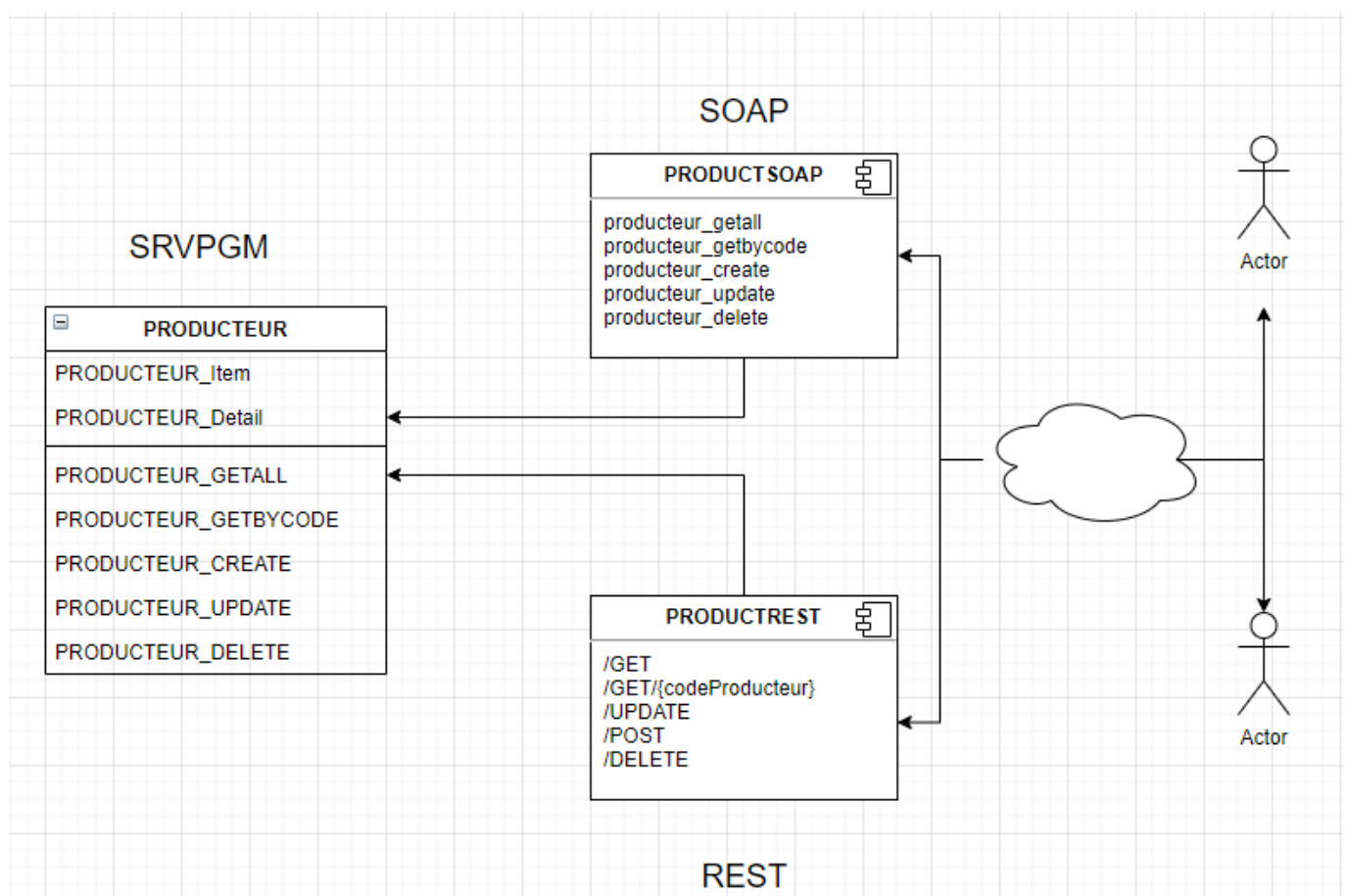


Objectifs

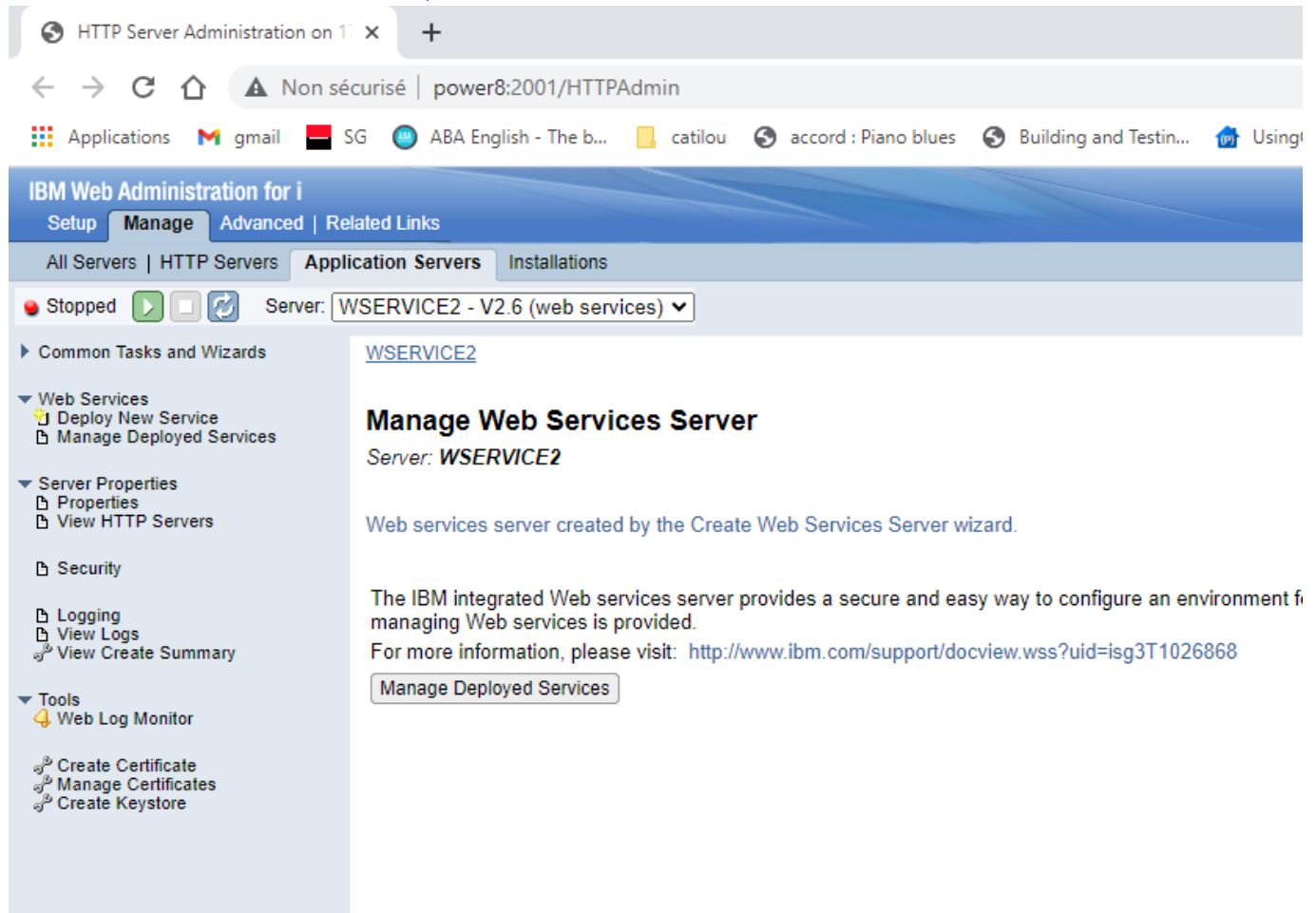
- Utiliser SOAPUI et l'interface Http Admin de l'IBMi pour :
 - Visiter l'implémentation d'un programme de service SOAP/REST.
 - Appeler les procédures Métier via le web service SOAP et REST.

Introduction

Le programme service STUDENTBIN/PRODUCTEUR est l'implémentation d'un modèle de type CRUD (Create, Read, Update, Delete) pour gérer l'entité métier PRODUCTEUR. Les procédures de ce programme de service sont exposées : - via le Web Service Rest PRODUCTREST. - via le Web Service SOAP PRODUCTSOAP.



dans le serveur WSERVICE2 sur l'[http admin](http://admin) du P8.



Utilisez un web service SOAP dans SOAPUI.

Objectifs.

- Récupérer l'adresse du fichier de description du WS SOAP (WSDL).
- Initier un projet dans SOAP avec l'url du wsdl.
- Appeler une méthode.

Accéder aux services de WSERVICE2.

1. Ouvrez le portail d'administration Web sur le P8

- [Http Server Administration](#)

La connexion se réalise avec votre profil Ibml.

2. Sélectionner le serveur WSERVICE2

onglet "Application servers" puis Combobox "server:"

HTTP Server Administration on P x +

Non sécurisé | http://10.3.1.108:2001/HTTPAdmin

Applications Gmail YouTube Maps AnyDesk VolubisIN NASx2 as400Na

IBM Web Administration for i

Setup **Manage** Advanced | Related Links

All Servers | HTTP Servers **Application Servers** Installations

Running [Stop] [Refresh] Server: WSERVICE2 - V2.6 (web services) ▼

- Common Tasks and Wizards
- Web Services
 - Deploy New Service
 - Manage Deployed Services
- Server Properties
 - Properties
 - View HTTP Servers
- Security
- Server Tracing
 - View Logs
 - View Create Summary
- Tools
 - Web Log Monitor
 - Create Certificate
 - Manage Certificates
 - Create Keystore

All servers
Admin1 - V8.5 (int app svr)
Admin2 - V8.5 (int app svr)
Admin3 - V8.5 (int app svr)
Admin4 - V8.5 (int app svr)
Admin5 - V8.5 (int app svr)
Demo - V2.6 (web services)
DEMOIWS - V2.6 (web services)
IBMARE - V8.5 (int app svr)
INTAPPSVR8 - V8.5 (int app svr)
LAN - V8.5 (int app svr)
VOLUBIS - V8.5 (int app svr)
WQLIB85 - V8.5 (int app svr)
WSERVICE2 - V2.6 (web services)

Server: "WSERVICE2"

- ConvertTemp
- PRODUCTEUR
- PRODUCTREST
- PRODUCTSOAP

Manage Deployed Services

Note: To update the status, click [Refresh]

3. Gérez les services via

The screenshot shows a web browser window with the address bar displaying "http://10.3.1.108:2001/HTTPAdmin". The browser's address bar also shows "Non sécurisé". The page title is "IBM Web Administration for i". The navigation tabs include "Setup", "Manage", "Advanced", and "Related Links". The "Manage" tab is selected, and the sub-tabs are "All Servers", "HTTP Servers", "Application Servers", and "Installations". The "Application Servers" sub-tab is selected, and the "Server" dropdown menu is set to "WSERVICE2 - V2.6 (web services)".

The left sidebar contains a tree view with the following items:

- Common Tasks and Wizards
 - Web Services
 - Deploy New Service
 - Manage Deployed Services
 - Server Properties
 - Properties
 - View HTTP Servers
 - Security
 - Server Tracing
 - View Logs
 - View Create Summary
 - Tools
 - Web Log Monitor
 - Create Certificate
 - Manage Certificates
 - Create Keystore

The main content area is titled "Manage Web Services Server" and "Server: WSERVICE2". It contains the following text:

Web services server created by the Create Web Services Se

The IBM integrated Web services server provides a secure a managing Web services is provided.
For more information, please visit: <http://www.ibm.com/supp>

A yellow circle highlights the "Manage Deployed Services" link in the left sidebar. The right sidebar shows a table of deployed services for "Server: 'WSERVICE2'":

Server: "WSERVICE2"
ConvertTemp
PRODUCTEUR
PRODUCTREST
PRODUCTSOAP

Below the table, a note states: "Note: To update the status, click Refresh".

IBM Web Administration for i

Setup **Manage** Advanced | Related Links

All Servers | HTTP Servers **Application Servers** Installations

Running Server: WSERVICE2 - V2.6 (web services)

Common Tasks and Wizards

- Web Services
 - Deploy New Service
 - Manage Deployed Services
- Server Properties
 - Properties
 - View HTTP Servers
- Security
- Server Tracing
 - View Logs
 - View Create Summary
- Tools
 - Web Log Monitor
 - Create Certificate
 - Manage Certificates
 - Create Keystore

WSERVICE2 > Manage Deployed Services

Manage Deployed Services

Data current as of 17 nov. 2021 11:47:17.

Deployed services: ?

	Service name	Status	Type	Startup type	Service definition
<input type="radio"/>	ConvertTemp	Running	SOAP	Automatic	View WSDL
<input type="radio"/>	PRODUCTEUR	Running	REST	Automatic	View Swagger
<input type="radio"/>	PRODUCTREST	Running	REST	Automatic	View Swagger
<input checked="" type="radio"/>	PRODUCTSOAP	Running	SOAP	Automatic	View WSDL

Deploy Stop Properties Uninstall Redeploy Refresh

4. Sauvegardez l'url wsdl du Web service PRODUCTSOAP.

IBM Web Administration for i

Setup **Manage** Advanced | Related Links

All Servers | HTTP Servers **Application Servers** Installations

Running Server: WSERVICE2 - V2.6 (web services)

Common Tasks and Wizards

- Web Services
 - Deploy New Service
 - Manage Deployed Services
- Server Properties
 - Properties
 - View HTTP Servers
- Security
- Server Tracing
 - View Logs
 - View Create Summary
- Tools
 - Web Log Monitor
 - Create Certificate
 - Manage Certificates
 - Create Keystore

WSERVICE2 > Manage Deployed Services

Manage Deployed Services

Data current as of 17 nov. 2021 14:24:06.

Deployed services: ?

	Service name	Status	Type	Startup type	Service definition
<input type="radio"/>	ConvertTemp	Running	SOAP	Automatic	View WSDL
<input type="radio"/>	PRODUCTEUR	Running	REST	Automatic	View Swagger
<input type="radio"/>	PRODUCTREST	Running	REST	Automatic	View Swagger
<input checked="" type="radio"/>	PRODUCTSOAP	Running	SOAP	Automatic	View WSDL

Deploy Stop Properties Uninstall Redeploy Refresh

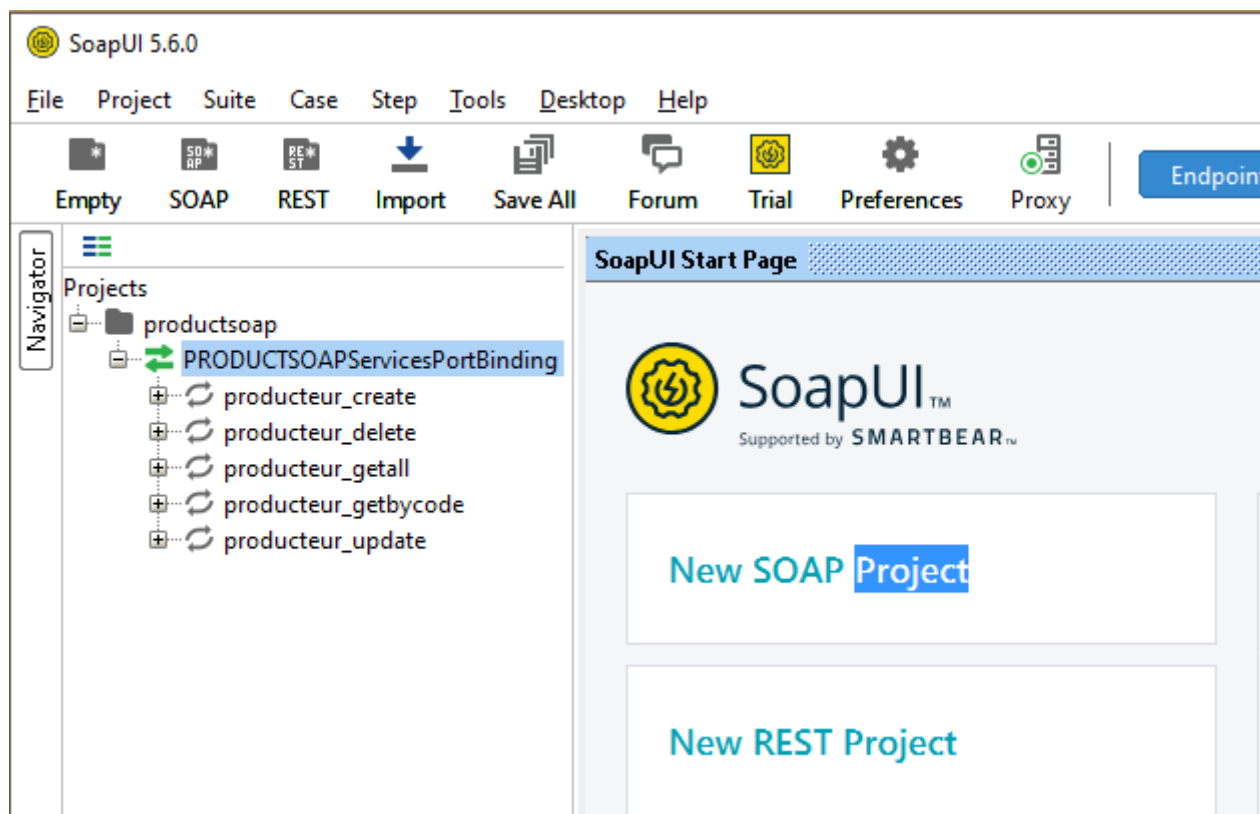
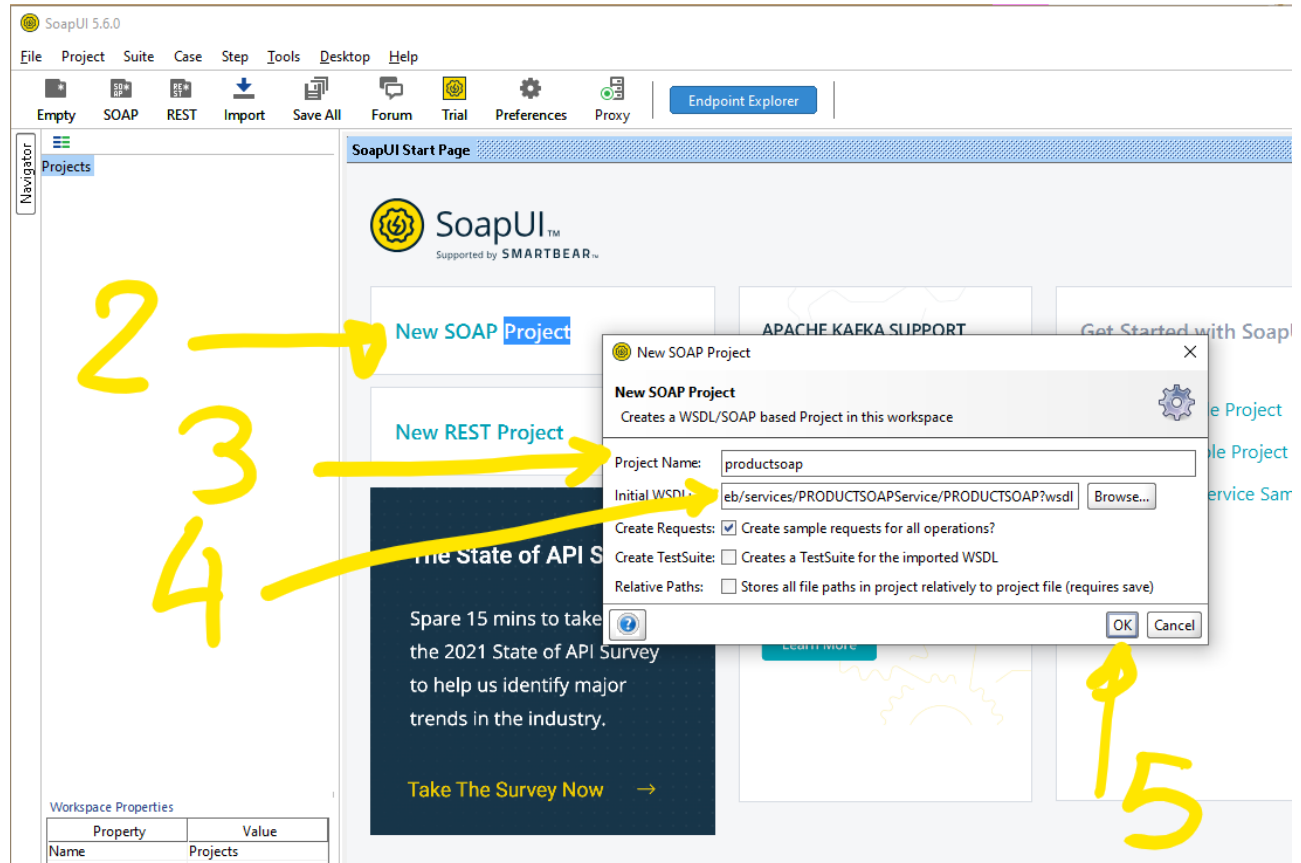
Ouvrir le lien dans un nouvel onglet
Ouvrir le lien dans une nouvelle fenêtre
Ouvrir le lien dans une fenêtre en navigation privée
Ouvrir le lien avec le compte
Enregistrer le lien sous...
Copier l'adresse du lien
Enregistrer dans Zotero
Inspecter

Si vous n'y arrivez pas, copiez celle-ci.

<http://power8:10014/web/services/PRODUCTSOAPSvc/PRODUCTSOAP?wsdl>

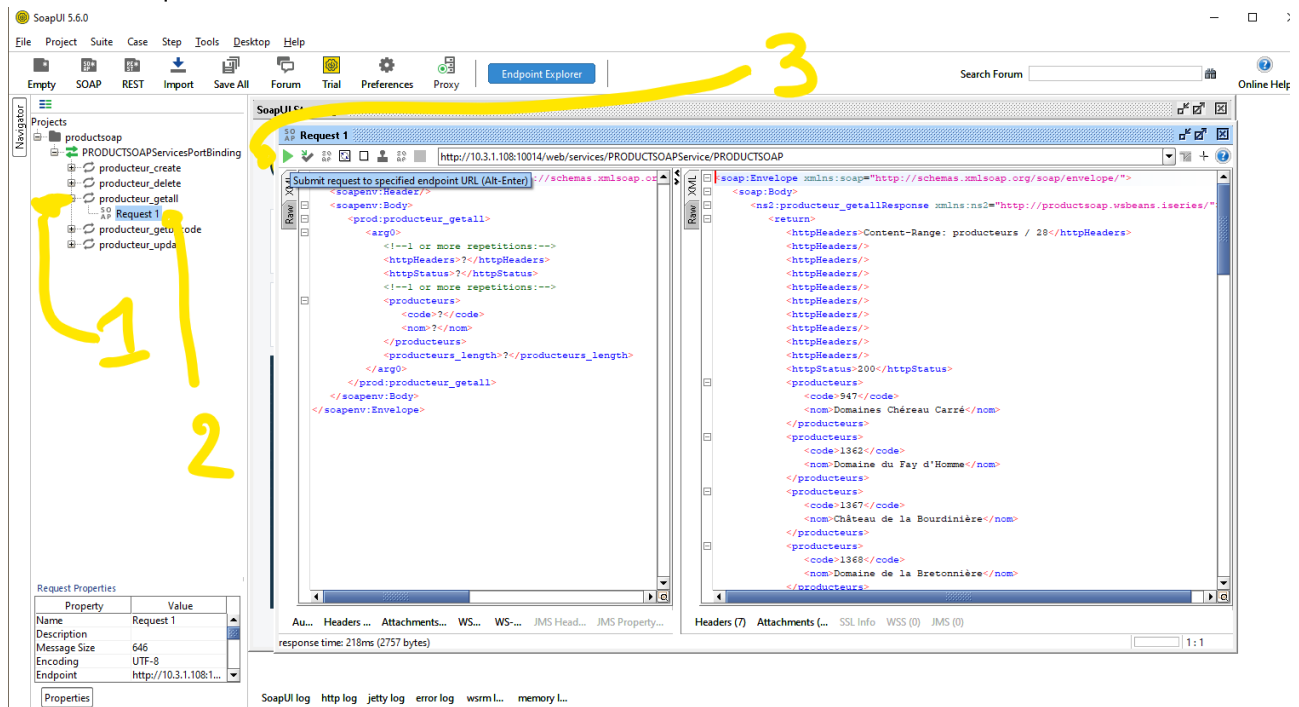
Initier PRODUCTSOAP dans SOAPUI.

1. Ouvrez SOAPUI
2. Créez un projet SOAP
3. Nommez le projet
4. Collez l'url du wdl (cf ci-dessus)
5. Validez par OK



Lister les producteurs

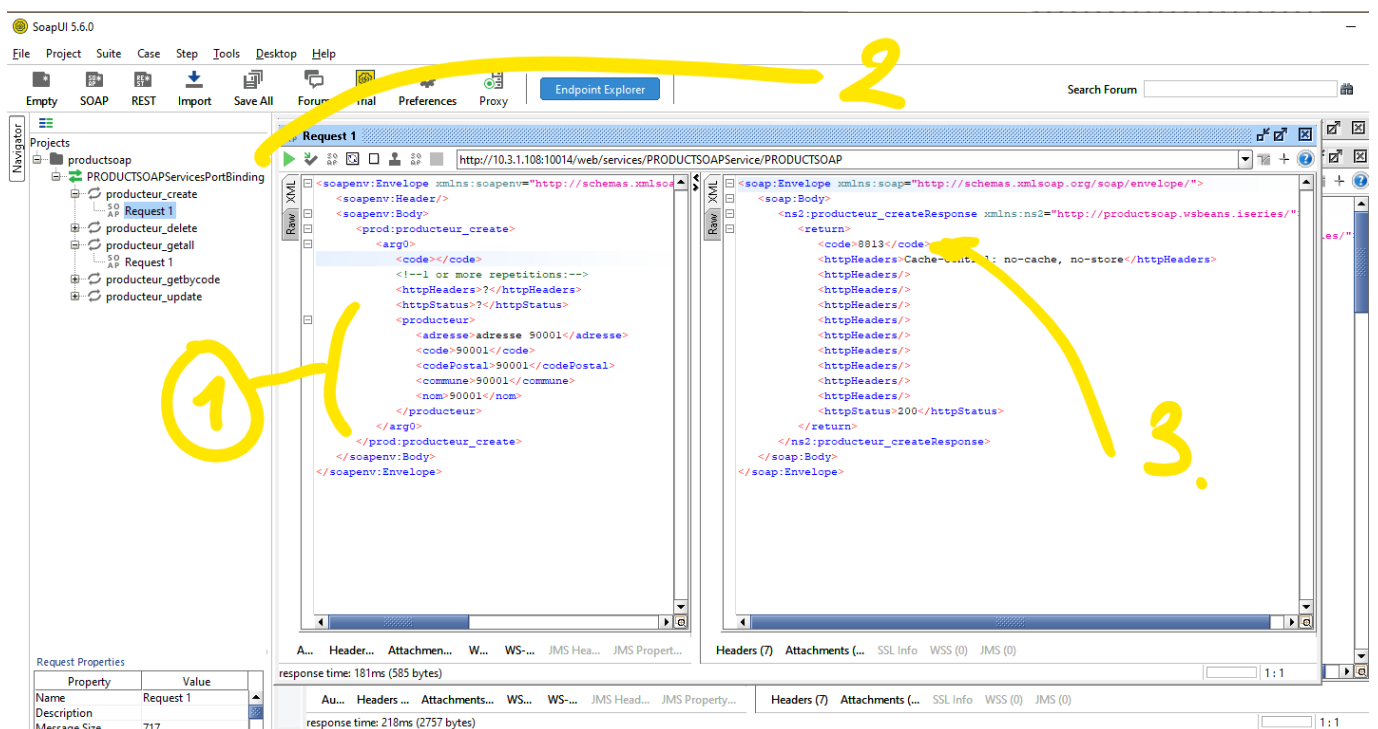
1. Sélectionnez la procédure "producteur_getall"
2. Double-cliquez sur request 1
3. Lancez la requête



Créer un producteur

lancer la requête de la procédure "producteur_create" idem ci-dessus

1. Remplissez les valeurs du nouveau producteur.
2. Lancez
3. Récupérez le code du nouveau producteur via (CTRL-C) ou notez le.

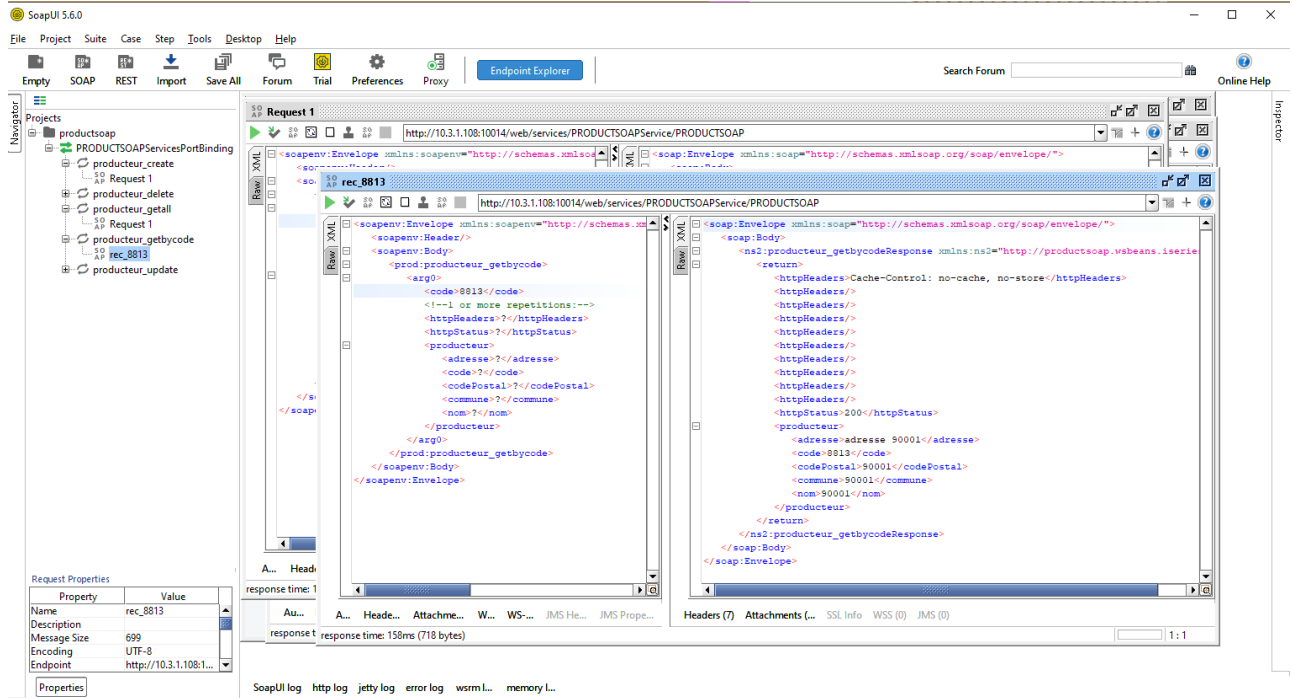


Afficher le détail du producteur

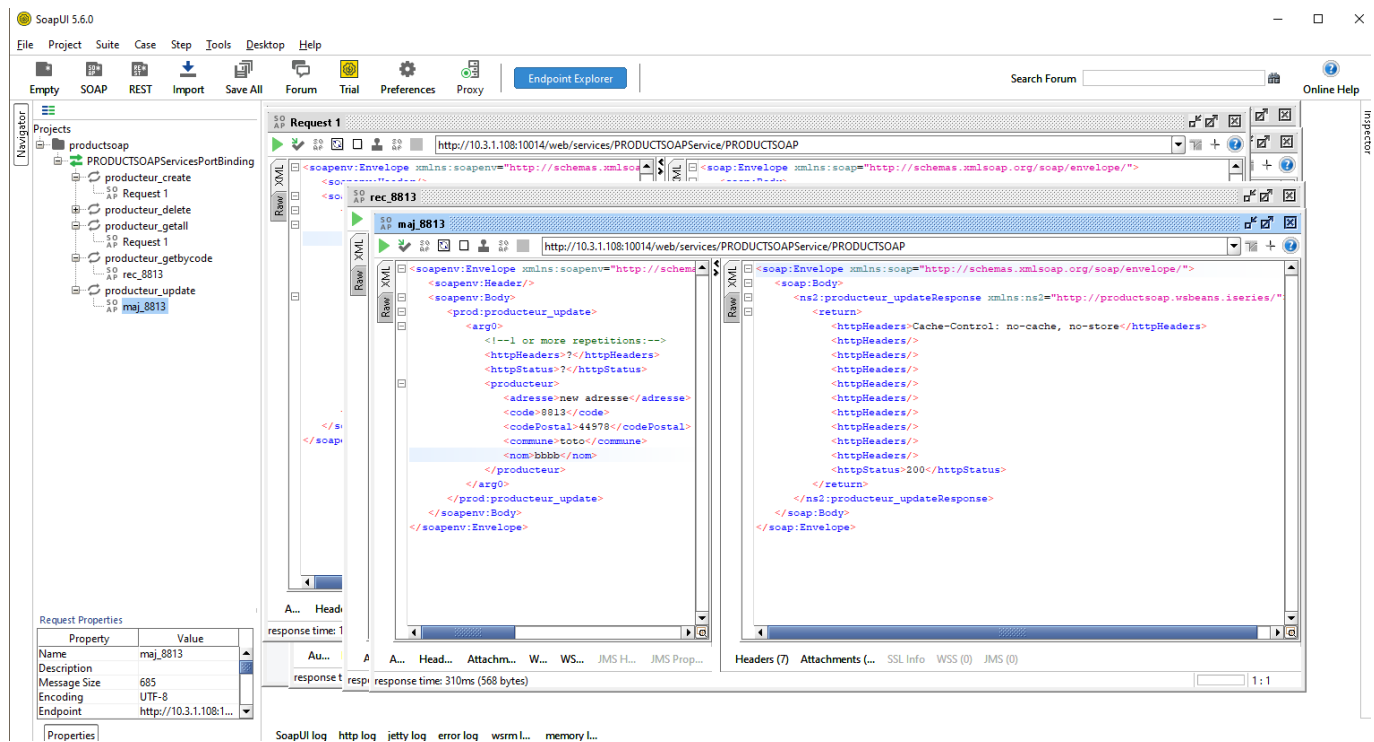
Faites idem pour l'affichage en :

- sélectionnant la procedure "producteur_getByCode"
- en renseignant le code précédemment sauvegardé dans la partie gauche de la requête

<code>....<code>



Modifier le nouveau producteur



? vérifier en affichant le détail

The screenshot shows the SoapUI 5.6.0 interface. The left sidebar displays a project tree with 'productsoap' and 'PRODUCTSOAPServicesPortBinding'. The main window shows a SOAP request and response for the 'rec_8813' operation. The request is a SOAP envelope with a header and a body containing a 'prod:producteur_getbycode' operation. The response is a SOAP envelope with a header and a body containing a 'ns2:producteur_getbycodeResponse' operation. The 'Request Properties' table is visible in the bottom left.

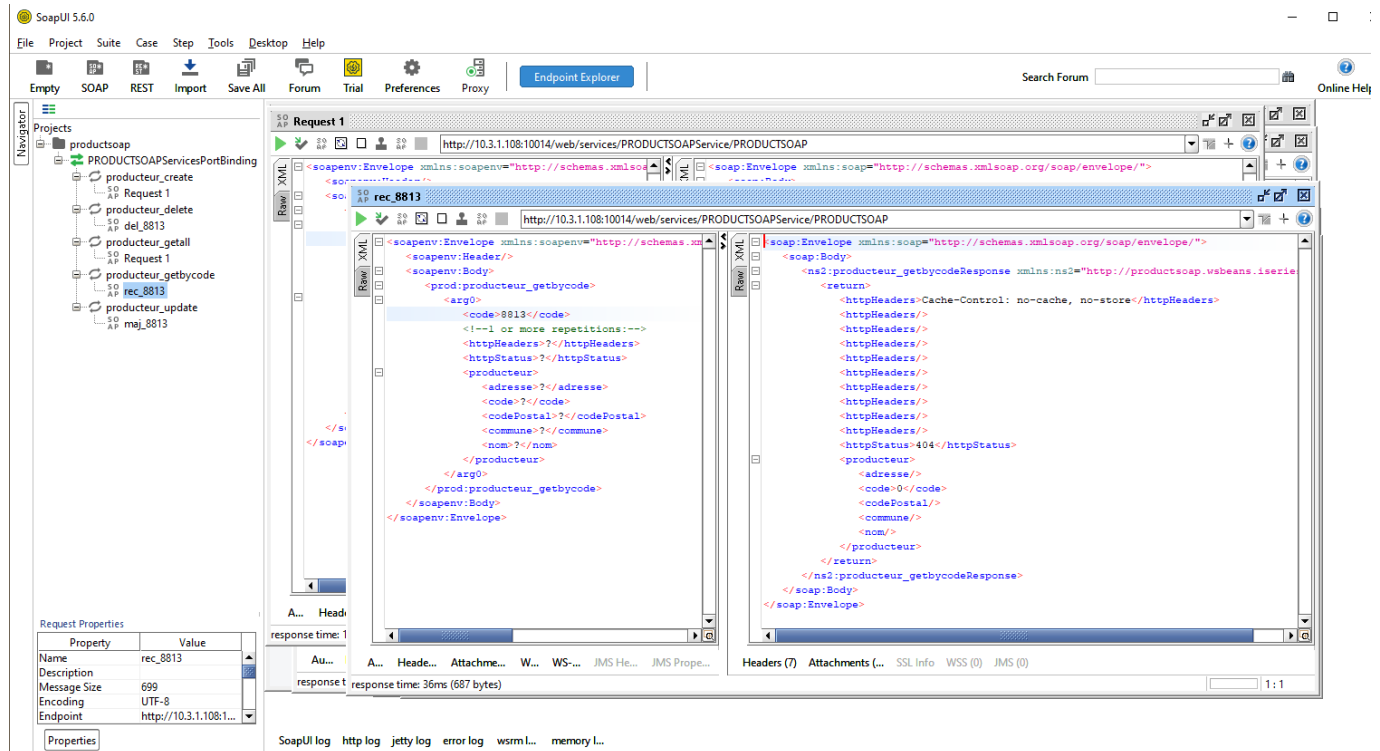
Property	Value
Name	rec_8813
Description	
Message Size	699
Encoding	UTF-8
Endpoint	http://10.3.1.108:1...

Supprimer le nouveau producteur

The screenshot shows the SoapUI 5.6.0 interface. The left sidebar displays a project tree with 'productsoap' and 'PRODUCTSOAPServicesPortBinding'. The main window shows a SOAP request and response for the 'del_8813' operation. The request is a SOAP envelope with a header and a body containing a 'prod:producteur_delete' operation. The response is a SOAP envelope with a header and a body containing a 'ns2:producteur_deleteResponse' operation. The 'Request Properties' table is visible in the bottom left.

Property	Value
Name	del_8813
Description	
Message Size	463
Encoding	UTF-8
Endpoint	http://10.3.1.108:1...

? vérifier en affichant le détail



Sauvegarder le projet

Utilisez un web service REST dans SOAPUI.

Objectifs.

- Sauvegarder le fichier SWAGGER (openAPI) de description du WS REST.
- Initier un projet dans SOAPUI avec le fichier swagger en json.
- Appeler une méthode.

Accéder aux services de WEBSERVICE2.

1. Ouvrez le portail d'administration Web sur le P8 [Http Server Administration](#).
La connexion se réalise avec votre profil lbml.

2. Sélectionner le serveur WEBSERVICE2

The screenshot shows the IBM Web Administration for i interface in a web browser. The browser address bar shows the URL `http://10.3.1.108:2001/HTTPAdmin`. The interface has a top navigation bar with tabs: Setup, Manage, Advanced, and Related Links. Below this, there are tabs for All Servers, HTTP Servers, Application Servers, and Installations. The 'Application Servers' tab is selected. On the left, there is a sidebar with a tree view containing categories like Common Tasks and Wizards, Web Services, Server Properties, Security, Server Tracing, and Tools. The 'Server' dropdown menu is open, showing a list of servers. The server 'WSERVICE2 - V2.6 (web services)' is selected and highlighted in blue. Below the dropdown, there is a section titled 'Server: "WSERVICE2"' which lists several services: ConvertTemp, PRODUCTEUR, PRODUCTREST, and PRODUCTSOAP. A note at the bottom states: 'Note: To update the status, click Refresh'.

HTTP Server Administration on P x +

Non sécurisé | `http://10.3.1.108:2001/HTTPAdmin`

Applications Gmail YouTube Maps AnyDesk VolubisIN NASx2 as400Na

IBM Web Administration for i

Setup Manage Advanced | Related Links

All Servers | HTTP Servers Application Servers Installations

Running Server: WSERVICE2 - V2.6 (web services) ▼

- Common Tasks and Wizards
- Web Services
 - Deploy New Service
 - Manage Deployed Services
- Server Properties
 - Properties
 - View HTTP Servers
- Security
- Server Tracing
 - View Logs
 - View Create Summary
- Tools
 - Web Log Monitor
 - Create Certificate
 - Manage Certificates
 - Create Keystore

All servers

- Admin1 - V8.5 (int app svr)
- Admin2 - V8.5 (int app svr)
- Admin3 - V8.5 (int app svr)
- Admin4 - V8.5 (int app svr)
- Admin5 - V8.5 (int app svr)
- Demo - V2.6 (web services)
- DEMOIWS - V2.6 (web services)
- IBMARE - V8.5 (int app svr)
- INTAPPSVR8 - V8.5 (int app svr)
- LAN - V8.5 (int app svr)
- VOLUBIS - V8.5 (int app svr)
- WQLIB85 - V8.5 (int app svr)
- WSERVICE2 - V2.6 (web services)

Server: "WSERVICE2"

- ConvertTemp
- PRODUCTEUR
- PRODUCTREST
- PRODUCTSOAP

Note: To update the status, click Refresh

3. Gérez les services via

The screenshot shows a web browser window with the address bar displaying "http://10.3.1.108:2001/HTTPAdmin". The page title is "IBM Web Administration for i". The navigation tabs include "Setup", "Manage", "Advanced", and "Related Links". Under the "Manage" tab, there are sub-tabs for "All Servers", "HTTP Servers", "Application Servers", and "Installations". The "Application Servers" tab is selected, and the "Server" dropdown menu is set to "WSERVICE2 - V2.6 (web services)".

The left sidebar contains a tree view with the following items:

- Common Tasks and Wizards
 - Web Services
 - Deploy New Service
 - Manage Deployed Services
 - Server Properties
 - Properties
 - View HTTP Servers
 - Security
 - Server Tracing
 - View Logs
 - View Create Summary
 - Tools
 - Web Log Monitor
 - Create Certificate
 - Manage Certificates
 - Create Keystore

The main content area is titled "Manage Web Services Server" and shows the server "WSERVICE2". It includes a description: "Web services server created by the Create Web Services Se". Below this, it states: "The IBM integrated Web services server provides a secure a managing Web services is provided. For more information, please visit: <http://www.ibm.com/supp>".

A yellow circle highlights the "Manage Deployed Services" link in the left sidebar. To the right of this link, a table lists the deployed services for "WSERVICE2":

Server: "WSERVICE2"
ConvertTemp
PRODUCTEUR
PRODUCTREST
PRODUCTSOAP

At the bottom, a note states: "Note: To update the status, click Refresh".

HTTP Server Administration on P... x +

Non sécurisé | http://10.3.1.108:2001/HTTPAdmin

Applications Gmail YouTube Maps AnyDesk VolubisIN NASx2 as400Nav4I Adobe

IBM Web Administration for i

Setup Manage Advanced | Related Links

All Servers | HTTP Servers Application Servers Installations

Running Server: WSERVICE2 - V2.6 (web services)

Common Tasks and Wizards

Web Services

- Deploy New Service
- Manage Deployed Services

Server Properties

- Properties
- View HTTP Servers

Security

Server Tracing

- View Logs
- View Create Summary

Tools

- Web Log Monitor
- Create Certificate
- Manage Certificates
- Create Keystore

WSERVICE2 > Manage Deployed Services

Manage Deployed Services

Data current as of 17 nov. 2021 11:47:17.

Deployed services: ?

	Service name	Status	Type	Startup type	Service definition
<input type="radio"/>	ConvertTemp	Running	SOAP	Automatic	View WSDL
<input type="radio"/>	PRODUCTEUR	Running	REST	Automatic	View Swagger
<input type="radio"/>	PRODUCTREST	Running	REST	Automatic	View Swagger
<input checked="" type="radio"/>	PRODUCTSOAP	Running	SOAP	Automatic	View WSDL

Deploy Stop Properties Uninstall Redeploy Refresh

4. Sauvegardez le fichier json "swagger" du Web service PRODUCTREST.

HTTP Server Administration on P... x +

Non sécurisé | http://10.3.1.108:2001/HTTPAdmin

Applications Gmail YouTube Maps AnyDesk VolubisIN NASx2 as400Nav4I Adobe drawio Keepass Wekan Trello

IBM Web Administration for i

Setup Manage Advanced | Related Links

All Servers | HTTP Servers Application Servers Installations

Running Server: WSERVICE2 - V2.6 (web services)

Common Tasks and Wizards

Web Services

- Deploy New Service
- Manage Deployed Services

Server Properties

- Properties
- View HTTP Servers

Security

Server Tracing

- View Logs
- View Create Summary

Tools

- Web Log Monitor
- Create Certificate
- Manage Certificates
- Create Keystore

WSERVICE2 > Manage Deployed Services

Manage Deployed Services

Data current as of 17 nov. 2021 16:56:48.

Deployed services: ?

	Service name	Status	Type	Startup type	Service definition
<input type="radio"/>	ConvertTemp	Running	SOAP	Automatic	View WSDL
<input type="radio"/>	PRODUCTEUR	Running	REST	Automatic	View Swagger
<input checked="" type="radio"/>	PRODUCTREST	Running	REST	Automatic	View Swagger
<input type="radio"/>	PRODUCTSOAP	Running	SOAP	Automatic	View WSDL

Deploy Stop Properties Uninstall Redeploy Refresh

Ouvrir le lien dans un nouvel onglet
Ouvrir le lien dans une nouvelle fenêtre
Ouvrir le lien dans une fenêtre en navigation privée
Ouvrir le lien avec le compte
Enregistrer le lien sous...
Copier l'adresse du lien
Enregistrer dans Zotero
Inspecter

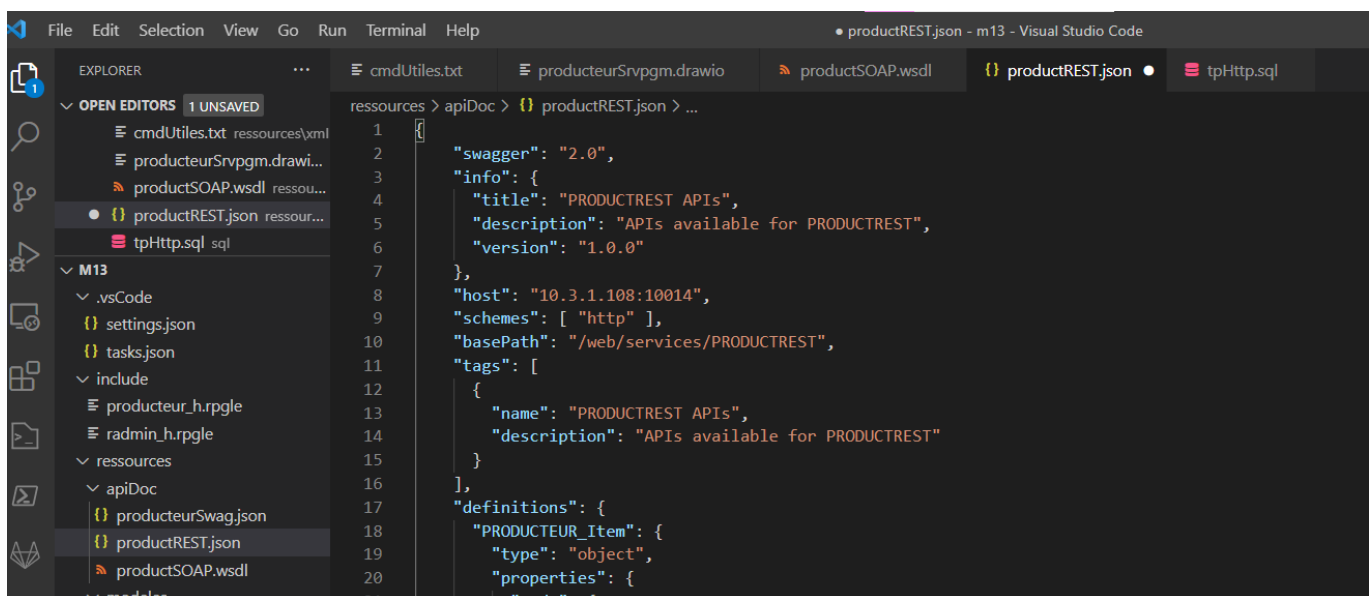


```

{
  "swagger": "2.0",
  "info": {
    "title": "PRODUCTREST APIs",
    "description": "APIs available for PRODUCTREST",
    "version": "1.0.0"
  },
  "host": "10.3.1.108:10014",
  "schemes": [ "http" ],
  "basePath": "/web/services/PRODUCTREST",
  "tags": [
    {
      "name": "PRODUCTREST APIs",
      "description": "APIs available for PRODUCTREST"
    }
  ],
  "definitions": {
    "PRODUCTEUR_Item": {
      "type": "object",
      "properties": {
        "code": {
          "type": "integer",
          "format": "int32"
        },
        "nom": {
          "type": "string",
          "maxLength": 50
        }
      }
    }
  }
}

```

CTRL-A puis CTRL-C CTRL-V dans un éditeur de texte (ici visual studio code)



```

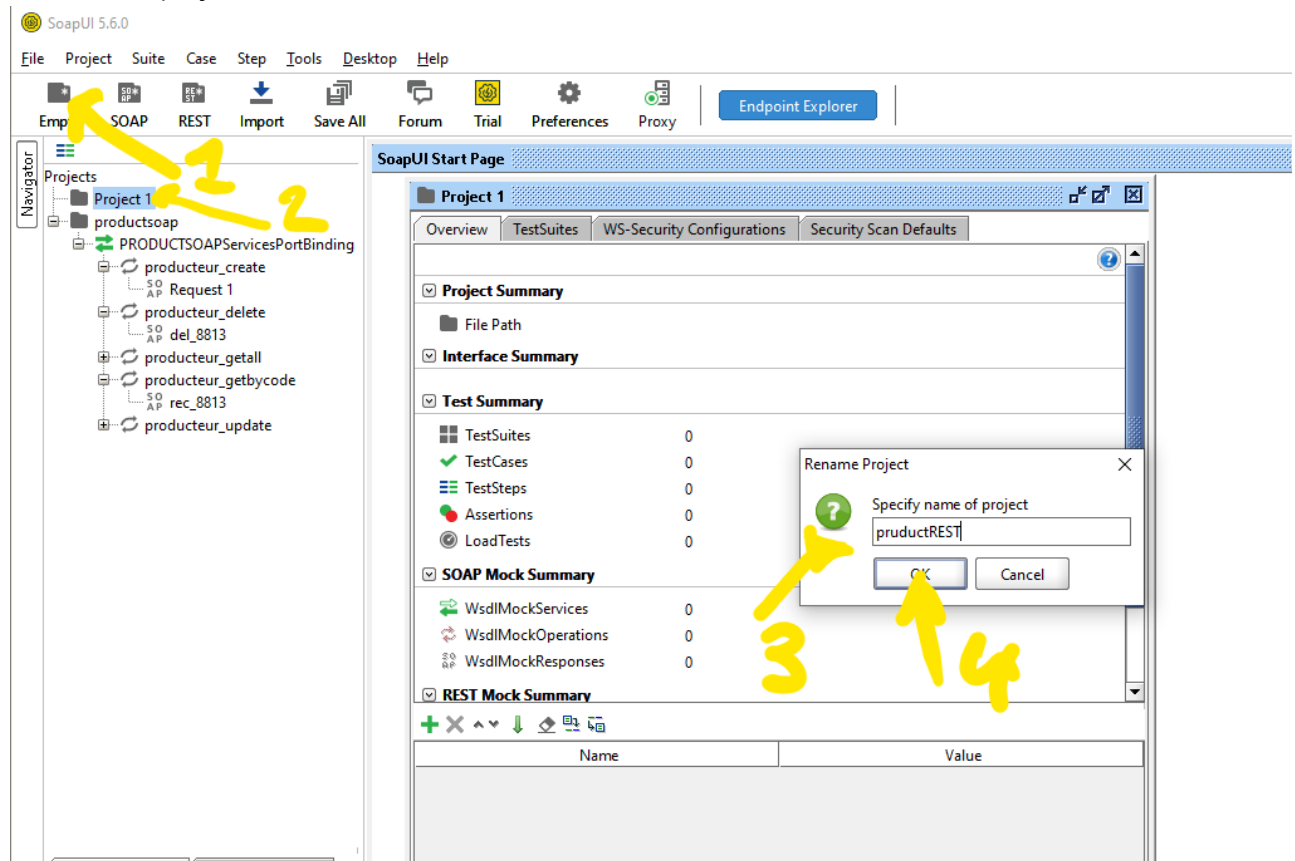
1 {
2   "swagger": "2.0",
3   "info": {
4     "title": "PRODUCTREST APIs",
5     "description": "APIs available for PRODUCTREST",
6     "version": "1.0.0"
7   },
8   "host": "10.3.1.108:10014",
9   "schemes": [ "http" ],
10  "basePath": "/web/services/PRODUCTREST",
11  "tags": [
12    {
13      "name": "PRODUCTREST APIs",
14      "description": "APIs available for PRODUCTREST"
15    }
16  ],
17  "definitions": {
18    "PRODUCTEUR_Item": {
19      "type": "object",
20      "properties": {
21        "code": {

```

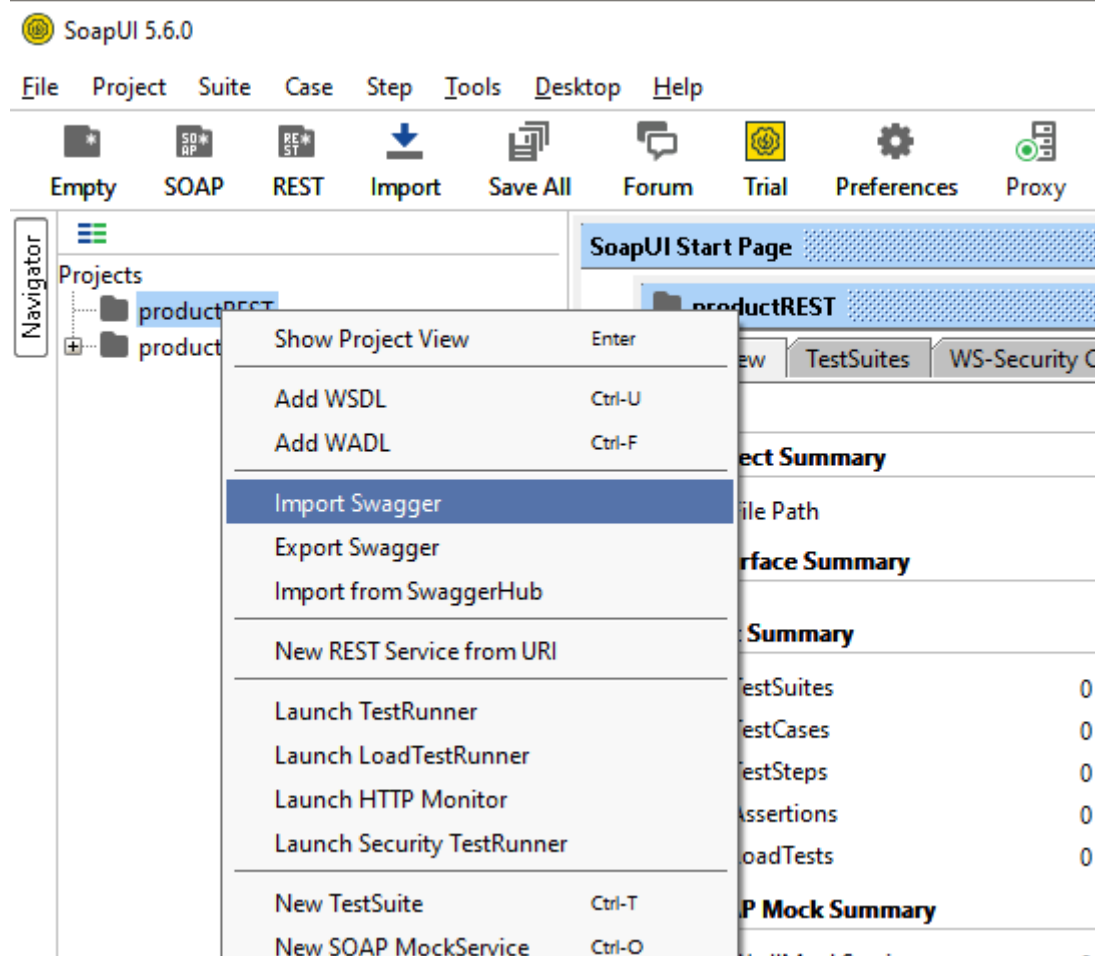
Initier PRODUCTREST dans SOAPUI.

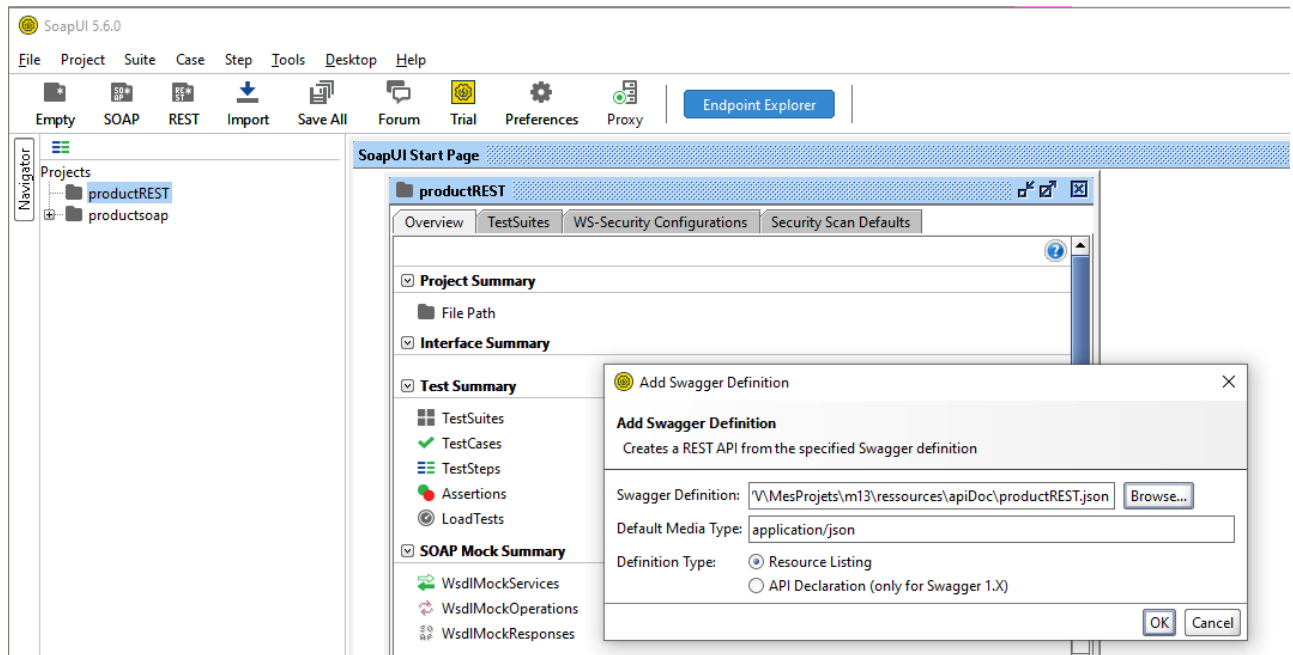
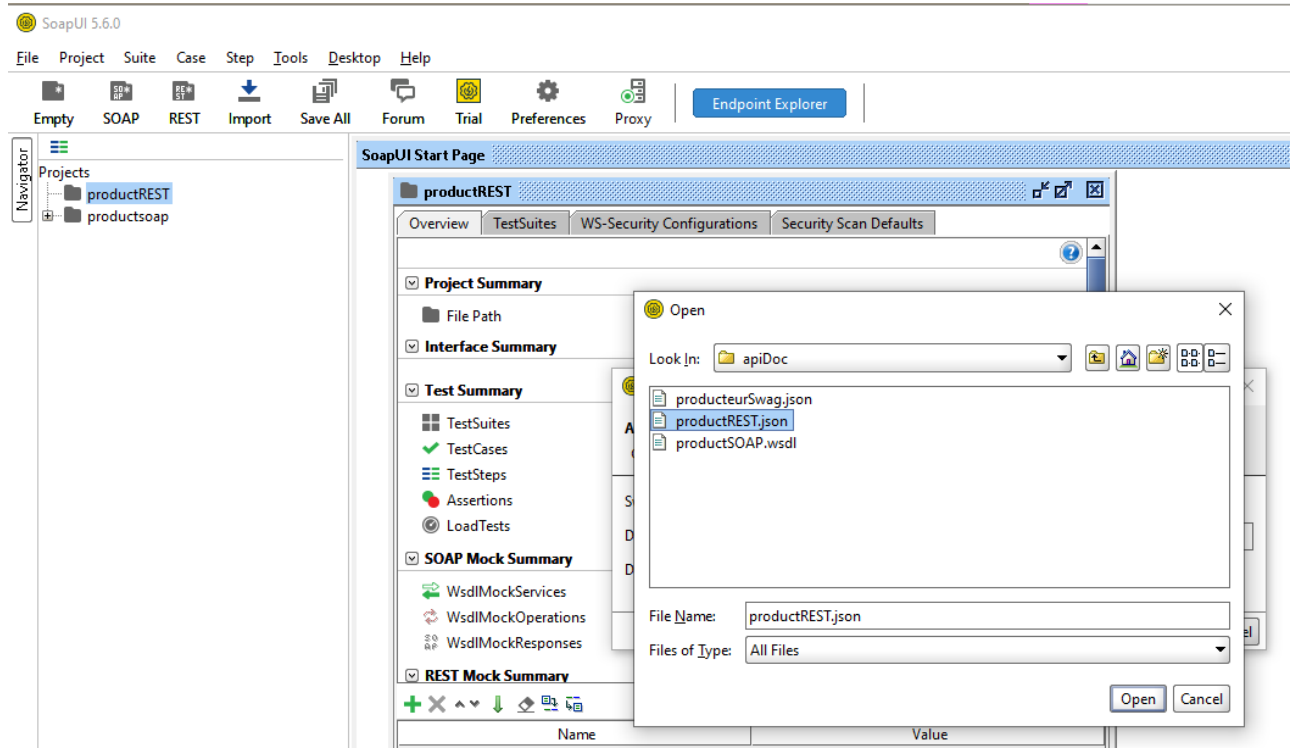
1. Ouvrez SOAPUI
2. Créez un projet vide "empty"

3. Nommez le projet

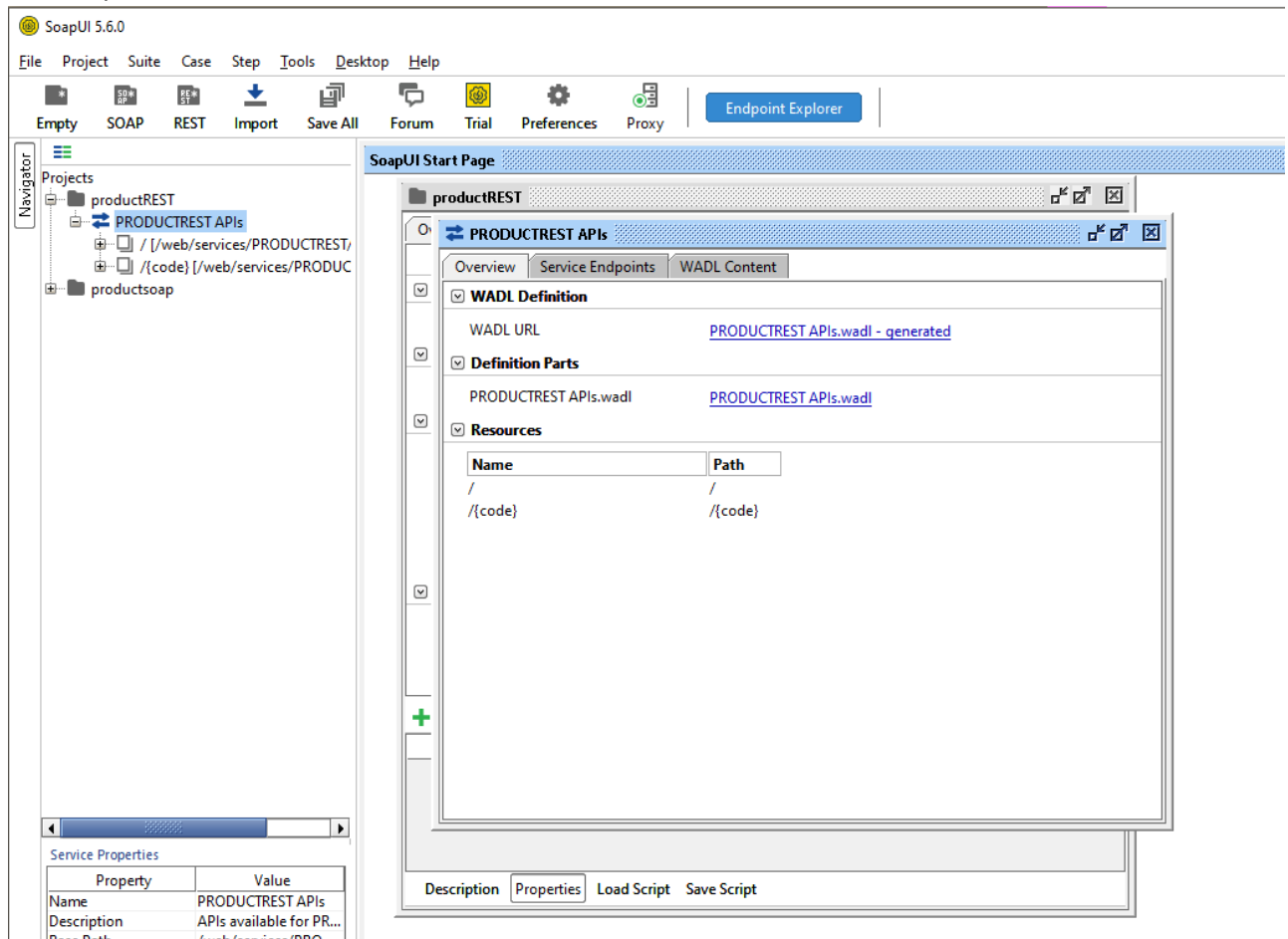


4. Importez le swagger





5. Validez par OK



⚠ problème possible avec la dernier ligne ==> ajouter un blanc en fin de ligne après la dernière parenthèse.

```

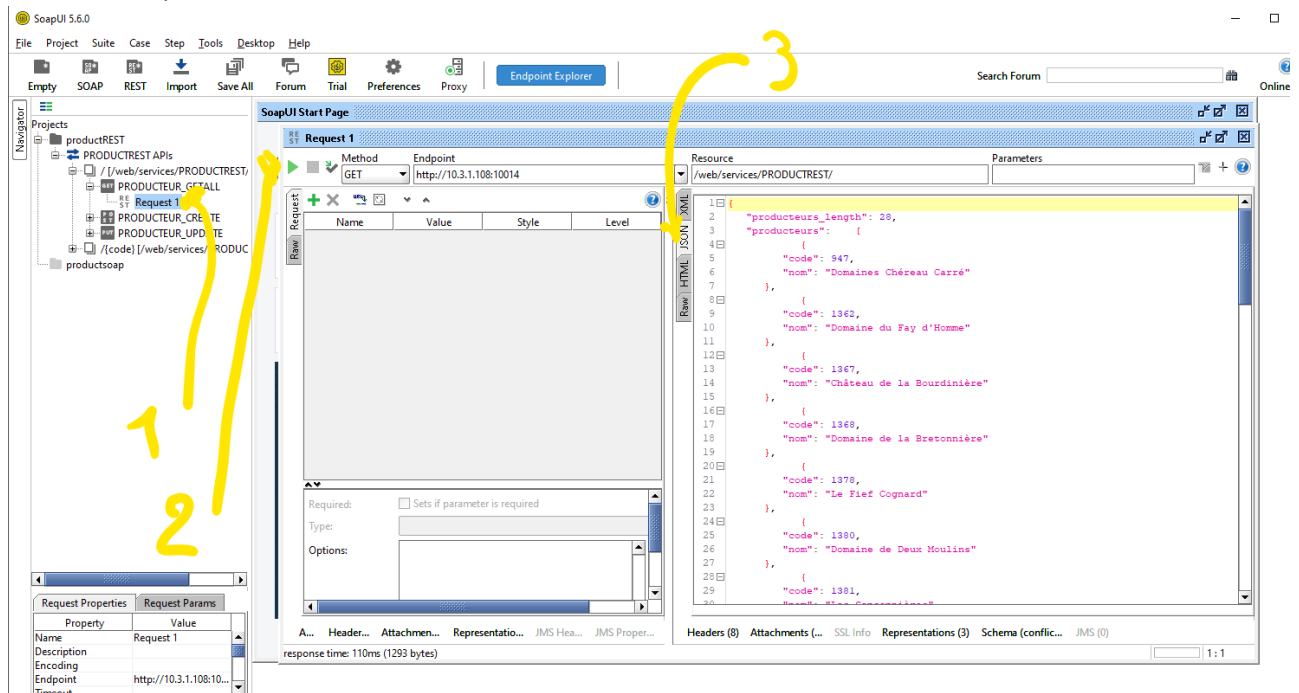
229         "$ref": "#/definitions/PRODUCTEUR_Detail"
230     }
231 }
232 ],
233 "responses": {
234     "200": {
235         "description": "Successful operation"
236     },
237     "500": {
238         "description": "Unexpected exception"
239     }
240 }
241 }
242 }
243 }
244 }

```

Lister les producteurs

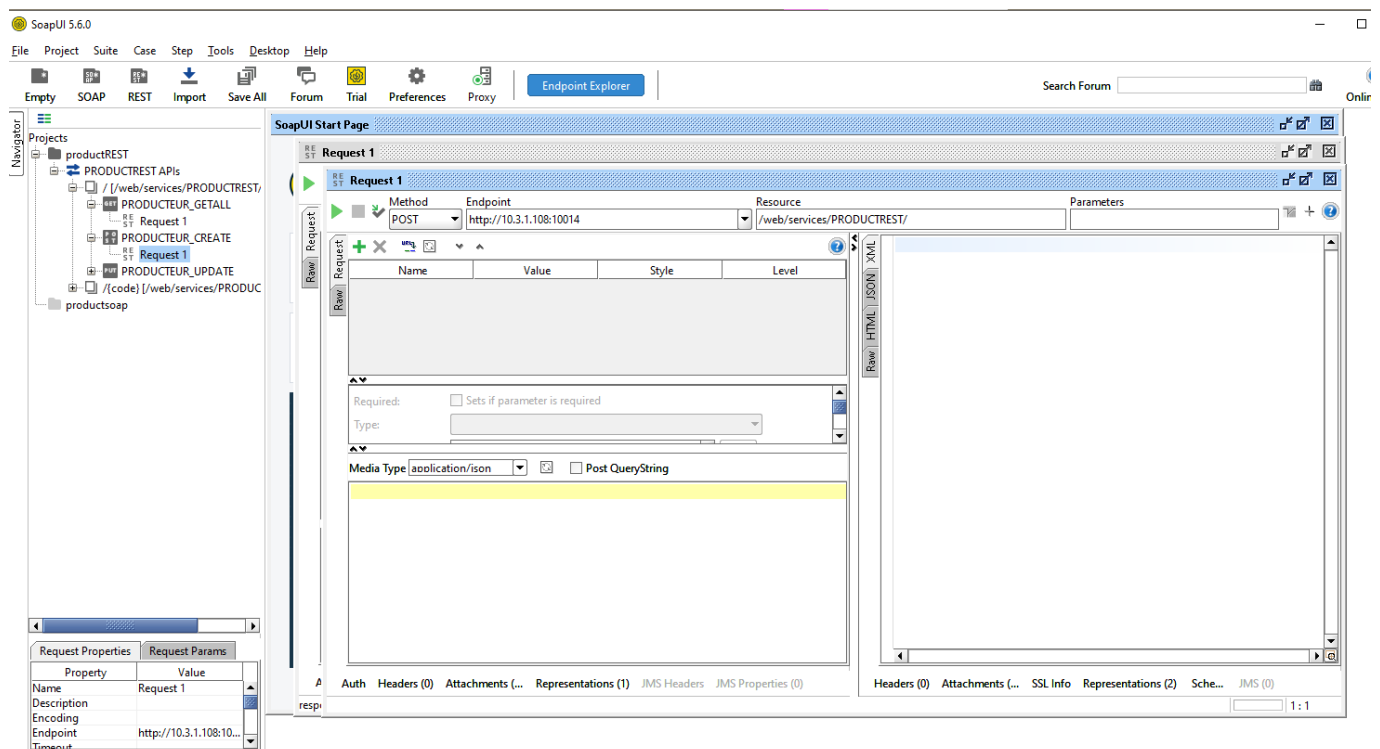
1. Sélectionnez la procédure "producteur_getall"

- Double-cliquez sur request 1
- Lancez la requête



Créer un producteur

Requêtez la procédure "producteur_create" idem ci-dessus



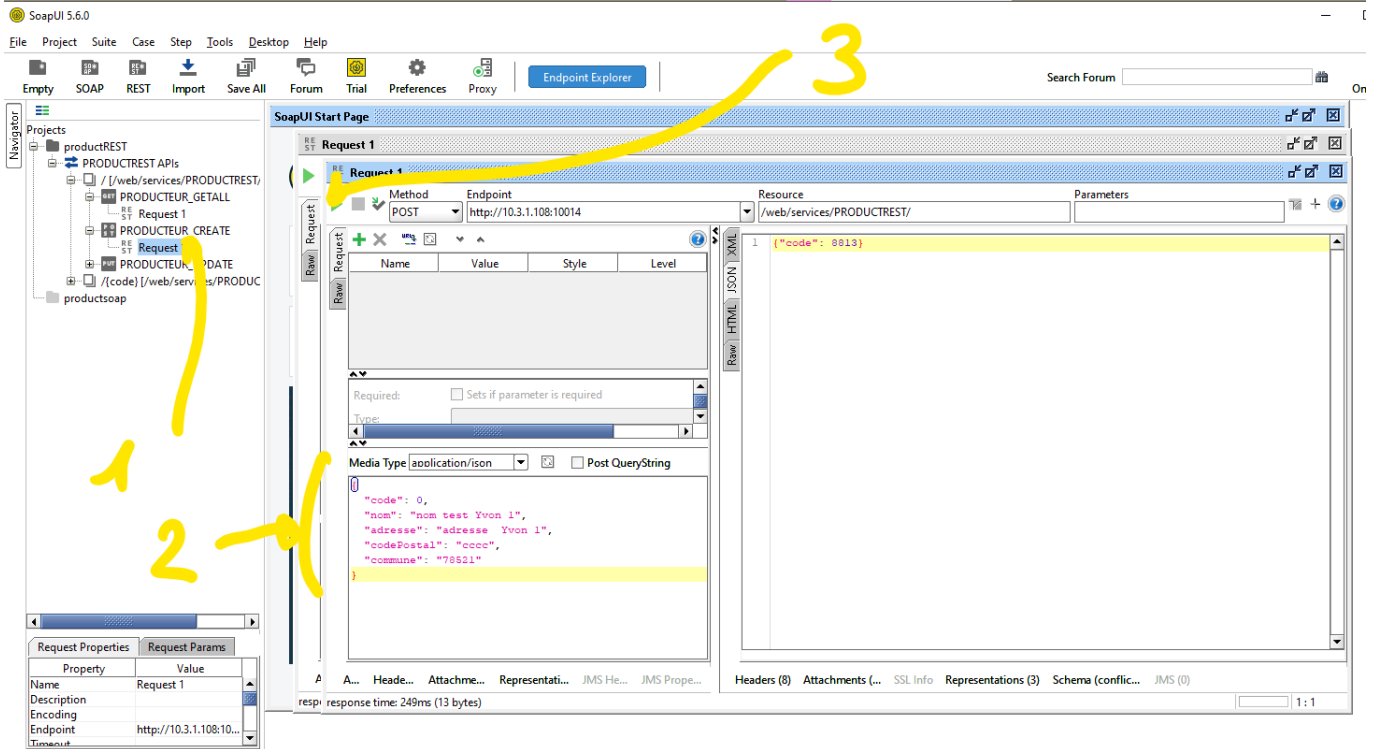
- Remplissez les valeurs du nouveau producteur.

```
{
  "code": 0,
  "nom": "nom test Yvon 1",
  "adresse": "adresse Yvon 1",
```

```

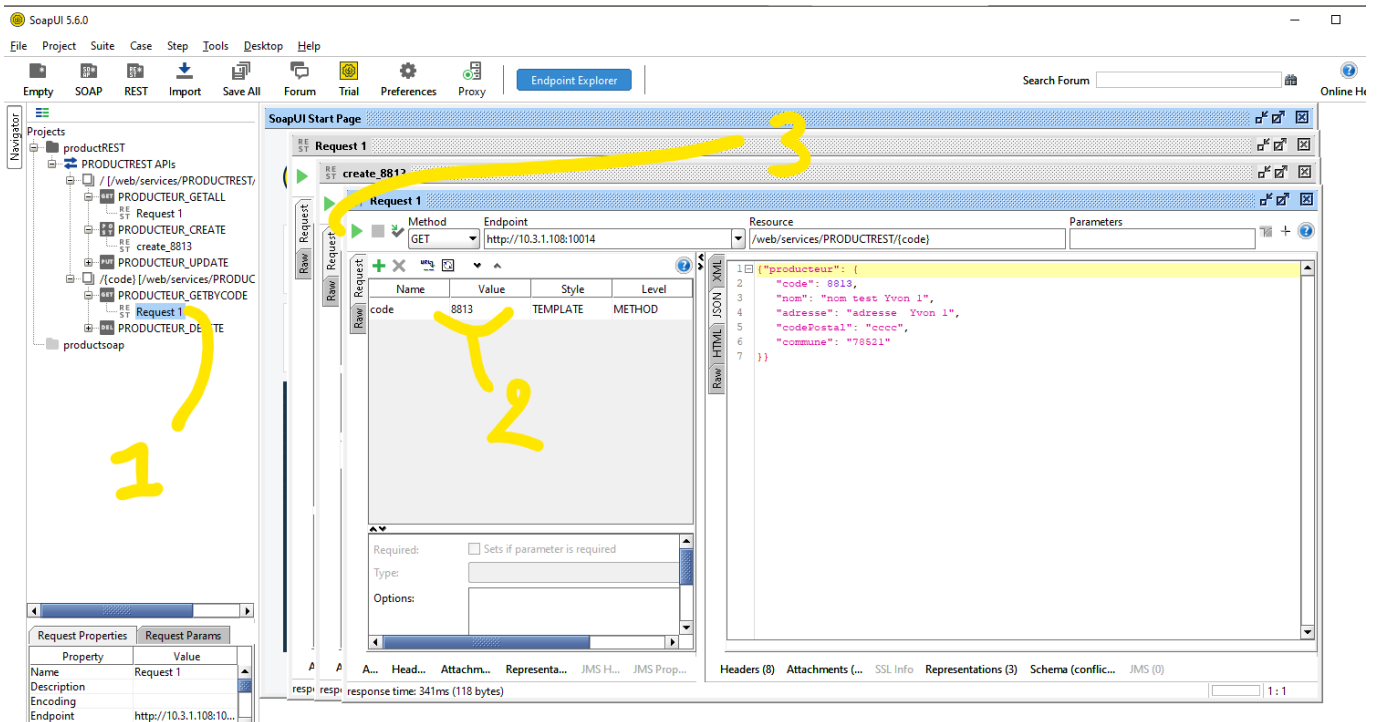
"codePostal": "cccc",
"commune": "78521"
}

```



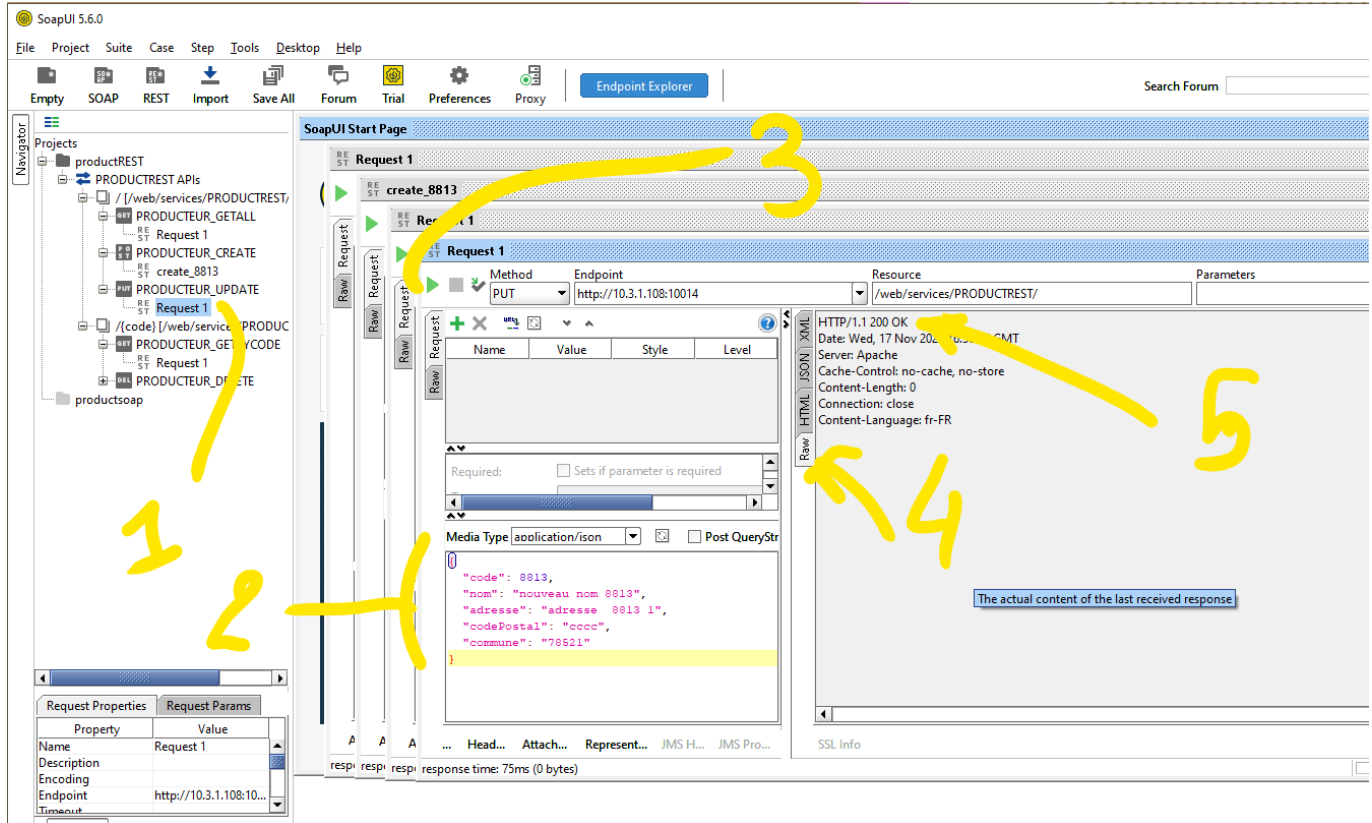
1. Lancez
2. Récupérez le code du nouveau producteur.

Afficher le détail du producteur

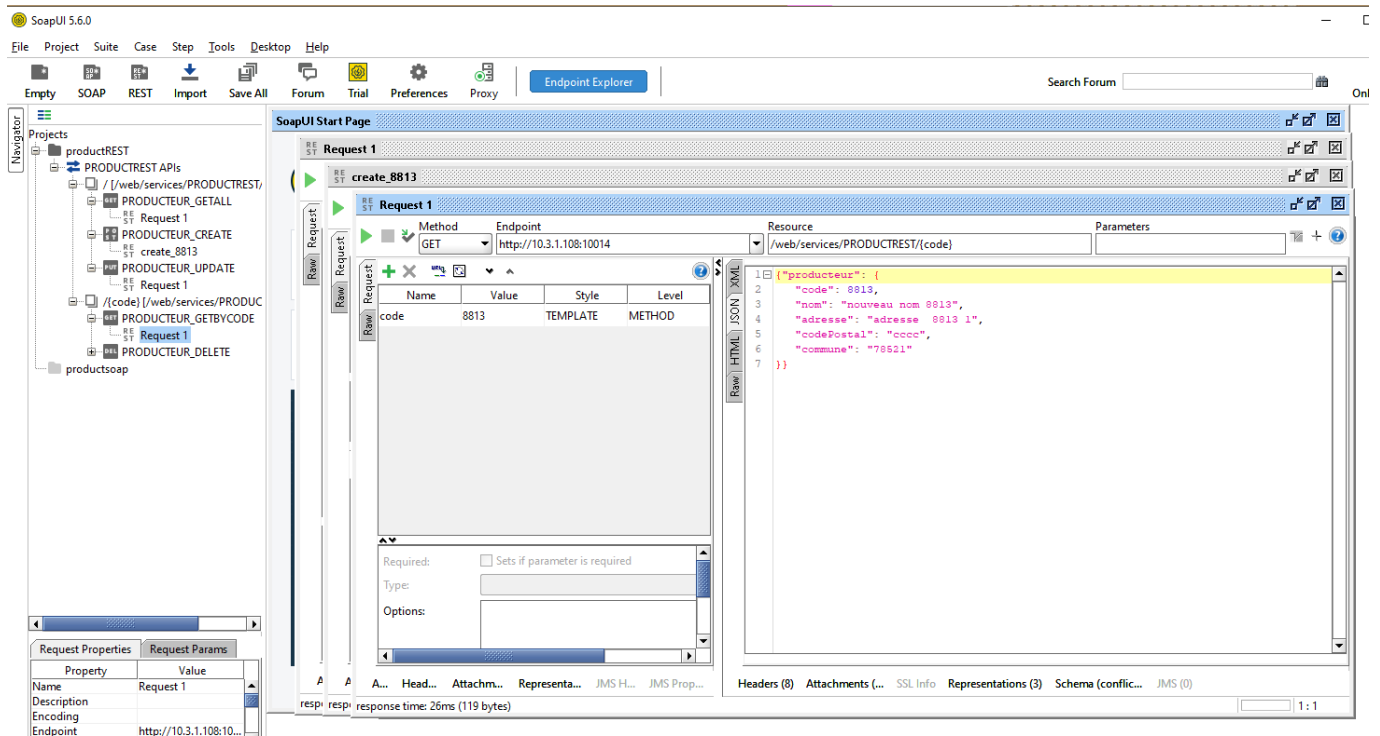


Modifier le nouveau producteur

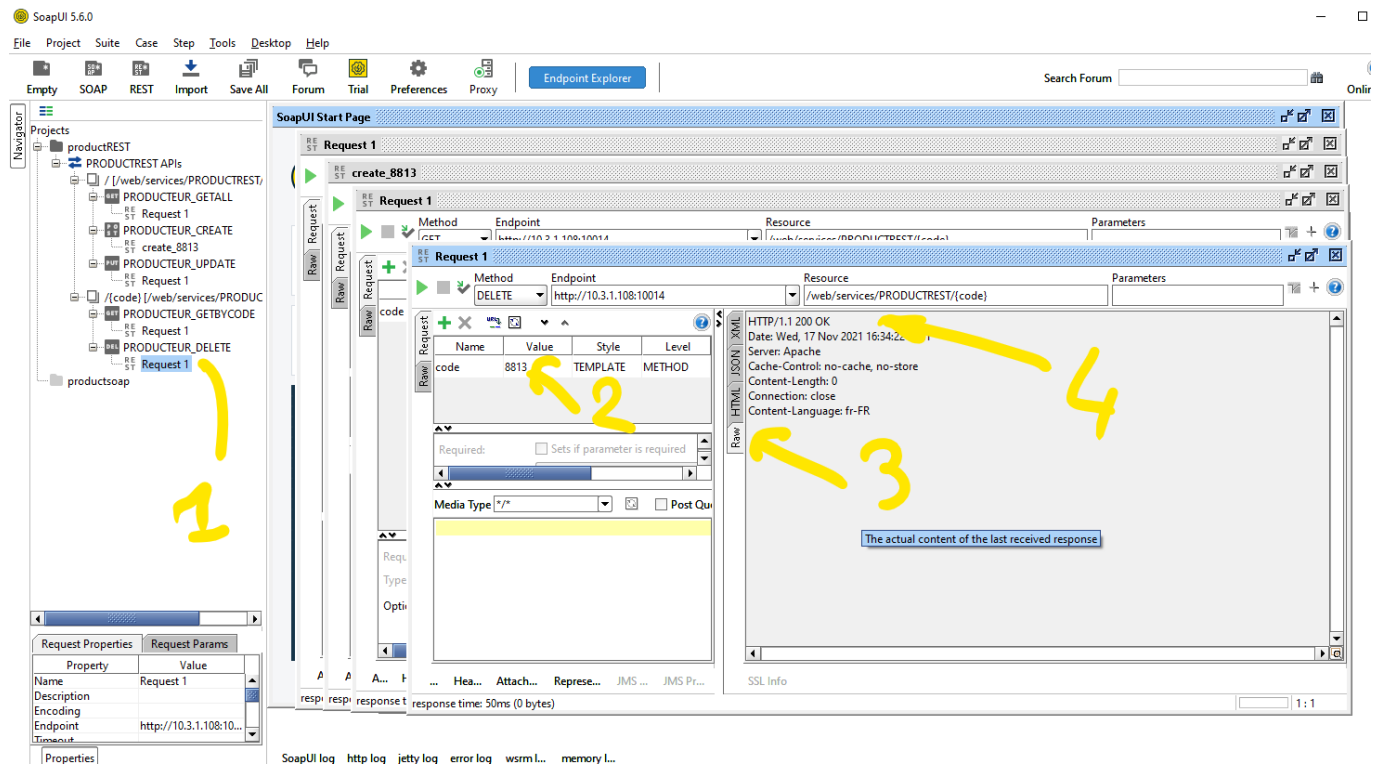
```
{
  "code": 8813,
  "nom": "nouveau nom 8813",
  "adresse": "adresse 8813 1",
  "codePostal": "cccc",
  "commune": "78521"
}
```



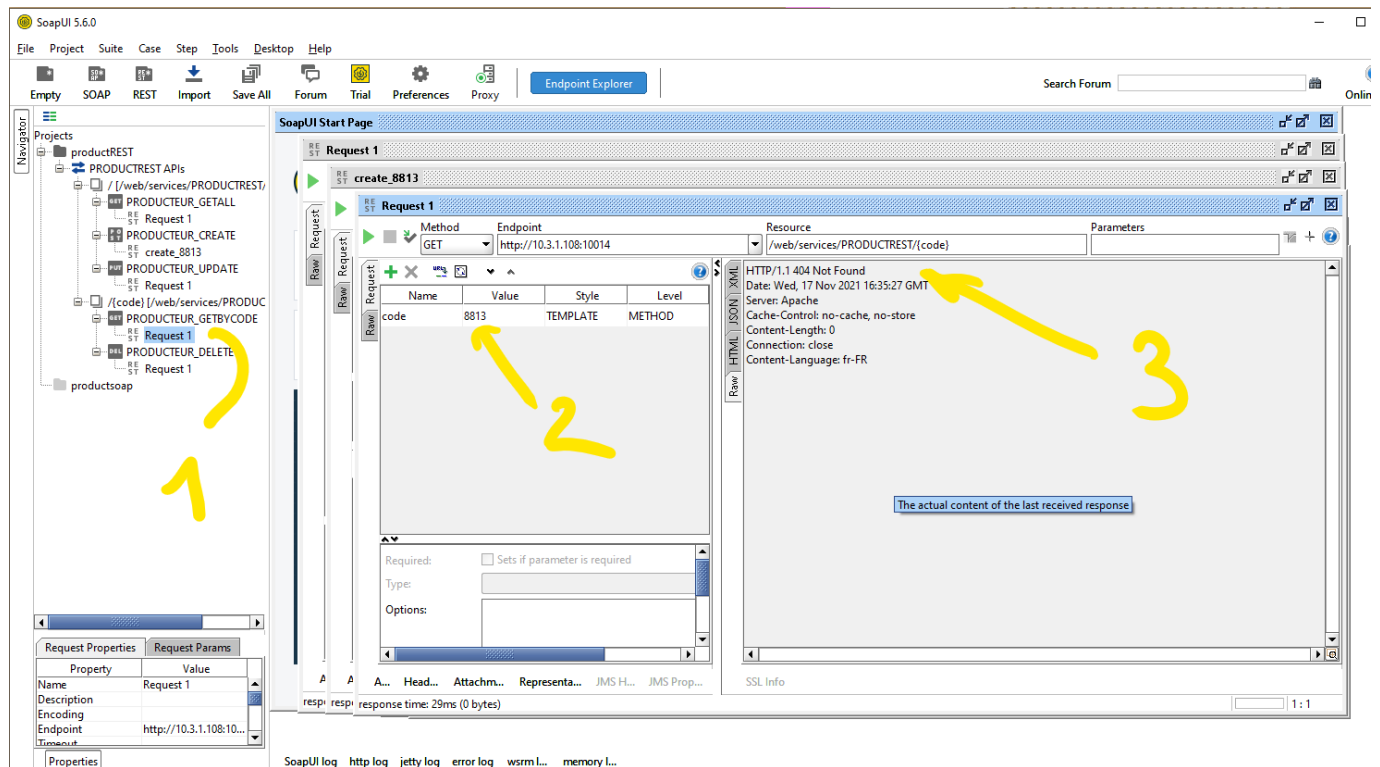
? vérifiez en affichant le détail



Supprimer le nouveau producteur



? vérifier en affichant le détail



Sauvegarder le projet

Utilisez un web service REST dans Insomnia.

Objectifs.

- Sauvegarder le fichier SWAGGER (openAPI) de description du WS REST.

- Initier un projet dans SOAP avec l'url du wsdl dans insomnia.
- Appeler une méthode.

Installer insomnia

1. Téléchargez Insomnia sur le site de l'outil. [Build APIs that work.](#) ou éventuellement lancer le fichier C:\Users\Public\Insomnia.Core-2022.3.0.exe.

Accéder aux services de WEBSERVICE2.

1. Ouvrez le portail d'administration Web sur le P8 [Http Server Administration](#).
La connexion se réalise avec votre profil Ibml.

2. Sélectionner le serveur WEBSERVICE2

The screenshot shows the IBM Web Administration for i interface. The browser address bar indicates the URL <http://10.3.1.108:2001/HTTPAdmin>. The interface has tabs for Setup, Manage, Advanced, and Related Links. Under the Manage tab, there are sub-tabs for All Servers, HTTP Servers, Application Servers, and Installations. The 'Server' dropdown menu is open, showing a list of servers including Admin1 through Admin5 (V8.5 int app svr), Demo (V2.6 web services), DEMOIWS (V2.6 web services), IBMARE (V8.5 int app svr), INTAPPSVR8 (V8.5 int app svr), LAN (V8.5 int app svr), VOLUBIS (V8.5 int app svr), and WQLIB85 (V8.5 int app svr). The 'WSERVICE2 - V2.6 (web services)' server is selected and highlighted. Below the dropdown, the 'Manage Deployed Services' section shows the details for the selected server, 'WSERVICE2'. It lists several services: ConvertTemp, PRODUCTEUR, PRODUCTREST, and PRODUCTSOAP, all with green status indicators. A note at the bottom states: 'Note: To update the status, click Refresh' with a refresh icon.

3. Gérez les services via

The screenshot shows a web browser window with the address bar displaying 'http://10.3.1.108:2001/HTTPAdmin'. The browser's address bar also shows 'Non sécurisé'. The page title is 'IBM Web Administration for i'. The navigation bar includes 'Setup', 'Manage', 'Advanced', and 'Related Links'. The 'Manage' tab is selected, and the 'Application Servers' sub-tab is active. The server list shows 'WSERVICE2 - V2.6 (web services)' as the selected server. The left sidebar contains a tree view with 'Web Services' expanded, showing 'Deploy New Service' and 'Manage Deployed Services'. The main content area is titled 'Manage Web Services Server' for 'WSERVICE2'. It includes a description: 'Web services server created by the Create Web Services Se'. Below this, it states: 'The IBM integrated Web services server provides a secure a managing Web services is provided. For more information, please visit: <http://www.ibm.com/supp>'. A yellow circle highlights the 'Manage Deployed Services' button. To the right of this button, a table lists the deployed services for 'WSERVICE2':

Server: "WSERVICE2"
● ConvertTemp
● PRODUCTEUR
● PRODUCTREST
● PRODUCTSOAP

Below the table, a note states: 'Note: To update the status, click Refresh'.

The screenshot shows the IBM Web Administration for i interface. The browser address bar indicates the URL is http://10.3.1.108:2001/HTTPAdmin. The interface has a top navigation bar with 'Setup', 'Manage' (selected), 'Advanced', and 'Related Links'. Below this is a sub-navigation bar with 'All Servers', 'HTTP Servers', 'Application Servers' (selected), and 'Installations'. A status bar shows 'Running' and 'Server: WSERVICE2 - V2.6 (web services)'. The left sidebar contains a tree view with categories like 'Common Tasks and Wizards', 'Web Services' (with 'Deploy New Service' and 'Manage Deployed Services'), 'Server Properties', 'Security', 'Server Tracing', and 'Tools'. The main content area is titled 'Manage Deployed Services' and shows a table of deployed services. The data is current as of 17 nov. 2021 11:47:17. The table lists four services: ConvertTemp, PRODUCTEUR, PRODUCTREST, and PRODUCTSOAP. All are running and have automatic startup. Below the table are buttons for 'Deploy', 'Stop', 'Properties', 'Uninstall', 'Redeploy', and 'Refresh'.

	Service name	Status	Type	Startup type	Service definition
<input type="radio"/>	ConvertTemp	Running	SOAP	Automatic	View WSDL
<input type="radio"/>	PRODUCTEUR	Running	REST	Automatic	View Swagger
<input type="radio"/>	PRODUCTREST	Running	REST	Automatic	View Swagger
<input checked="" type="radio"/>	PRODUCTSOAP	Running	SOAP	Automatic	View WSDL

```
exec sql SET OPTION COMMIT=*NONE,CLOSQLCSR=*ENDMOD,DATFMT=*ISO ;
exec sql VALUES(SELECT XMLGROUP(TRIM(CHGCOD) AS "change_Code",
                                TRIM(STATE) AS "Etat",
                                CUSNUM AS "N_client",
                                LSTNAM AS "Last_name"

                                OPTION ROW "code" ROOT "clients")
FROM qiws.qcustcdt)
INTO :XmlData ;
```

4. Sauvegardez le fichier json "swagger" du Web service PRODUCTREST.

IBM Web Administration for i

Setup Manage Advanced Related Links

All Servers HTTP Servers Application Servers Installations

Running Server: WSERVICE2 - V2.6 (web services)

Common Tasks and Wizards

Web Services

- Deploy New Service
- Manage Deployed Services

Server Properties

- Properties
- View HTTP Servers

Security

Server Tracing

- View Logs
- View Create Summary

Tools

- Web Log Monitor
- Create Certificate
- Manage Certificates
- Create Keystore

WSERVICE2 > Manage Deployed Services

Manage Deployed Services

Data current as of 17 nov. 2021 16:56:48.

Deployed services:

	Service name	Status	Type	Startup type	Service definition
<input type="radio"/>	ConvertTemp	Running	SOAP	Automatic	View WSDL
<input type="radio"/>	PRODUCTEUR	Running	REST	Automatic	View Swagger
<input checked="" type="radio"/>	PRODUCTREST	Running	REST	Automatic	View Swagger
<input type="radio"/>	PRODUCTSOAP	Running	SOAP	Automatic	View WSDL

Deploy Stop Properties Uninstall Redeploy Refresh

Ouvrir le lien dans un nouvel onglet

Ouvrir le lien dans une nouvelle fenêtre

Ouvrir le lien dans une fenêtre en navigation privée

Ouvrir le lien avec le compte

Enregistrer le lien sous...

Copier l'adresse du lien

Enregistrer dans Zotero

Inspecter

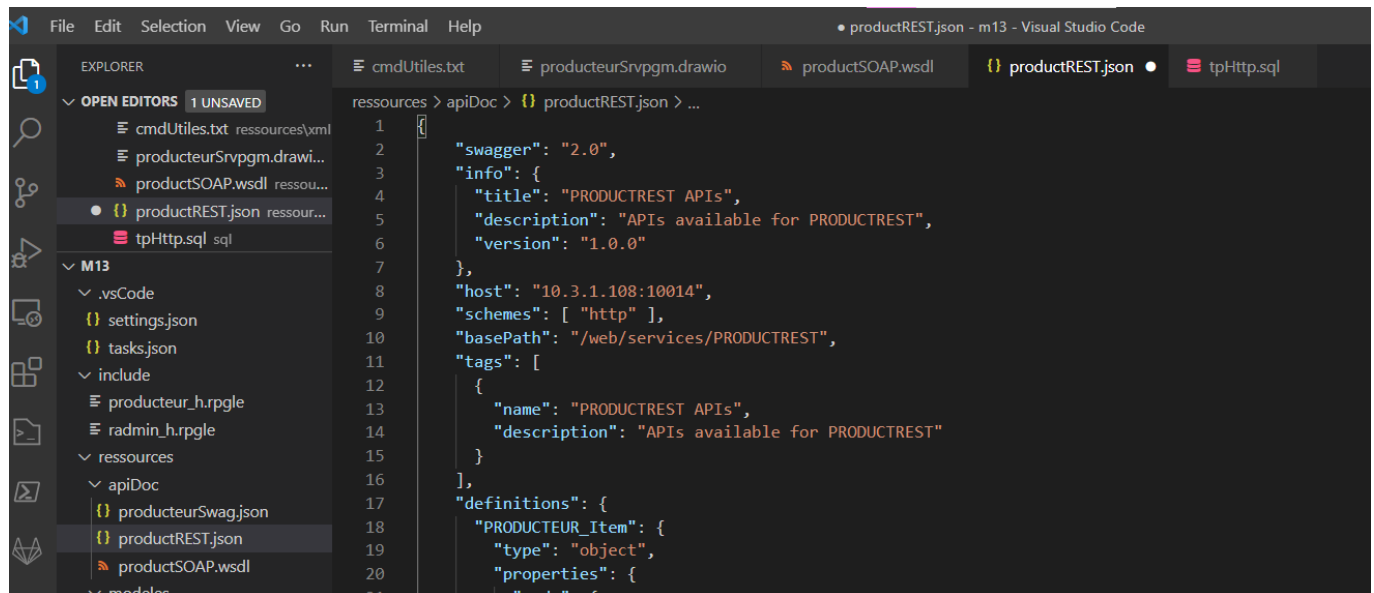
HTTP Server Administration on P x 10.3.1.108:2001/HTTPAdmin/Swa x

Non sécurisé | http://10.3.1.108:2001/HTTPAdmin/SwaggerViewer?WebServiceName=PRODUCTREST

Applications Gmail YouTube Maps AnyDesk VolubisIN NASx2 as400Nav4I Adobe drawio Keepass Wekan Trello

```
{
  "swagger": "2.0",
  "info": {
    "title": "PRODUCTREST APIs",
    "description": "APIs available for PRODUCTREST",
    "version": "1.0.0"
  },
  "host": "10.3.1.108:10014",
  "schemes": [ "http" ],
  "basePath": "/web/services/PRODUCTREST",
  "tags": [
    {
      "name": "PRODUCTREST APIs",
      "description": "APIs available for PRODUCTREST"
    }
  ],
  "definitions": {
    "PRODUCTEUR_Item": {
      "type": "object",
      "properties": {
        "code": {
          "type": "integer",
          "format": "int32"
        },
        "nom": {
          "type": "string",
          "maxLength": 50
        }
      }
    }
  }
}
```

CTRL-A puis CTRL-C CTRL-V dans un éditeur de texte (ici visual studio code)

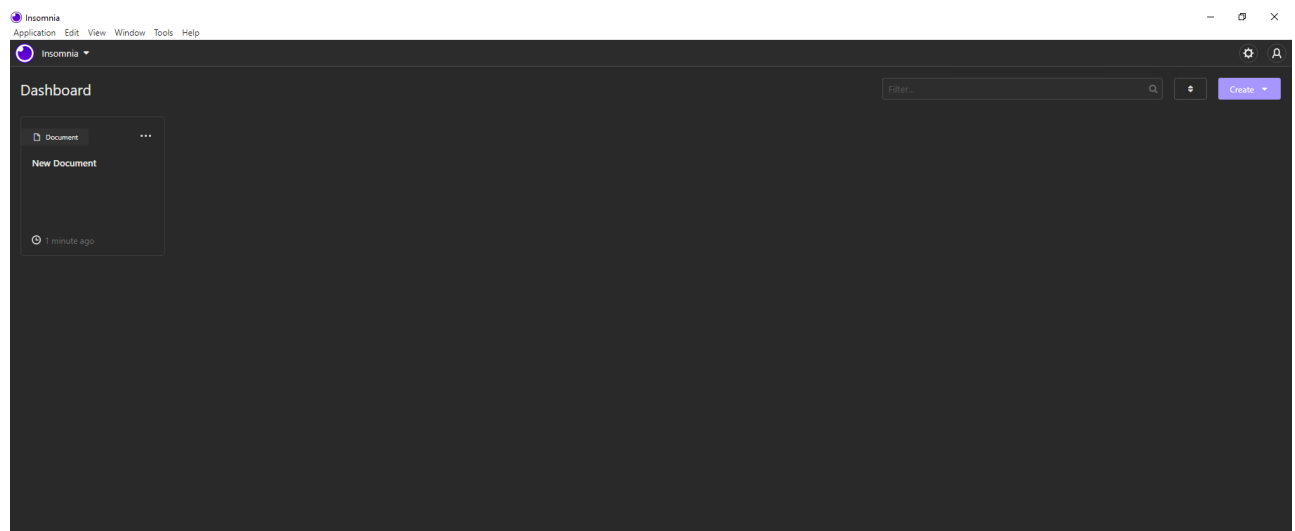


The screenshot shows the Visual Studio Code interface. The Explorer on the left displays the file structure of a project named 'M13'. The file 'productREST.json' is selected under the 'apiDoc' folder. The main editor shows the content of 'productREST.json', which is a Swagger 2.0 API definition. The JSON content is as follows:

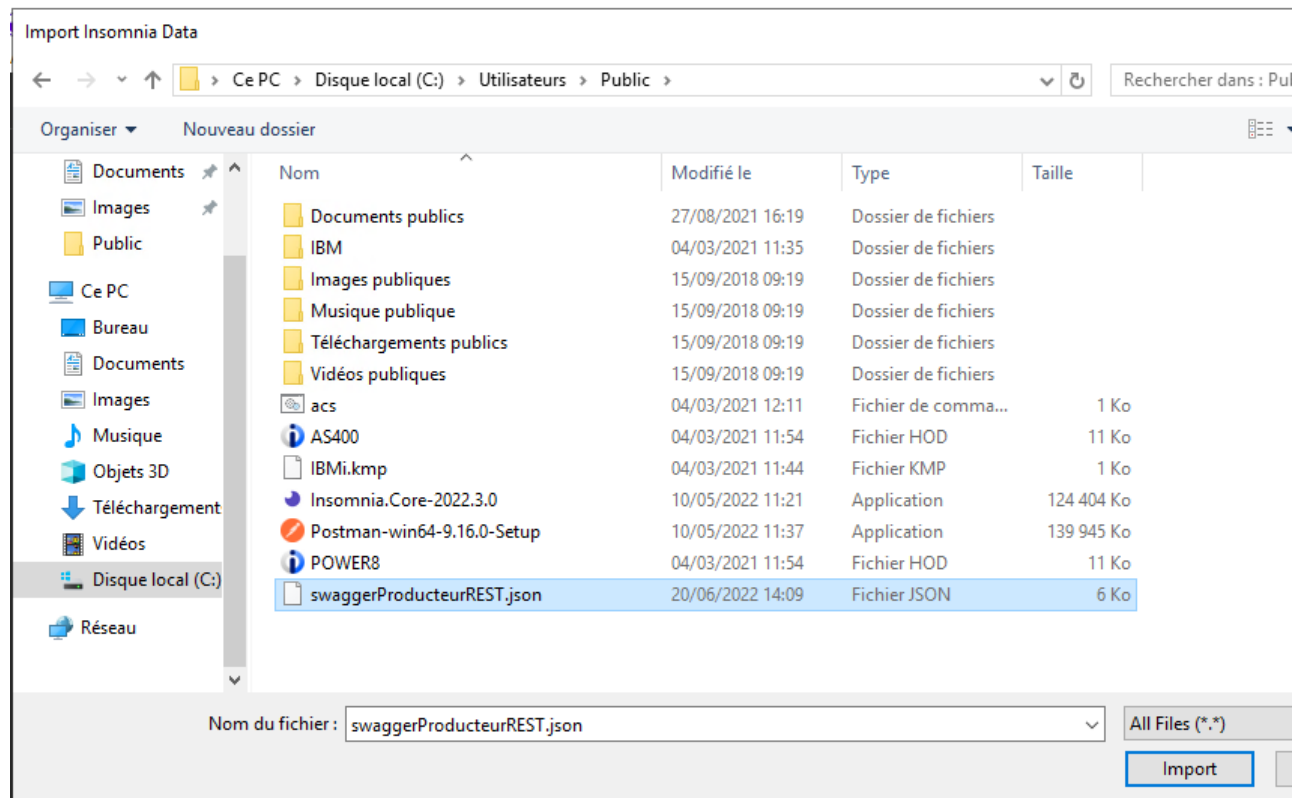
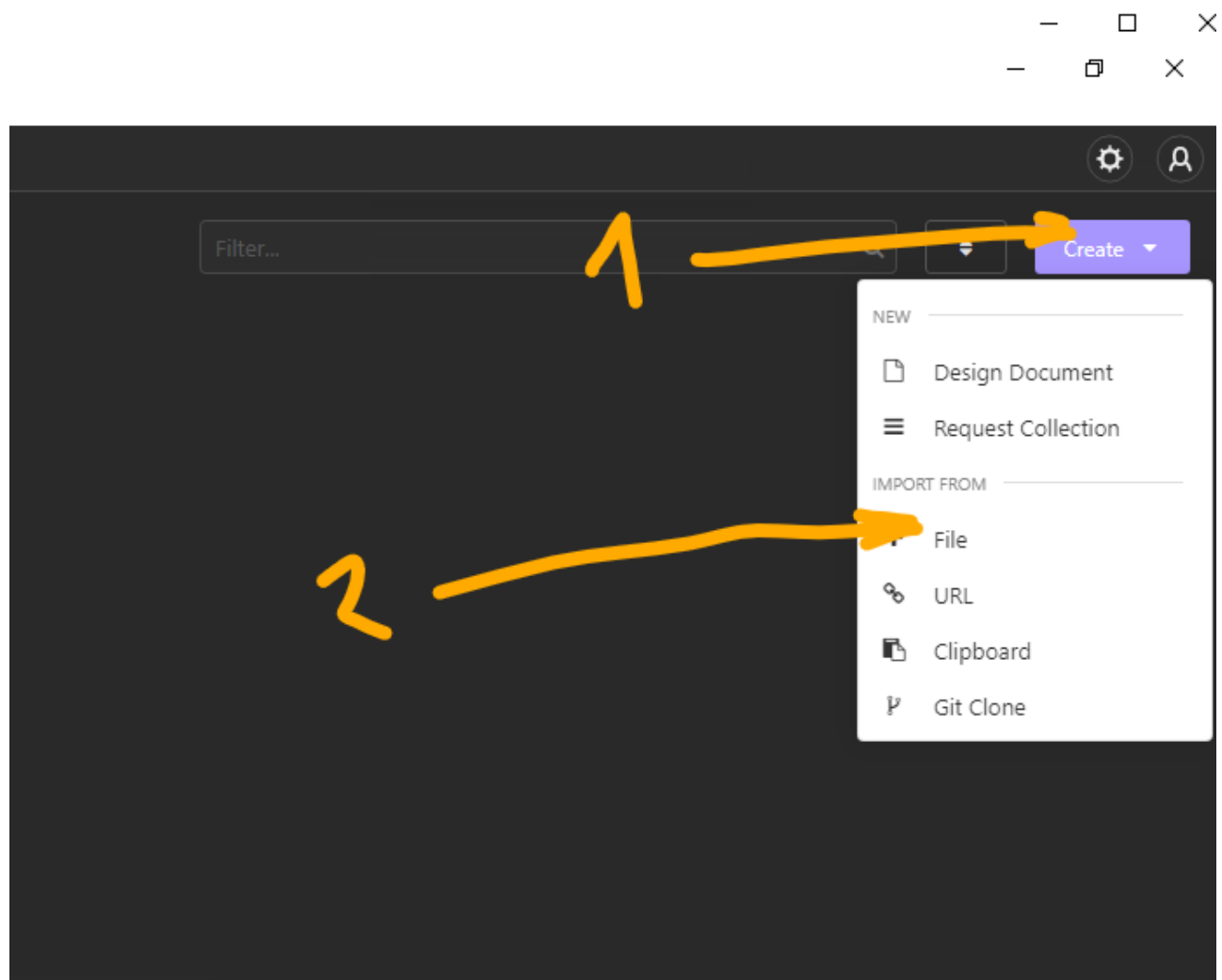
```
{
  "swagger": "2.0",
  "info": {
    "title": "PRODUCTREST APIs",
    "description": "APIs available for PRODUCTREST",
    "version": "1.0.0"
  },
  "host": "10.3.1.108:10014",
  "schemes": [ "http" ],
  "basePath": "/web/services/PRODUCTREST",
  "tags": [
    {
      "name": "PRODUCTREST APIs",
      "description": "APIs available for PRODUCTREST"
    }
  ],
  "definitions": {
    "PRODUCTEUR_Item": {
      "type": "object",
      "properties": {
        "code": {
```

Initier PRODUCTREST dans Insomnia.

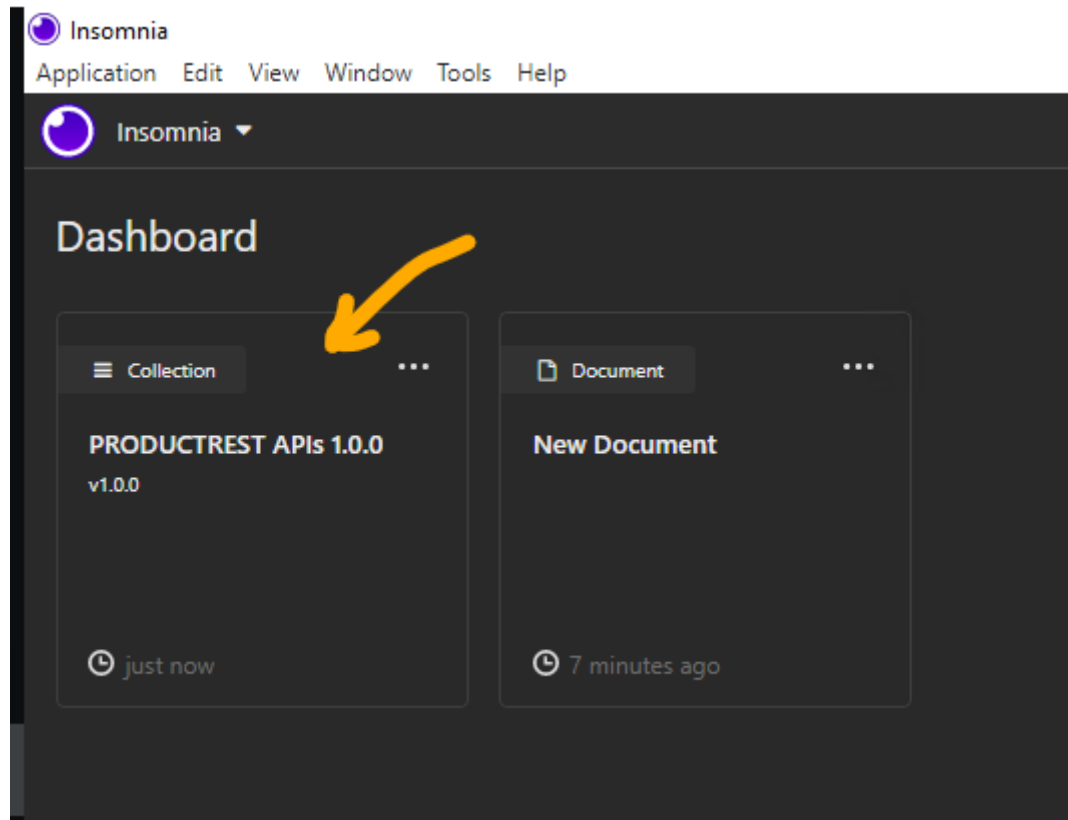
1. Ouvrez Insomnia.
2. Placez vous dans le "DashBoard"



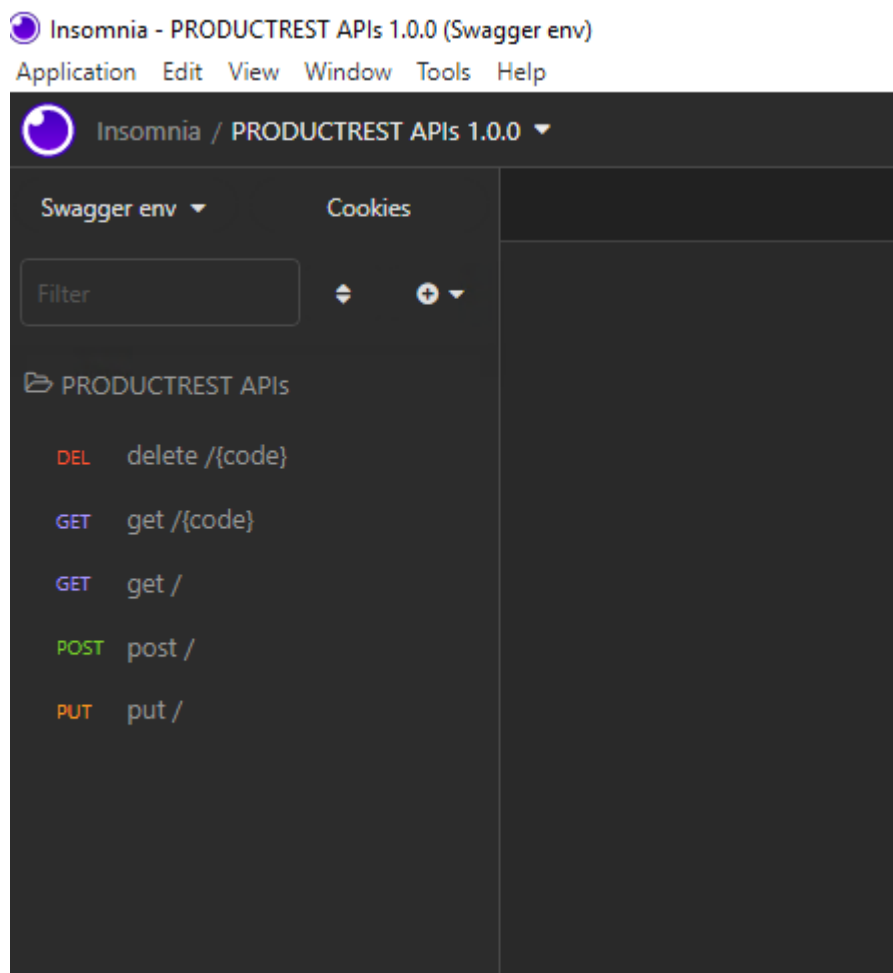
3. Importez le fichier swagger précédemment sauvegardé.



4. Choisissez un nouveau workspace et une "request collection"



5. si vous voyez cela ,c'est ok.



⚠ problème possible avec la dernier ligne ==> ajouter un blanc en fin de ligne après la dernière parenthèse.

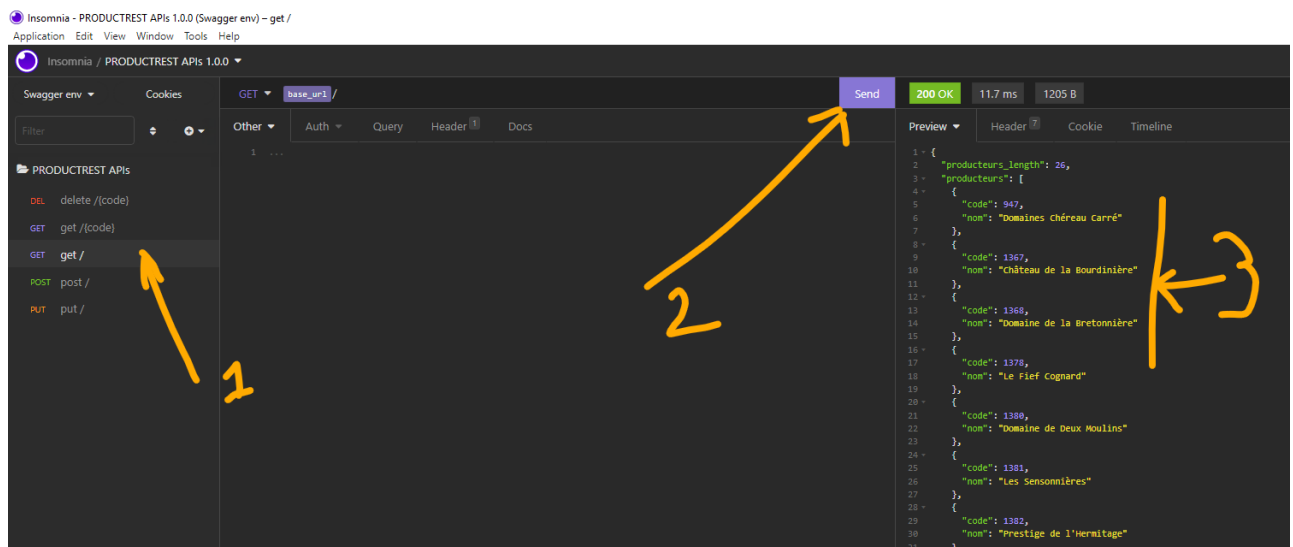
```

229         "$ref": "#/definitions/PRODUCTEUR_Detail"
230     }
231 }
232 ],
233 "responses": {
234     "200": {
235         "description": "Successful operation"
236     },
237     "500": {
238         "description": "Unexpected exception"
239     }
240 }
241 }
242 }
243 }
244 }

```

Lister les producteurs

1. Sélectionnez le verbe GET
2. Double-cliquez sur get/



Créer un producteur

1. Requêtez le verbes POST idem ci-dessus
2. Remplissez les valeurs du nouveau producteur.

```

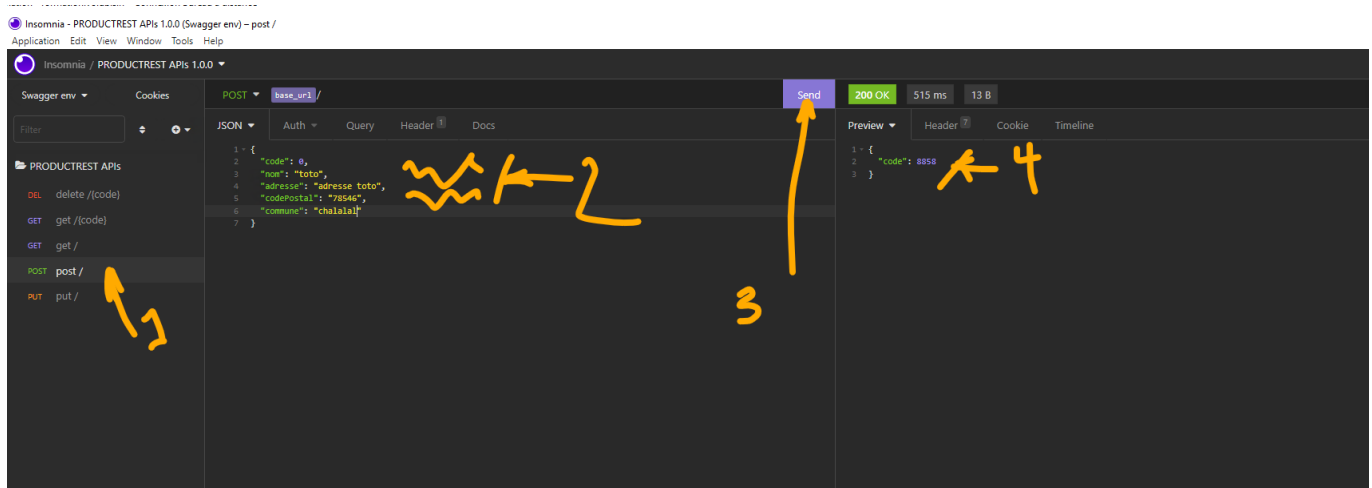
{
  "code": 0,
  "nom": "nom test Yvon 1",
  "adresse": "adresse Yvon 1",
  "codePostal": "cccc",

```

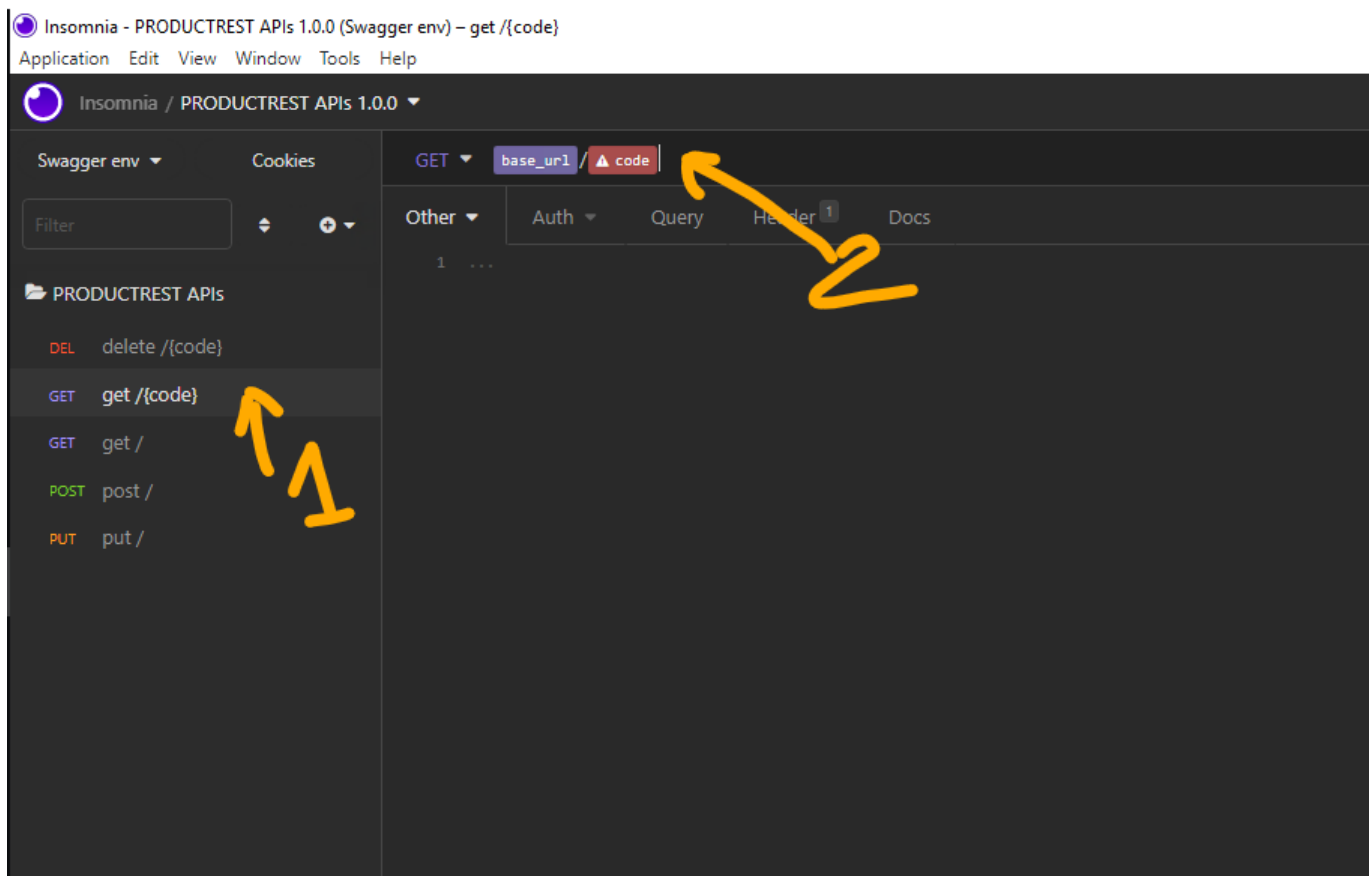


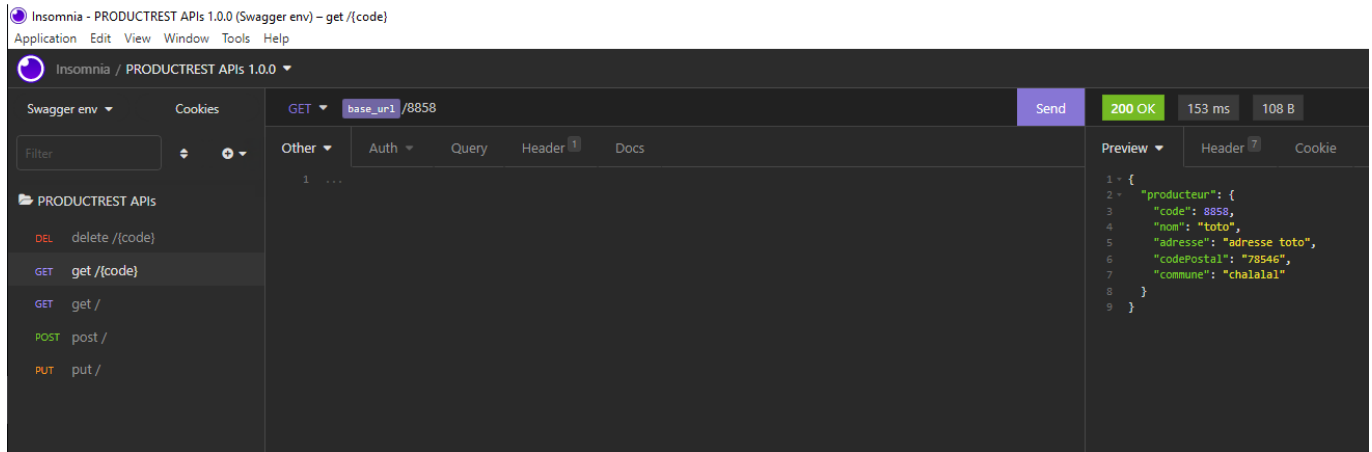
```
"commune": "78521"
}
```

1. Envoyez
2. Récupérez le code du nouveau producteur.

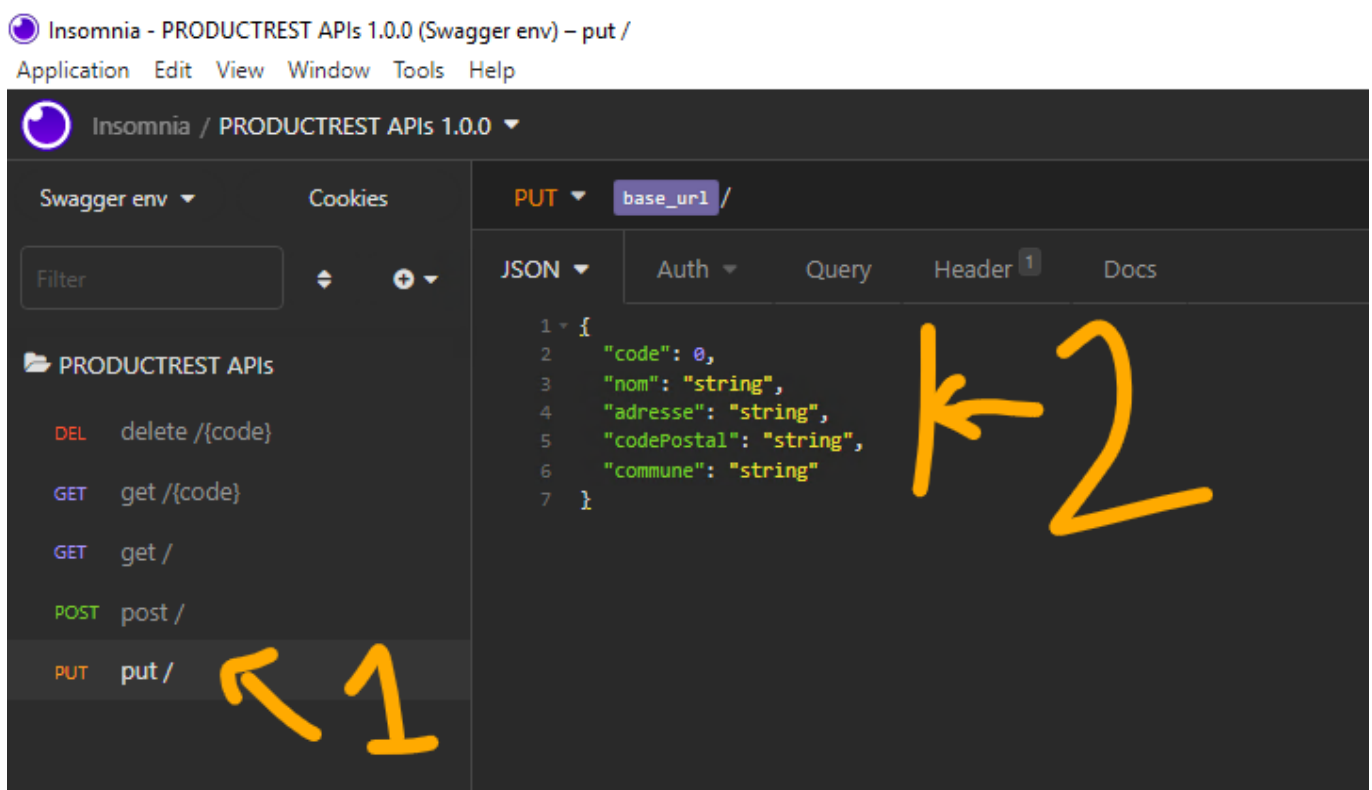


Afficher le détail du producteur

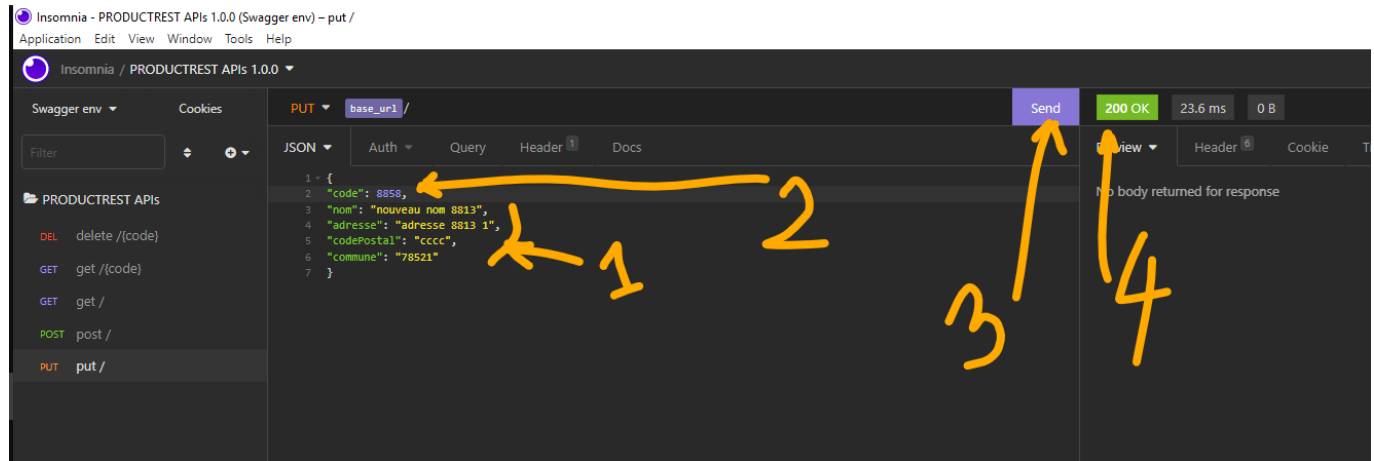




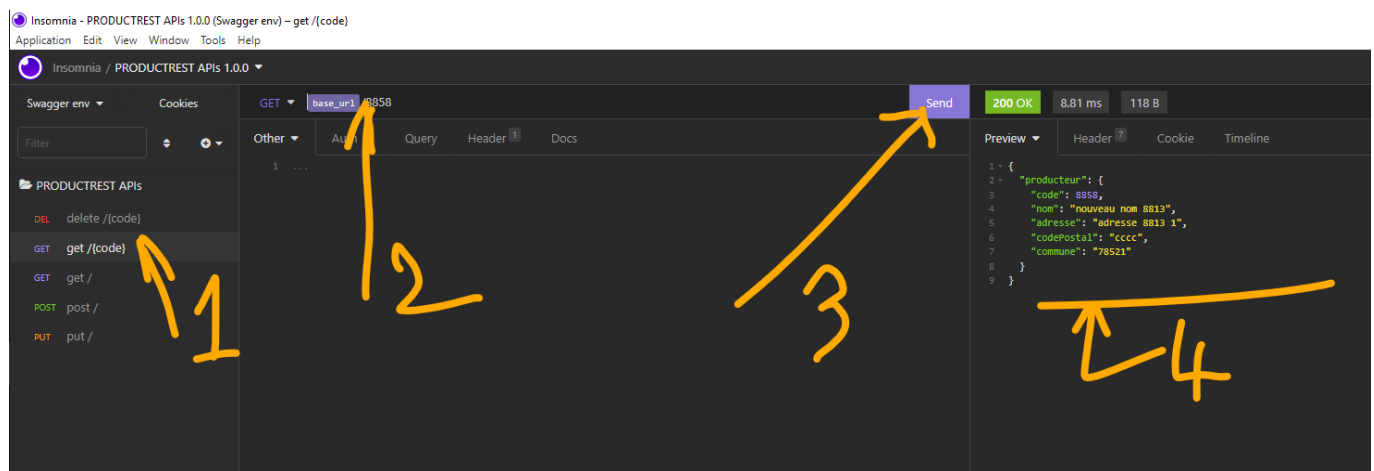
Modifier le nouveau producteur



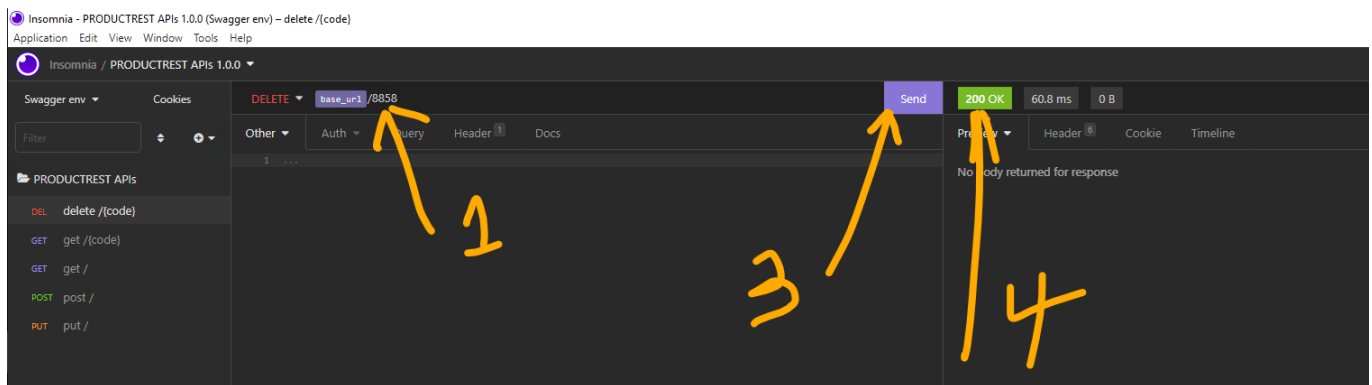
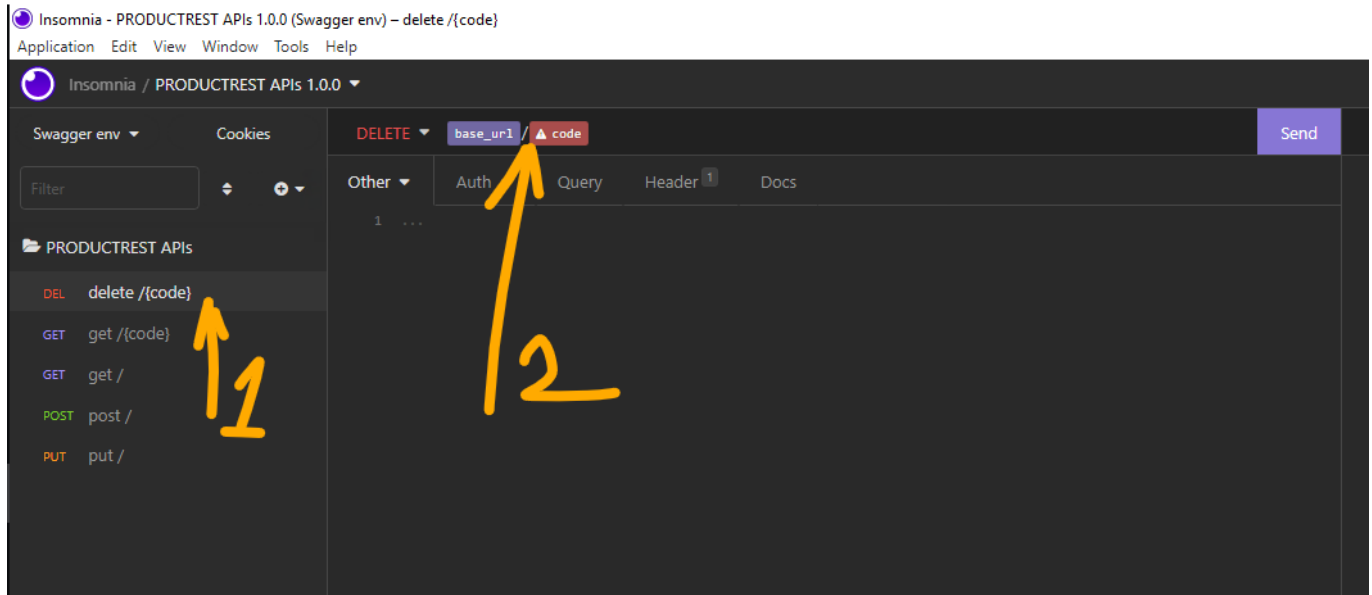
```
{  "code": 8813,  "nom": "nouveau nom 8813",  "adresse": "adresse 8813 1",  "codePostal": "cccc",  "commune": "78521"}
```



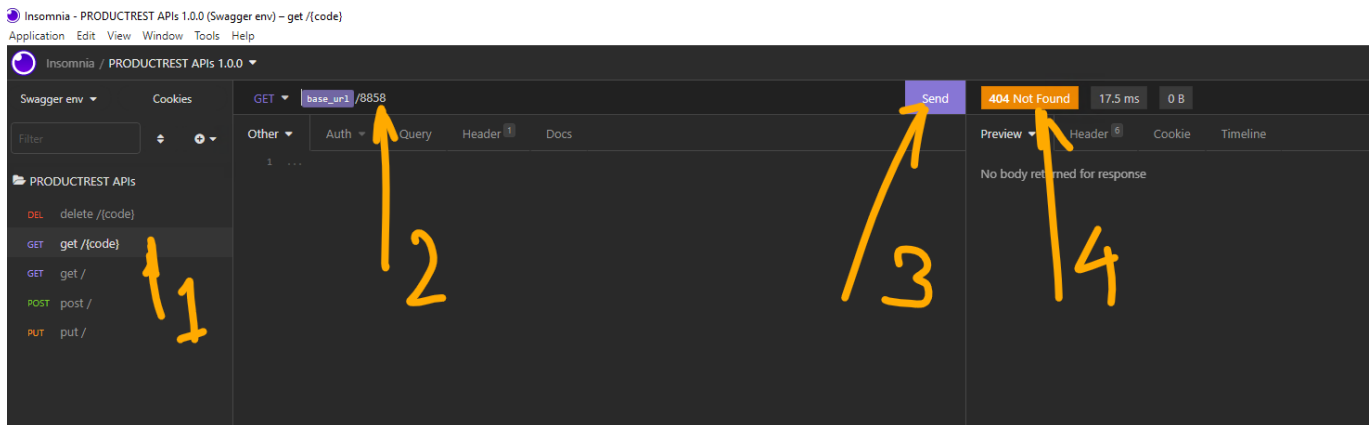
? vérifiez en affichant le détail



Supprimer le nouveau producteur



? vérifier en affichant le détail



Sauvegarder le projet