**The Gateways Problem Solution Description**

**Running the application**

In order to run the application, follow the steps below.

1. Clone the git repository using the following command:

git clone <https://github.com/IDAbushieshaa/Gateways.git>

1. Change directory to be inside the Gateways directory, and then run the following command.

./mvnw clean install

1. Change directory to the “target” directory and then run the following command

java -jar Gateways-0.0.1-SNAPSHOT.jar

1. Use the attached Postman collection to test the application.
2. Some hints regarding the postman collection.

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| API | Description |
| /create-gateway | Used to create a gateway. If it has the field devices filled, it will also add devices to be controlled by the added gateway. It’s important to mention if the request payload has the filed “id”, that means it will be used to update the currently existing gateway the entered “id” value rather than create a new gateway. Below is the payload. Another note to mention is that the “serialNumber” value is generated and entered only once at the data layer. It will always be ignored and never updated in the subsequent updates of the GW. The same applies to the “uid” field(s) of the devices.  {  "id": 8, /\*(If id field doesn’t exist, it will create a new gateway. Otherwise, it will update the existing GW with id value = 8)\*/  "serialNumber": "e30e9061-535f-4ec6-919a-9b42d5d335de",  "name": "Hello-World",  "devices": [  {  "uid": "95382123612114234070672127051637369039",  "vendor": "Apple",  "creationDate": "2021-08-10T05:31:45.296+00:00",  "online": true  }  ],  "ip": "18.18.19.88"  } |
| /gateways/create-gateway | Used to return all the currently existing gateways in the DB with the corresponding devices. |
| /gateways/8 | Used to get the details of the gateway with the “id” value = 8. |
| /peripheral-devices/retrieve-all | Used to get all the currently existing peripheral devices in the DB. |

It’s worth to mention that to delete a device from a gateway or add a device to a gateway, we only send the create-gateway request payload with the devices inside it. If the device has an Id and it’s existing in the DB, it will assign the device with the mentioned id to the gateway. Otherwise, it will create a new device to be controlled by the GW.