

## Task description

We have a fleet of 10 drones. A drone is capable of carrying devices, other than cameras, and capable of delivering small loads. For our use case the load is medications.

A Drone has:

- serial number (100 characters max);
- model (Lightweight, Middleweight, Cruiserweight, Heavyweight);
- weight limit (500gr max);
- battery capacity (percentage);
- state (IDLE, LOADING, LOADED, DELIVERING, DELIVERED, RETURNING).

Each Medication has:

- name (allowed only letters, numbers, '-', '\_', '\_');
- weight;
- code (allowed only upper-case letters, underscore and numbers);
- image (picture of the medication case).

Develop a service via REST API that allows clients to communicate with the drones (i.e. dispatch controller).

The specific communication with the drone is outside the scope of this task. The service should allow:

registering a drone;  
loading a drone with medication items;  
checking loaded medication items for a given drone;  
checking available drones for loading;  
check drone battery level for a given drone;

## Show functional API Rest

### Register a drone

The screenshot shows a REST client interface with the following details:

- URL:** `http://localhost:8080/drone/register`
- Method:** `POST`
- Body (Request):**

```
{  "serial_number": "131313",  "model": "lightweight",  "weight_limit": 500.0,  "battery_capacity": 20}
```
- Status:** `200 OK`, Time: 337 ms, Size: 289 B
- Body (Response):**

```
{  "serial_number": "131313",  "model": "lightweight",  "weight_limit": 500.0,  "battery_capacity": 20,  "state": "IDLE",  "medications": null}
```

### Loading a drone with a specific medicine

If medicine not exist, its created

http://localhost:8080/drone/loading/131313

POST http://localhost:8080/drone/loading/131313

Params Authorization Headers (8) Body Pre-request Script Tests Settings

none form-data x-www-form-urlencoded raw binary JSON

1 2 3 4 5 6

```
1 {
2   "name": "DDD",
3   "weight": 10,
4   "code": "DDD",
5   "image": "DDD"
6 }
```

Body Cookies Headers (5) Test Results

Status: 200 OK Time: 69 ms Size: 344 B Save Response

Pretty Raw Preview Visualize JSON

```
1 {
2   "serial_number": "131313",
3   "model": "Lightweight",
4   "weight_limit": 500.00,
5   "battery_capacity": 30,
6   "state": "LOADING",
7   "medications": [
8     {
9       "name": "DDD",
10      "weight": 10,
11      "code": "DDD",
12      "image": "DDD"
13    }
14  ]
15 }
```

## Aggregate a new medicine

http://localhost:8080/medication/save

POST http://localhost:8080/medication/save

Params Authorization Headers (8) Body Pre-request Script Tests Settings

none form-data x-www-form-urlencoded raw binary JSON

1 2 3 4 5 6

```
1 {
2   "name": "DDD",
3   "weight": 10,
4   "code": "CCC",
5   "image": "DDD"
6 }
```

Body Cookies Headers (5) Test Results

Status: 200 OK Time: 9 ms Size: 217 B Save Response

Pretty Raw Preview Visualize JSON

```
1 {
2   "name": "DDD",
3   "weight": 10,
4   "code": "CCC",
5   "image": "DDD"
6 }
```

## Associate a list of medicines to drone

PUT

http://localhost:8080/drone/loading\_medications?serial=131313&code=CCC,DDD

Add to collection

</>

PUT

http://localhost:8080/drone/loading\_medications?serial=131313&code=CCC,DDD

Send

Params

Authorization

Headers (7)

Body

Pre-request Script

Tests

Settings

Cookies

none

form-data

x-www-form-urlencoded

raw

binary

This request does not have a body.

Body

Cookies

Headers (5)

Test Results

Status: 200 OK

Time: 22 ms

Size: 404 B

Save Response

Pretty

Raw

Preview

Visualize

JSON

```
1
2  {
3    "serial_number": "131313",
4    "model": "lightweight",
5    "weight_limit": 600.00,
6    "battery_capacity": 30,
7    "state": "LOADING",
8    "medications": [
9      {
10       "name": "DDD",
11       "weight": 10.00,
12       "code": "DDD",
13       "image": "DDD"
14     },
15     {
16       "name": "DDD",
17       "weight": 10.00,
18       "code": "CCC",
19       "image": "DDD"
20     }
21   ]
22 }
```

## View medicines for specific drone

GET

http://localhost:8080/drone/check\_medicine/131313

Add to collection

</>

GET

http://localhost:8080/drone/check\_medicine/131313

Send

Params

Authorization

Headers (6)

Body

Pre-request Script

Tests

Settings

Cookies

Query Params

Key	Value	Bulk Edit
Key	Value	

Body

Cookies

Headers (5)

Test Results

Status: 200 OK

Time: 11 ms

Size: 279 B

Save Response

Pretty

Raw

Preview

Visualize

JSON

```
1
2  {
3    "name": "DDD",
4    "weight": 10.00,
5    "code": "DDD",
6    "image": "DDD"
7  },
8  {
9    "name": "DDD",
10   "weight": 10.00,
11   "code": "CCC",
12   "image": "DDD"
13 }
14
```

## Show drones available to loading

GET

http://localhost:8080/drone/available\_loading

Add to collection

</>

GET

http://localhost:8080/drone/available\_loading

Send

Params

Authorization

Headers (6)

Body

Pre-request Script

Tests

Settings

Cookies

Query Params

Key	Value	Bulk Edit
-----	-------	-----------

Body

Cookies

Headers (5)

Test Results

Status: 200 OK

Time: 9 ms

Size: 406 B

Save Response

Pretty

Raw

Preview

Visualize

JSON

```
1
2  {
3    "serial_number": "131313",
4    "model": "lightweight",
5    "weight_limit": 600.00,
6    "battery_capacity": 30,
7    "state": "LOADING",
8    "medications": [
9      {
10       "name": "DDD",
11       "weight": 10.00,
12       "code": "DDD",
13       "image": "DDD"
14     },
15     {
16       "name": "DDD",
17       "weight": 10.00,
18       "code": "CCC",
19       "image": "DDD"
20     }
21   ]
22 }
```

# Check battery for a specific drone

http://localhost:8080/drone/check\_battery/131313

GET

Send

Params

Authorization

Headers (6)

Body

Pre-request Script

Tests

Settings

Cookies

Query Params

Key	Value	Bulk Edit
Key	Value	

Body

Cookies

Headers (5)

Test Results

Status: 200 OK

Time: 11 ms

Size: 184 B

Save Response

Pretty

Raw

Preview

Visualize

Text

1

Battery level is: 98

# Show how obtain errors in a Json format

http://localhost:8080/drone/loading/131313

POST

Send

Params

Authorization

Headers (8)

Body

Pre-request Script

Tests

Settings

Cookies

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form-data

x-www-form-urlencoded

raw

binary

JSON

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