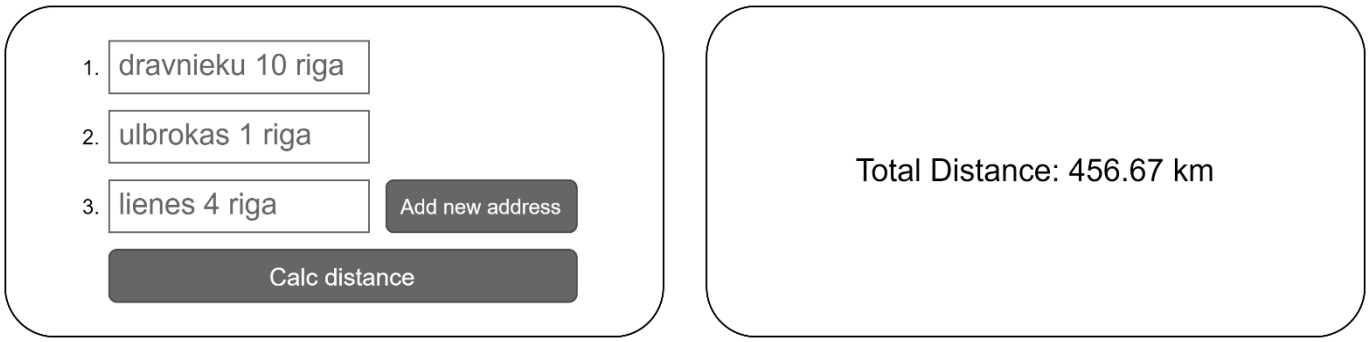
Task: create a webpage where user can enter several (up to 10) addresses
and press the “Calc distance” button to display the total length of the route between all objects.



Technologies to use: PHP + HTML + JAVASCRIPT/JQUERY + CSS/BOOTSTRAP

Description: Find the coordinates from the entered address using the geolocation API:

```
GET:
https://api.kartes.lv/v3/BMe5VREpq/search?q=dravnieku+10+riga&fields=name,x,y&iso_code=LVA&layers=adrese
```

```
REQUEST BODY:
{"adrese": [{"name": "Dravnieku iela 10, Rīga, Latgales pr-pilsēta, Latvija",
"x":24.21353, "y":56.943412, "iso_code": "LVA"}]
```

Then, using the found coordinates and the full name of the address, create an object for each address entered via the Create Object Mappost API:

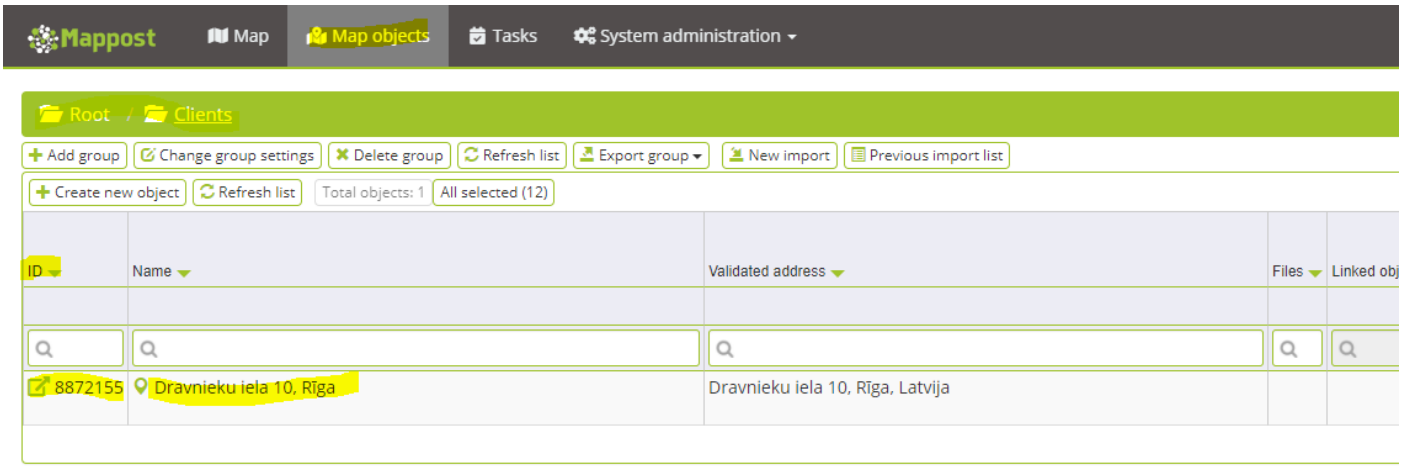
```
POST: https://dev.mappost.eu/api/v1/object/create
HTTP BASIC AUTH (USERNAME:PASSWORD): challenge:challengeme
```

```
REQUEST BODY:
{"Name":" Dravnieku iela 10, Rīga, Latgales pr-pilsēta, Latvija", "GroupID":
8116,"GeoJSONFeature":{"type":"Feature", "geometry":{"type":"Point",
"coordinates":[24.21353,56.943412]}, "properties":{}}}
```

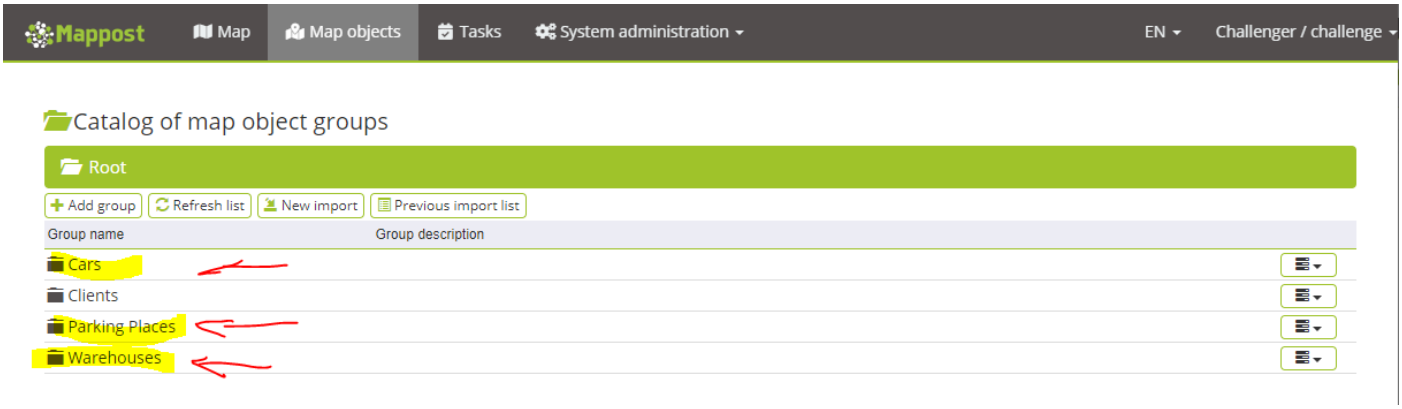
```
RESPONSE BODY:
{"Success": true, "ID": "8872155", "Errors": null, "ErrorMessage": null,
"ErrorObject": null, "AccessRightsType": "2", "RetryOnFailure": true}
```

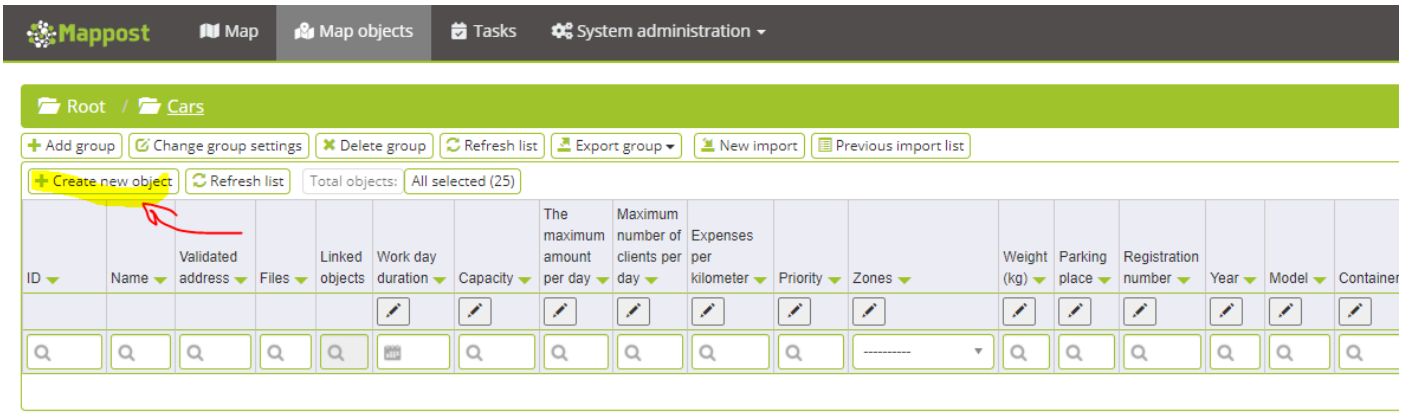
The response contains a created object ID (`8872155`). This ID is needed to calculate the total route length between objects using the *Mappost Solve Task API*.

You can view API objects created via API by logging in to the Mappost system (https://dev.mappost.eu/account/login) with the username and password **challenge: challengeme** and going to *Map objects -> Clients*.



To calculate the route length in the Mappost system, it is necessary to create new objects: *Parking Place*, *Car* and *Warehouse*. These objects must be created manually using the Mappost web interface. The locations (in Latvia) and the object names do not matter in this task.





When all objects have been created, a request can be submitted to Mappost for distance calculation.

- `Orders`: object IDs that are created dynamically based on user-entered addresses via the API;
- `Warehouses, ParkingPlaces, Cars`: object IDs that do not change and are created once, manually via the Mappost Web interface.

```
POST: https://dev.mappost.eu/api/v1/logistic/solve_task
HTTP BASIC AUTH (USERNAME:PASSWORD): challenge:challengeme
```

```
REQUEST BODY:
{"TaskType": "delivery",
"TaskName": "Logistic task 10:00-12:00",
"Orders": [{
    "ClientObjectID": "8872155",
    "Quantity": "1"
},{
    "ClientObjectID": "...",
    "Quantity": "1"
},{
    "ClientObjectID": "...",
    "Quantity": "1"
}],
"Warehouses": [{"WarehouseObjectID": "..."}],
"ParkingPlaces": [{"ParkingPlaceObjectID": "..."}],
"Cars": [{"CarObjectID": "..."}]}
```

```
RESPONSE BODY:
{"Success": true,
"TaskID": 8508263,
"Solution": {
    "Distance": 181946.53,
    "Score": 0.017514183185995,
    ...
```

In the answer, in the parameter “Distance” you can find the length of routes between all objects in meters. This value needs to be converted to kilometers and displayed on the webpage.