

# La triche sur un Serious Game

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## I-Learning

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Maître de stage : Henri DARMET

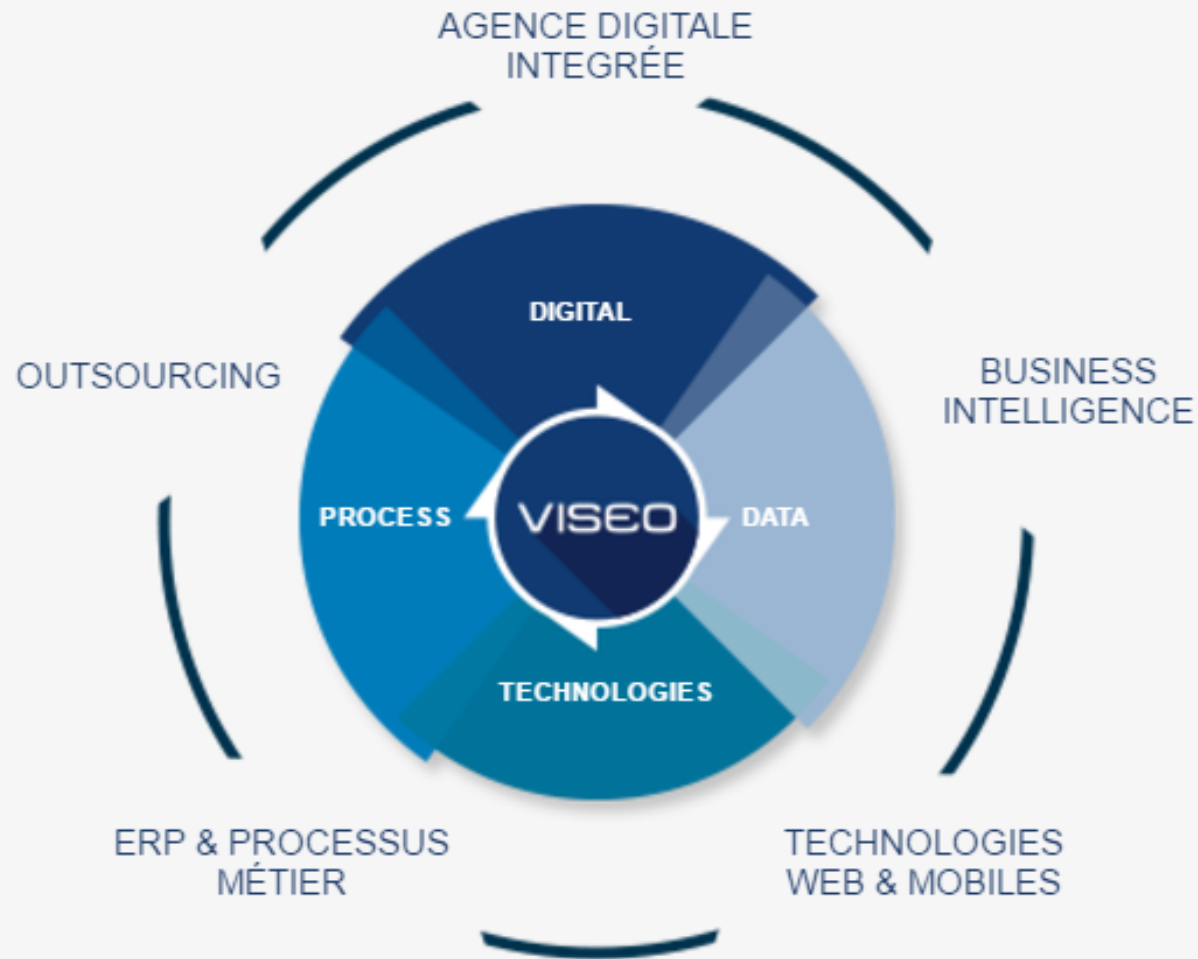
Enseignants tuteurs : Fabrice LEGOND-AUBRY

**Année 2016 - 2017**

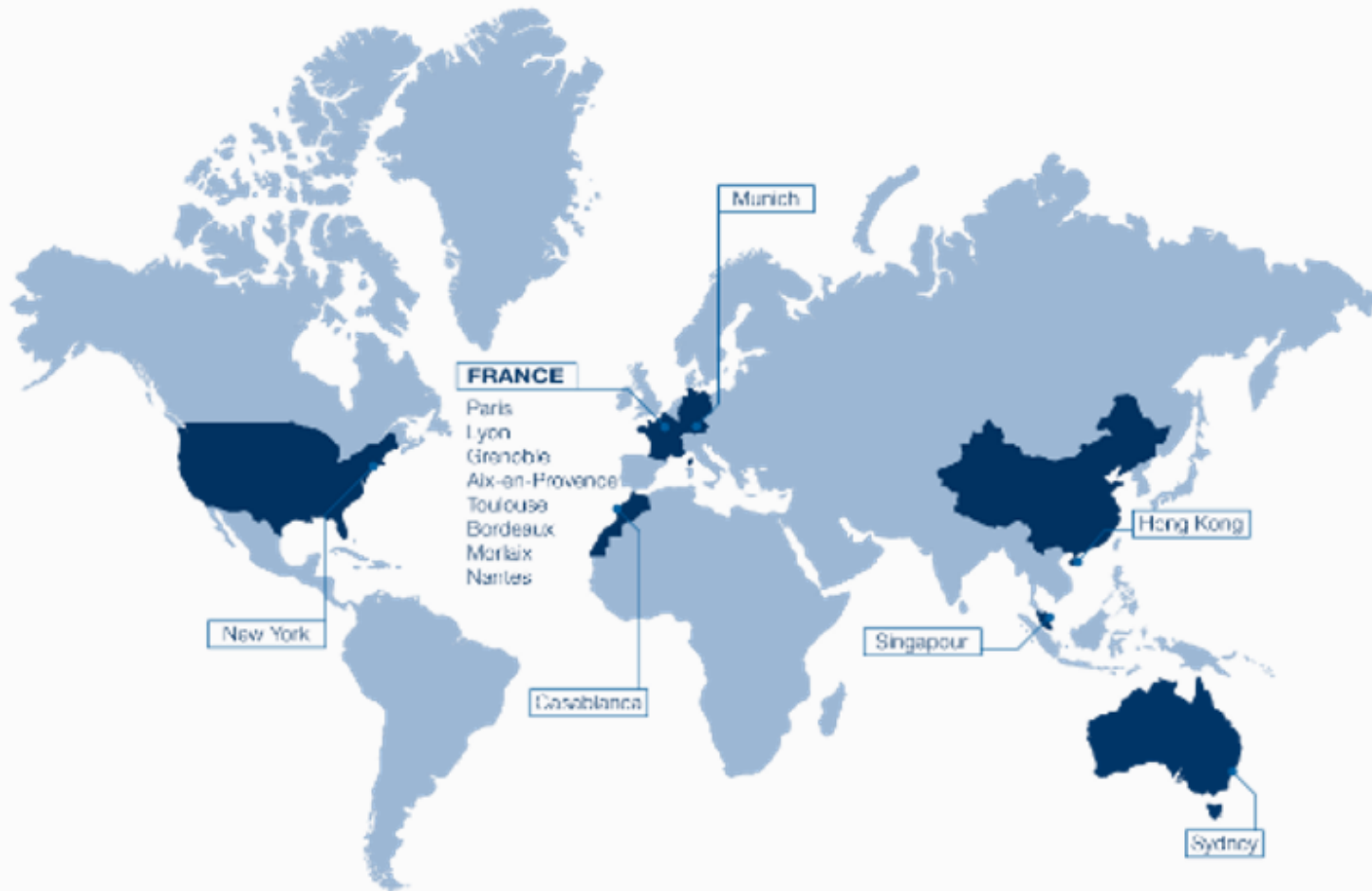
# Executive summary

- *VISEO*
- *I-Learning*
- *Missions*
- *La triche*
- *Problématique*
- *Solutions*
- *Bilan*

# VERSEO : Activités



# VERSEO : Chiffres clés



## Chiffre d'affaire



2016

130M€

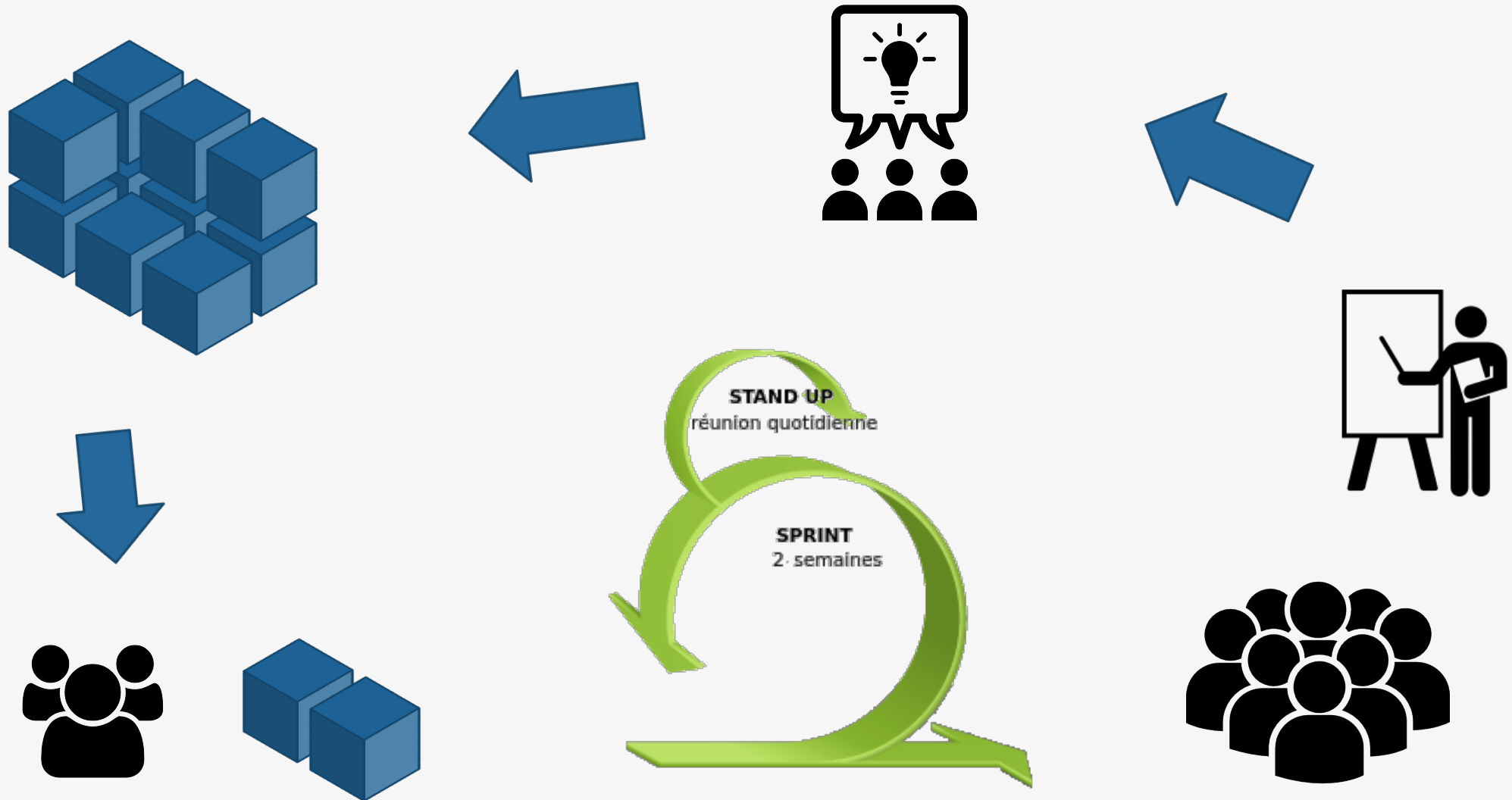
## Effectif



2016

1200

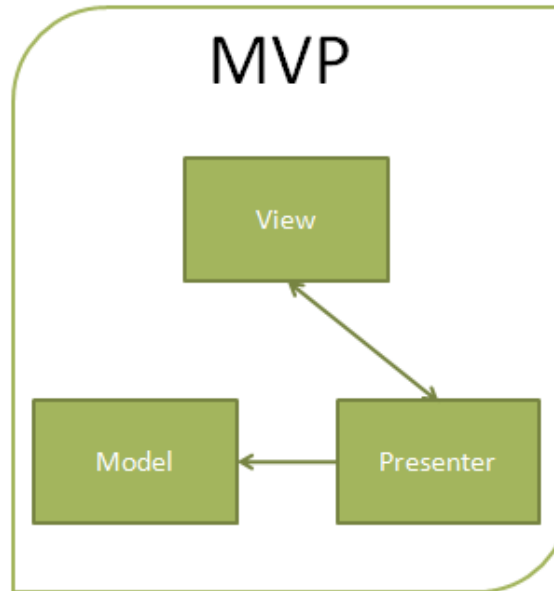
# VERSEO : Agilité



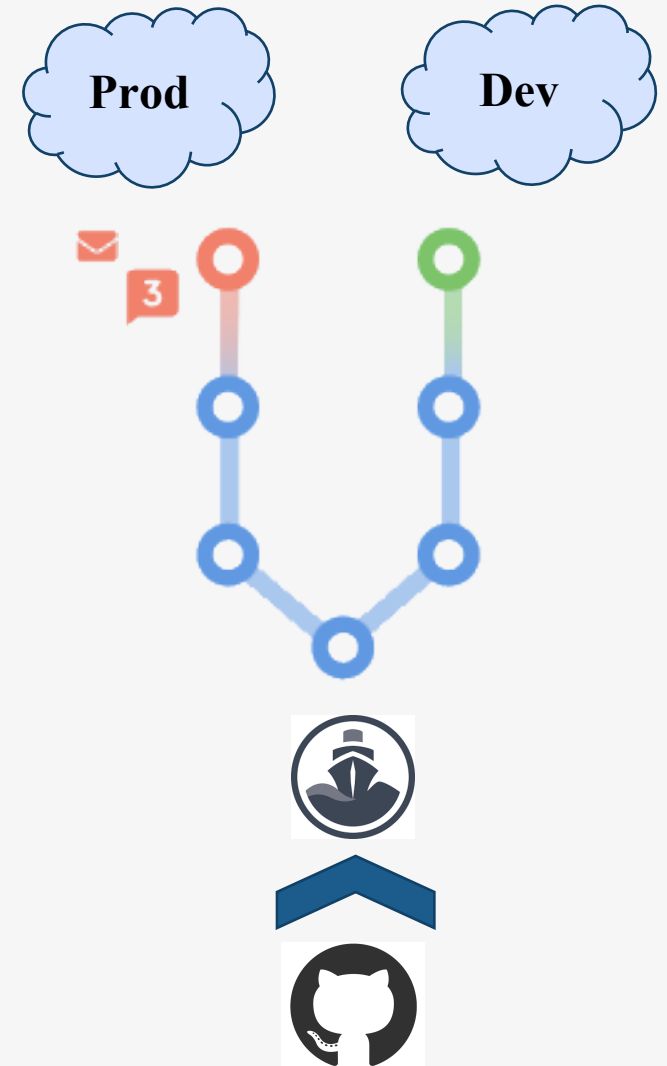
# I-Learning : L'objectif



# I-Learning : Ingénierie

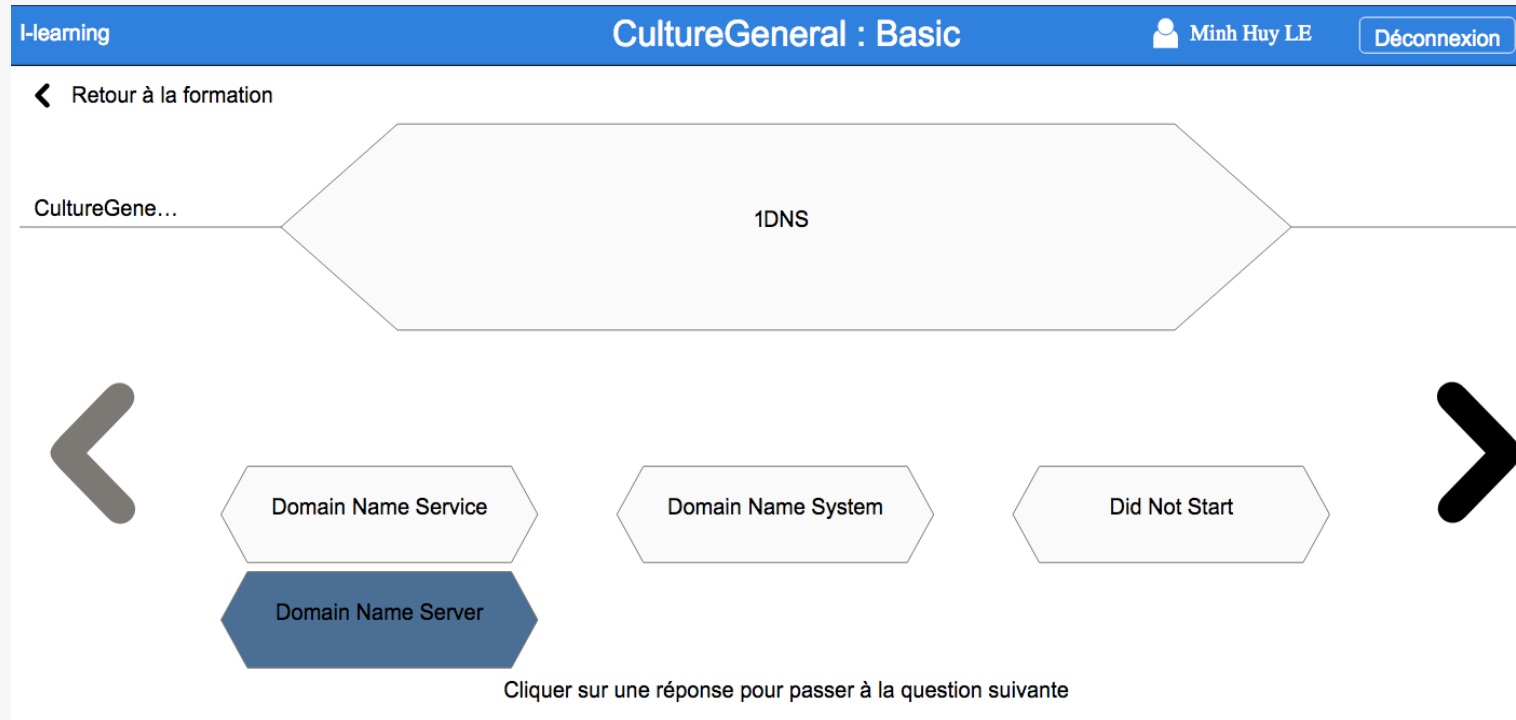


{ REST }



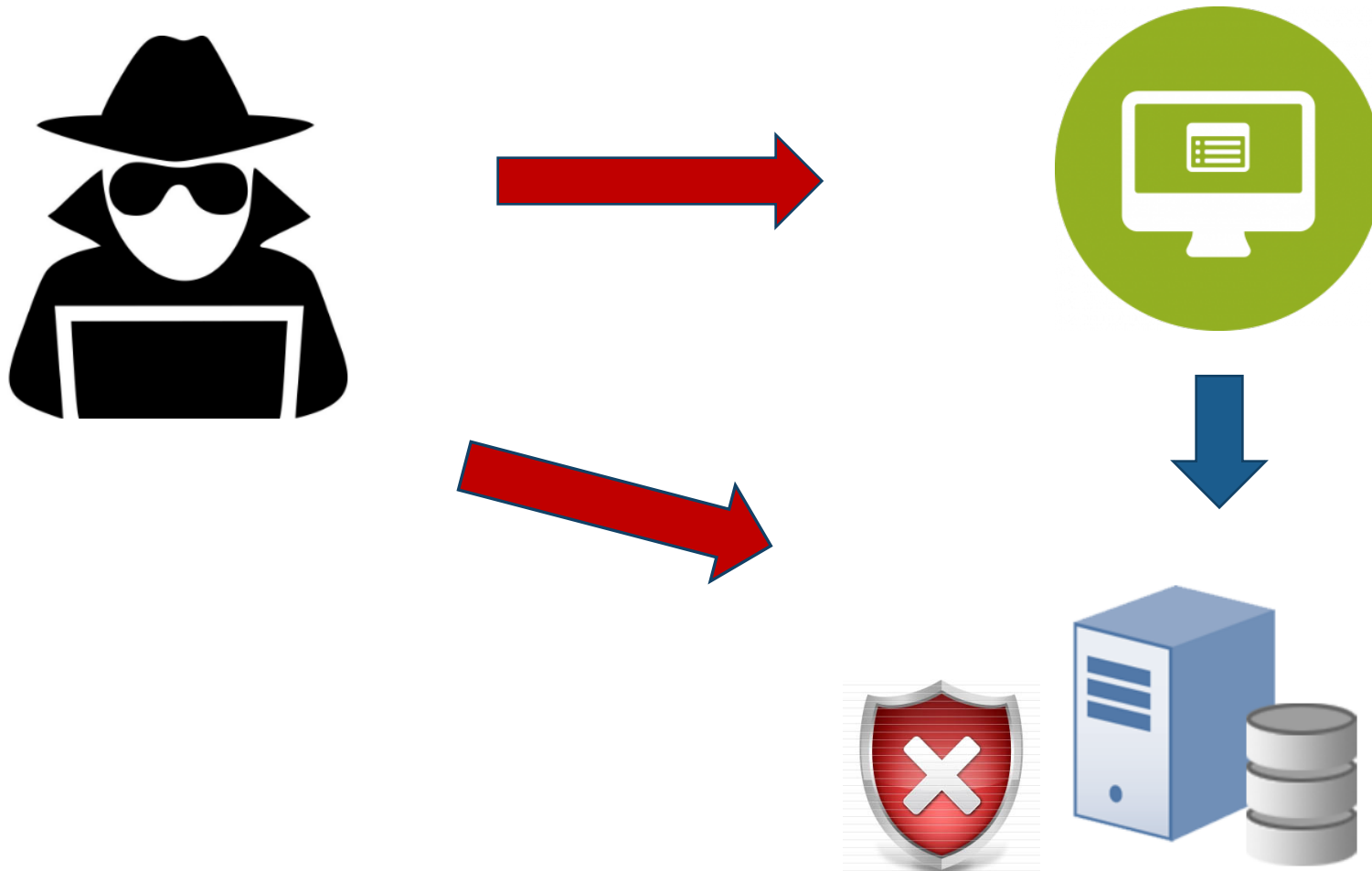
# Missions

- *Réfactoring du code (MVP)*
- *Réalisations des tests*
- *Développement API REST*
- *Développement de nouveaux jeux*





# La triche



# La triche : Code inspection

**I-learning**

**Java : Basic**

 MinhHuy LE

[Déconnexion](#)

[Retour à la formation](#)

Java

1 hashCode() renvoie

int

boolean

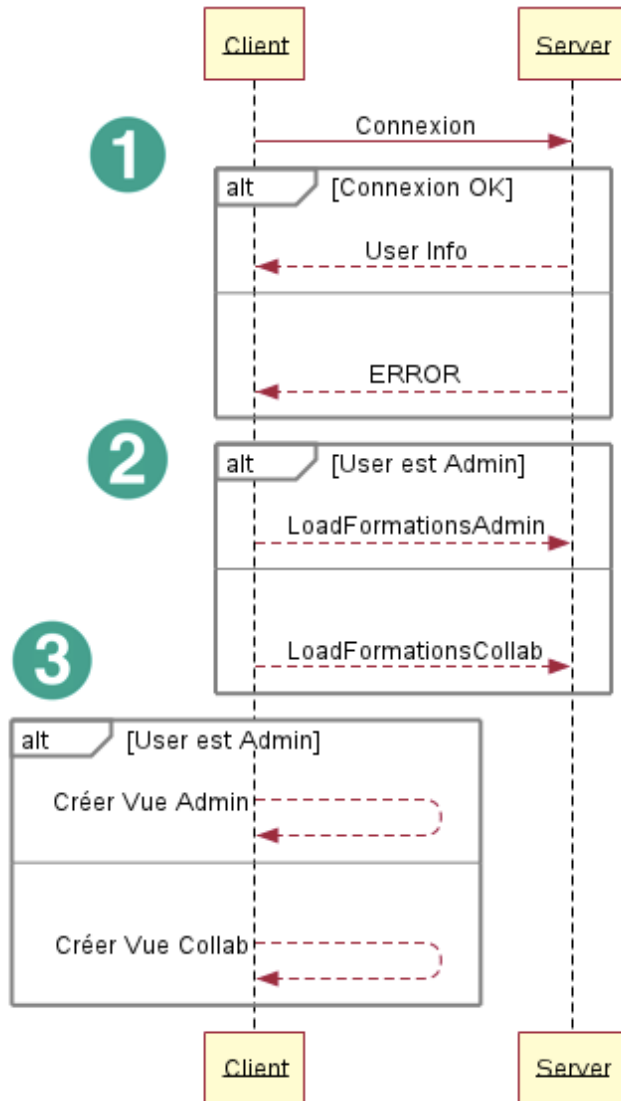
Cliquer sur une réponse pour passer à la question suivante

```
1473  
1474 ▶ this.openPopIn && this.openPopIn();  
1475 this.openPopIn = null;  
1476
```

```
▼ this: QuestionVueCollab  
  ▶ answersManipulator: Manipulate  
  ▶ border: Polygon  
  ▶ content: Text  
    fontSize: 20  
    height: 222.79999999999998  
    imageLoaded: true  
    imageSrc: ""  
    invalidLabelInput: false  
  ▶ invalidQuestionPictogramManip  
    label: "hashCode() renvoie "
```

```
▼ rightAnswers: Array(1)  
  ▼ 0: AnswerVueCollab  
    ▶ border: Polygon  
    ▼ content: Text  
      anchorText: "middle"  
      ▶ component: text  
        fontName: "Arial"  
        fontSize: 20  
        id: "answerElementContent1"  
        lineSpacing: 40  
      ▶ lines: Array(0)  
        messageText: " int "  
        originalText: " int "
```

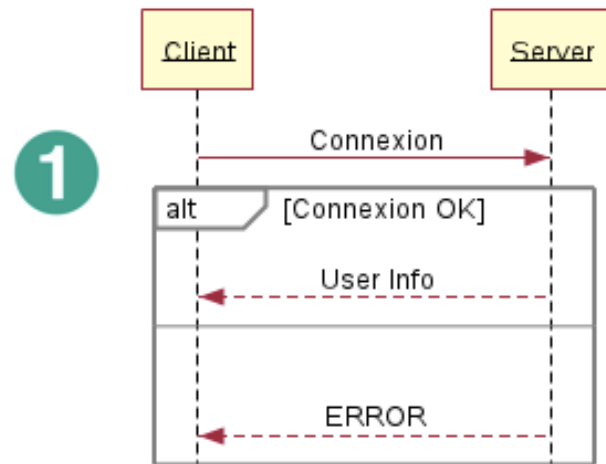
# La triche : Code modification



## ▼ Event Listener Breakpoints

- ▶ ☐ Animation
- ▶ ☐ Canvas
- ▶ ☐ Clipboard
- ▶ ☐ Control
- ▶ ☐ Device
- ▶ ☐ DOM Mutation
- ▶ ☐ Geolocation
- ▶ ☐ Drag / drop
- ▶ ☐ Keyboard
- ▶ ☐ Load
- ▶ ☐ Media
- ▶ ☐ Mouse
- ▶ ☐ Notification
- ▶ ☐ Parse
- ▶ ☐ Pointer
- ▶ ☐ Script
- ▶ ☐ Timer
- ▶ ☐ Touch
- ▶ ☐ Window
- ▶ ☐ XHR

# La triche : NoSQL Injection



**Forme initiale :**

```
{
  "email" : "minhhuyle"
  "password" : "motdepassecomplicuer"
}
```

**Forme injecté :**

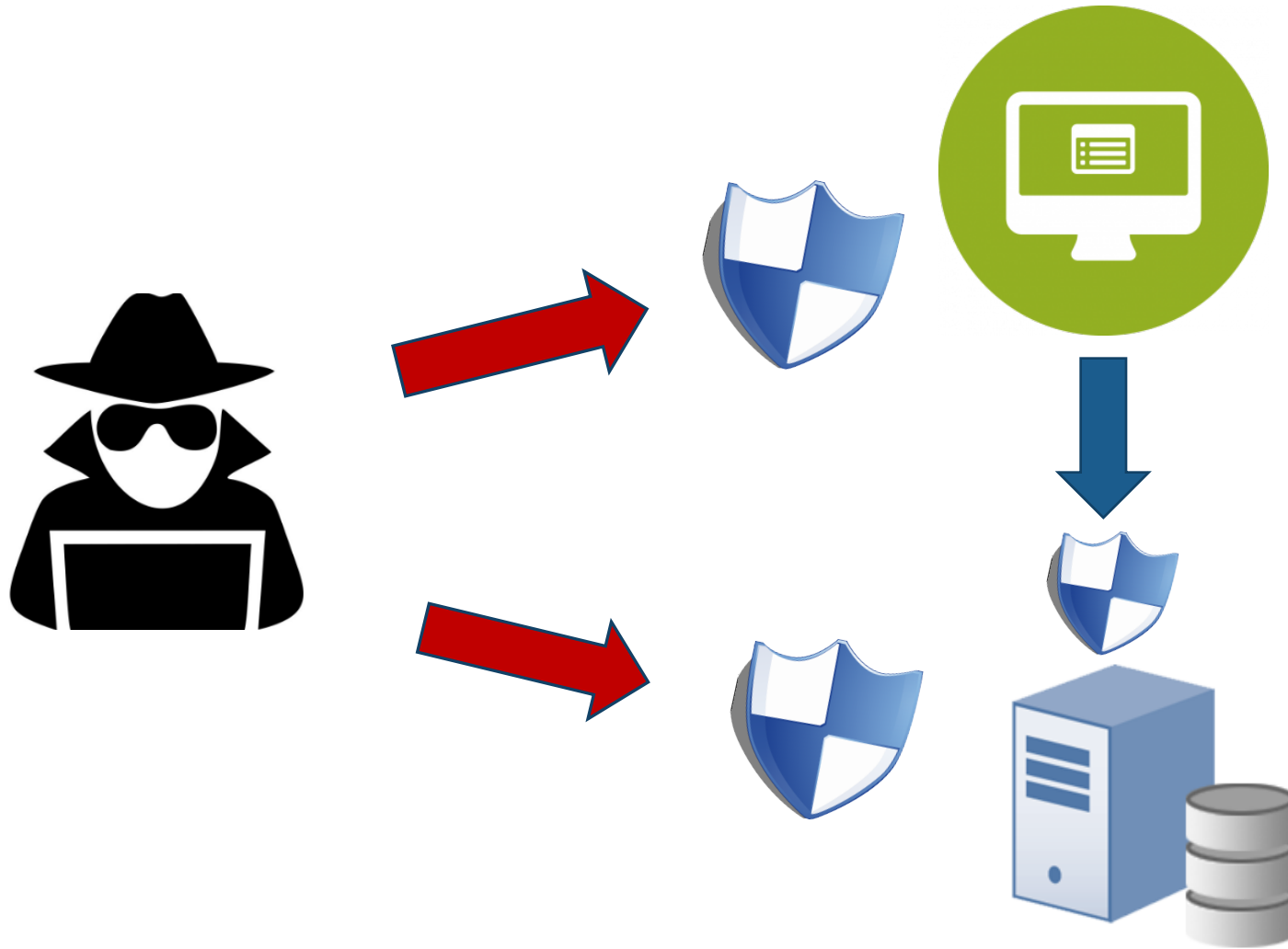
```
{
  "email" : { $qt : "" }
  "password" : { $qt : "" }
}
```

# La triche : NoSQL Injection

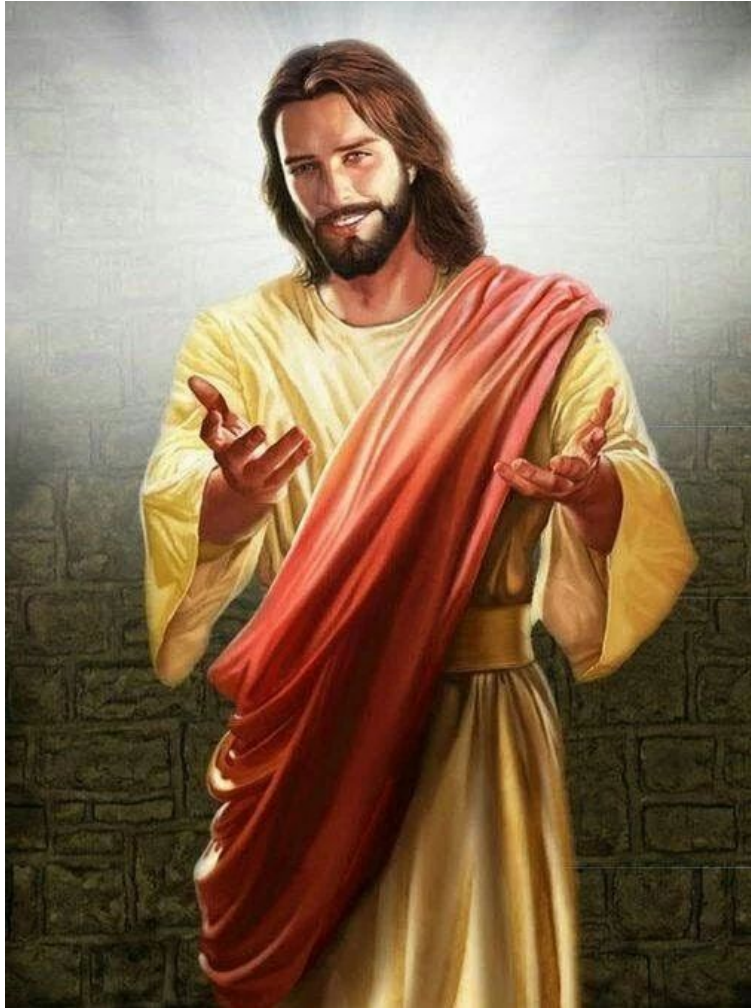
```
Var query = { $where: "this.login === '" + req.body.login + "'" }  
db.collection('users').find(query)
```

<b>\$ne</b>	<b>➔</b>	<b>!=</b>
<b>\$eq</b>	<b>➔</b>	<b>==</b>
<b>\$gt</b>	<b>➔</b>	<b>&gt;</b>
<b>\$lt</b>	<b>➔</b>	<b>&lt;</b>

# Problématique



# Solutions



# Bilan

1

Sensibiliser

2

Identifier  
&  
Protéger

3

Coût





Vous avez des questions ?