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

Loading a drone with a specific medicine

If medicine not exist, its created

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

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

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

```
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         }
```

Aggregate a new medicine

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

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

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

```
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

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 ∨   ⇥

```
 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": 10.00,
11                "code": "DDD",
12                "image": "DDD"
13            },
14            {
15                "name": "DDD",
16                "weight": 10.00,
17                "code": "CCC",
18                "image": "DDD"
```

View medicines for specific drone

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

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 ∨   ⇥

```
 3        "serial_number": "131313",
 4        "model": "Lightweight",
 5        "weight_limit": 500.00,
 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"
```

Check battery for a specific drone

http://localhost:8080/drone/check_battery/131313

Add to collection   </>

GET   http://localhost:8080/drone/check_battery/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: 184 B Save Response

Pretty Raw Preview Visualize Text

```
1   Battery level is: 30
```

Show how obtain errors in a Json format

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

Add to collection   </>

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

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

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

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

Body Cookies Headers (4) Test Results   Status: 400 Bad Request Time: 217 ms Size: 199 B Save Response

Pretty Raw Preview Visualize JSON

```
1
2   "errors": [
3       "Verify that the drone is in the database"
4   ]
5
```

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

Add to collection   </>

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

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

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

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

Body Cookies Headers (4) Test Results   Status: 400 Bad Request Time: 20 ms Size: 208 B Save Response

Pretty Raw Preview Visualize JSON

```
1
2   "errors": [
3       "The battery needs to recharge to continue filling"
4   ]
5
```