransient

## Settings entity

**Description:**This object is representing a set of predefined settings.

**Model name:**Settings

**Inheritance from:**BaseEntity

**Class variables:**

*Double* defaultRadius, **column name**:default\_radius

*String* defaultTypes, **column name**:default\_types, **note**:Comma separated string

*String* googlePlacesKey, **column name**:google\_places\_key

## Category entity

**Description:**This object is representing a set of categories to be used in the ROPER application.

**Model name:**Category

**Inheritance from:**BaseEntity

**Class variables:**

*String* name, **column name**:name

*String* displayName, **column name**:display\_name

*String* type, **column name**:type

## Quest entity

**Description:**This object is representing a quest object.

**Model name:**Quest

**Inheritance from:**BaseEntity

**Class variables:**

*String* name, **column name**:name

*String* difficulty, **column name**:difficulty

*String* description, **column name**:description

*String* status, **column name**:status

*Set<Tourist>* tourists, **definitions:** JsonbTransient

*Set<Mission>* missions

## Mission entity

**Description:**This object is representing a mission object.

**Model name:**Mission

**Inheritance from:**BaseEntity

**Class variables:**

*String* name, **column name**:name

*String* difficulty, **column name**:difficulty

*String* description, **column name**:description

*boolean* isDone, **column name**:is\_done

*Set<Business>* businesses

*Set<Quest>* quests , **definitions:** JsonbTransient