

TD	REST
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Objective of the session :
Getting started with REST.

1 First step to REST

Consider the following example of a company that sells vehicles. This company would like to have information about the vehicles it sells and make this information available to all sellers and potential buyers (in this example we will consider only some cars and some of their characteristics). For this purpose, a Rest API is implemented to provide this information to the different clients.

The following table shows a subset of the available vehicles and some of their characteristics.

ID	Vehicle	ModelYear	VehicleType	Gearbox	FuelType
1	Renault - Capture	2019	SUV	Automatic	Hybrid
2	Peugeot - 308	2020	Car	Manual	Gasoline
3	Ford - Focus	2015	Car	Manual	Gasoline
4	Reanult - Clio	2021	Car	Manual	Gasoline
5	Mercedes Benz - EQC	2019	SUV	Automatic	Hybrid

Exercises

Consider the following HTTP message structure (HTTP request and HTTP response). Fill in the fields of these messages to fulfill the following statements.

HTTP Request		HTTP Response
Header		
Oper	Endpoint	
Param/Body		

1. Define the paths and endpoints you consider necessary as well as the task of each operation.
2. Get all the vehicles.
3. Get one particular vehicle (e.g. 3). What happens if vehicle 10 is searched?
4. Create some new vehicle records.

5. Update a vehicle. Let's change his ModelYear.
 6. Delete a vehicle.
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2 Online REST API

GoRest¹ proposes an online free REST API for testing and prototyping Web applications. It also provides an online REST console for rapid testing (*signing up is necessary to get an "authentication token" to be used in the requests*).

Exercises

1. Familiarize yourself with the resources, request methods and the GoRest console on the website.
 2. Retrieve all the users that are called Vyctor.
 3. Retrieve all the users that are Female. Observe and interpret the first part of the answer.
 4. Choose a user and modify her name.
 5. There are also some plugins for Firefox or other browsers that allow to test REST request.
 - See, for example, RESTClient and POSTMAN.
 - Reproduce the previously proposed requests.
 6. cURL² is another tool that allows to make REST requests.
 - Open a terminal and reproduce the previously proposed requests (regarding the syntax and arguments for cURL you can see the documentation on the GoRest site).
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1. <https://gorest.co.in/>

2. Client URL is a command-line tool for getting or sending data using various network protocols. cURL supports HTTPS.