

theodo. |



CentraleSupélec

Ingénierie des modèles & Développement web

La spécification OpenAPI

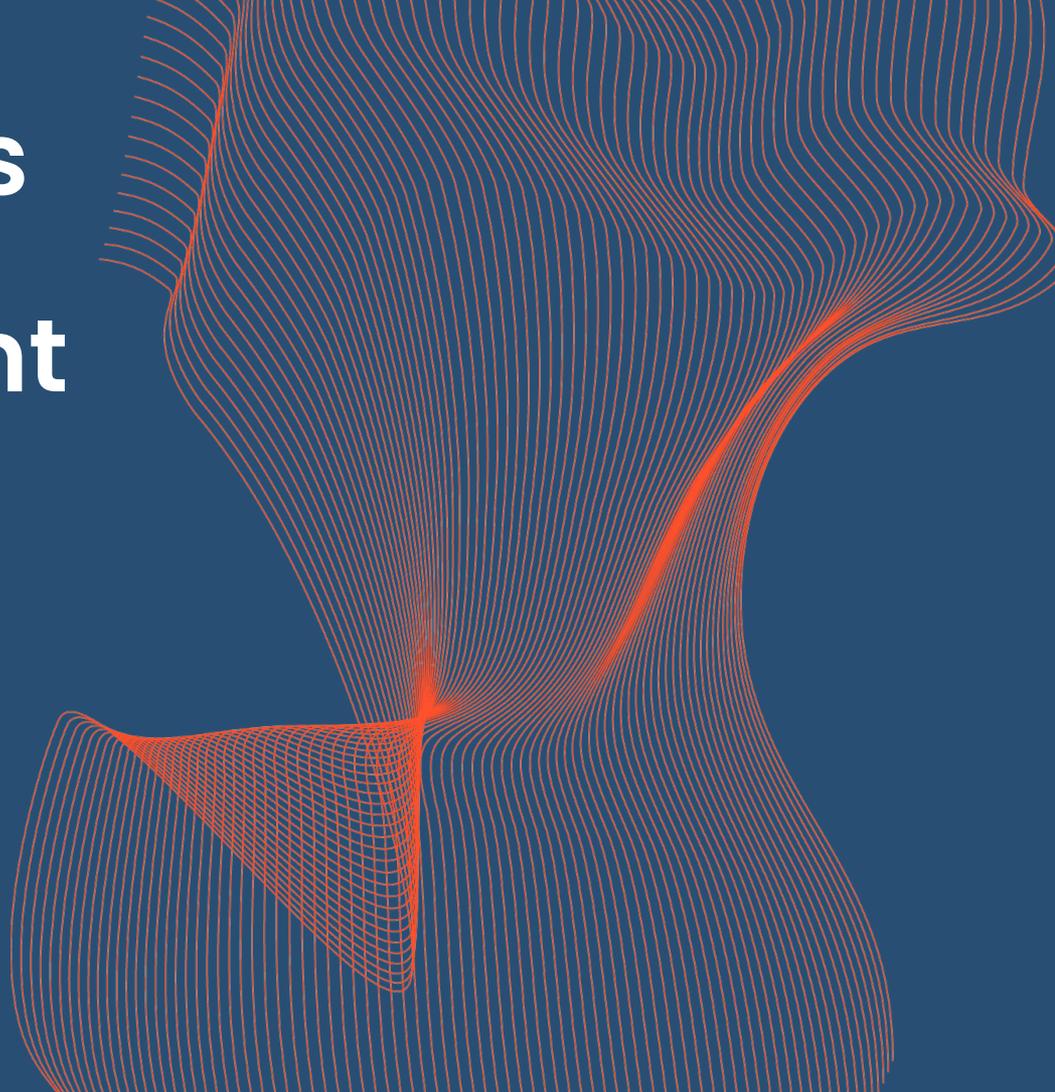
Le groupe Theodo est un cabinet de conseils et de réalisations IT

Les expertises du groupe Theodo



Utilisations des modèles en développement web

Ou Pourquoi on a besoin de standards



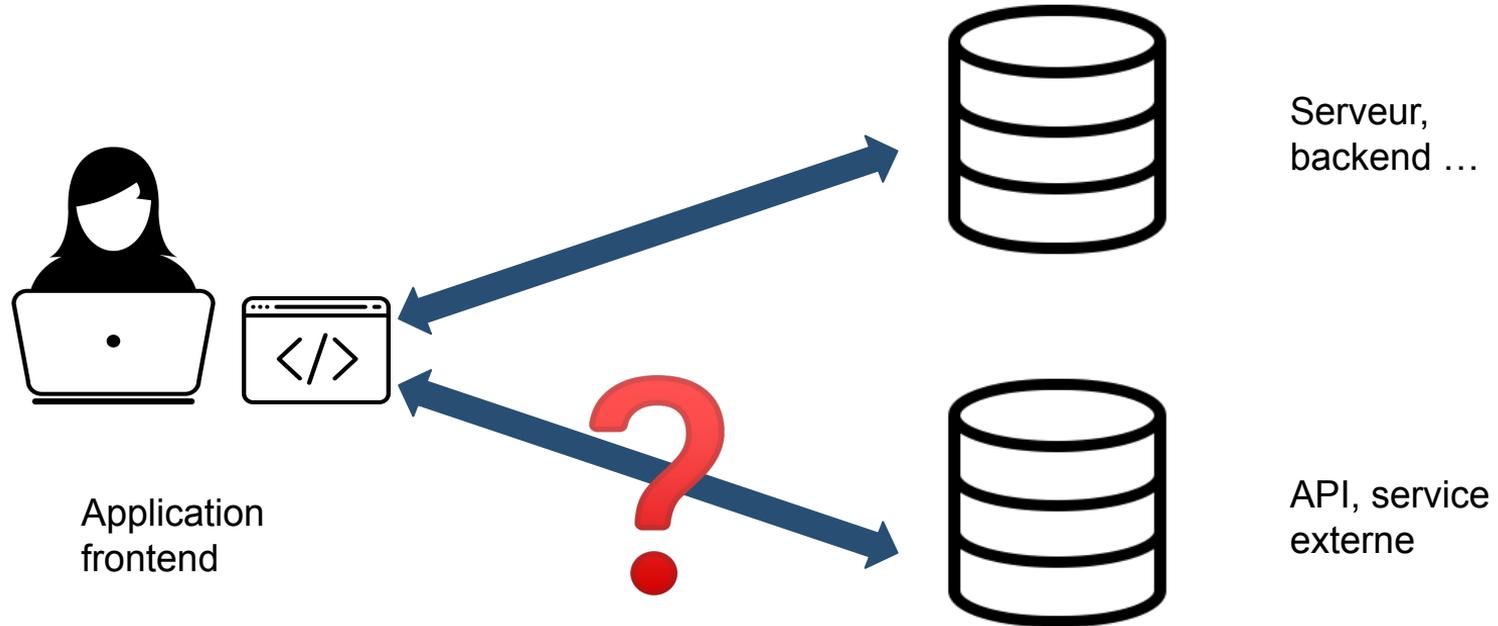
Une même réalité peut être représentée par plusieurs modèles

Modèles en ingénierie



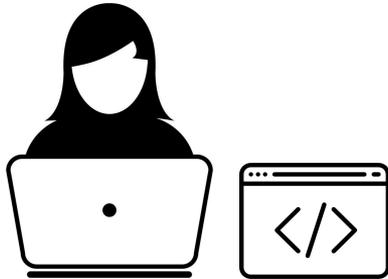
En développement web, on a besoin de communiquer avec différents services

Une architecture web simple



Les services web mettent à disposition des interfaces de programmation

Application Programming Interface



Swagger Petstore

1.0.0 OAS3

This is a sample Petstore server. You can find out more about Swagger at <http://swagger.io> or on [irc.freenode.net](https://twitter.com/irc_freenode), #swagger.

[Terms of service](#)

[Contact the developer](#)

Apache 2.0

[Find out more about Swagger](#)

Servers

Authorize

pet Everything about your Pets Find out more ^

POST	/pet	Add a new pet to the store			
PUT	/pet	Update an existing pet			
GET	/pet/findByStatus	Finds Pets by status			
GET	/pet/findByTags	Finds Pets by tags			
GET	/pet/{petId}	Find pet by ID			
POST	/pet/{petId}	Updates a pet in the store with form data			
DELETE	/pet/{petId}	Deletes a pet			



On peut décrire le contenu d'une API selon une description standardisée

La spécification OpenAPI



```
{} openapi.json > [ ] tags > {} 2
1  {
2  "swagger": "2.0",
3  "info": {
4    "description": "A semantic version number of the API. Petstore server. You can find out more about Swagger
5    "version": "1.0.6",
6    "title": "Swagger Petstore",
7    "termsOfService": "http://swagger.io/terms/",
8    "contact": { "email": "apiteam@swagger.io" },
9    "license": {
10     "name": "Apache 2.0",
11     "url": "http://www.apache.org/licenses/LICENSE-2.0.html"
12   }
13 },
14 "host": "petstore.swagger.io",
15 "basePath": "/v2",
16 "tags": [
17   {
18     "name": "pet",
19     "description": "Everything about your Pets",
20     "externalDocs": {
21       "description": "Find out more",
22       "url": "http://swagger.io"
23     }
24   },
25   { "name": "store", "description": "Access to Petstore orders" },
26   {
27     "name": "user",
28     "description": "Operations about user",
29     "externalDocs": {
```

Swagger Petstore

1.0.0 GAS5

This is a sample Petstore server. You can find out more about Swagger at <http://swagger.io> or on irc.freenode.net, #swagger.

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Servers

Authorize

pet Everything about your Pets

Find out more

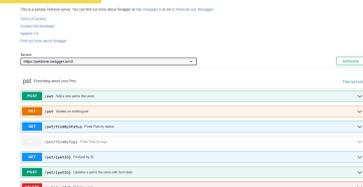
POST	/pet	Add a new pet to the store		
PUT	/pet	Update an existing pet		
GET	/pet/findByStatus	Finds Pets by status		
GET	/pet/findByTags	Finds Pets by tags		
GET	/pet/{petId}	Find pet by ID		
POST	/pet/{petId}	Updates a pet in the store with form data		
DELETE	/pet/{petId}	Deletes a pet		

La description standardisée d'une API facilite grandement son utilisation

Modélisation d'une API



```
1 {  
2   "swagger": "2.0",  
3   "info": {  
4     "description": "A simple description number of the API. Some services. You can find out more about Swagger",  
5     "version": "1.0.0",  
6     "title": "Swagger Petstore",  
7     "termsOfService": "http://swagger.io/terms/",  
8     "contact": { "email": "support@swagger.io" },  
9     "license": { "name": "Apache 2.0",  
10      "url": "http://www.apache.org/licenses/LICENSE-2.0.html" }  
11   },  
12   "schemes": ["http", "https"],  
13   "security": {  
14     "Petstore_auth": [ { "bearer": "bearer" } ]  
15   },  
16   "paths": {  
17     "/pets": {  
18       "get": {  
19         "description": "Returning all your pets",  
20         "responses": {  
21           "200": {  
22             "schema": {  
23               "$ref": "#/definitions/Pet" }  
24             }  
25           }  
26         }  
27       },  
28       "post": {  
29         "description": "Access to Petstore users",  
30         "responses": {  
31           "200": {  
32             "schema": {  
33               "$ref": "#/definitions/Pet" }  
34             }  
35           }  
36         }  
37       }  
38     },  
39     "/pets/{petId}": {  
40       "get": {  
41         "description": "Returning a single pet",  
42         "responses": {  
43           "200": {  
44             "schema": {  
45               "$ref": "#/definitions/Pet" }  
46             }  
47           }  
48         }  
49       }  
50     }  
51   }  
52 }  
53 }  
54 }
```



Cas pratique : écriture d'un client d'API

Génération automatique de code

Merci de votre participation !



Thomas Eudes
Tech Lead @Theodo



Aidez nous à améliorer le contenu de la séance
en répondant au questionnaire ci-dessous



theodo.

