Projet client 16/03/2022

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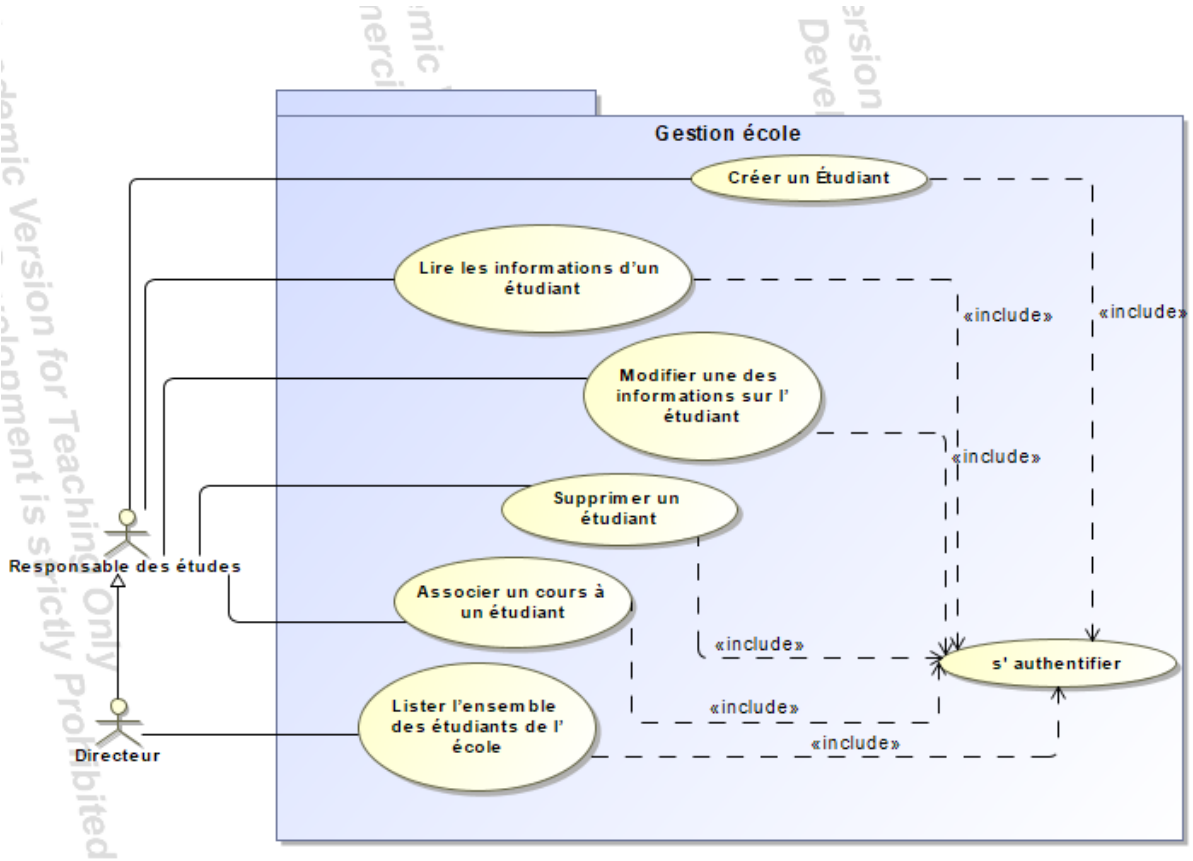
Diagrammes

Use Case



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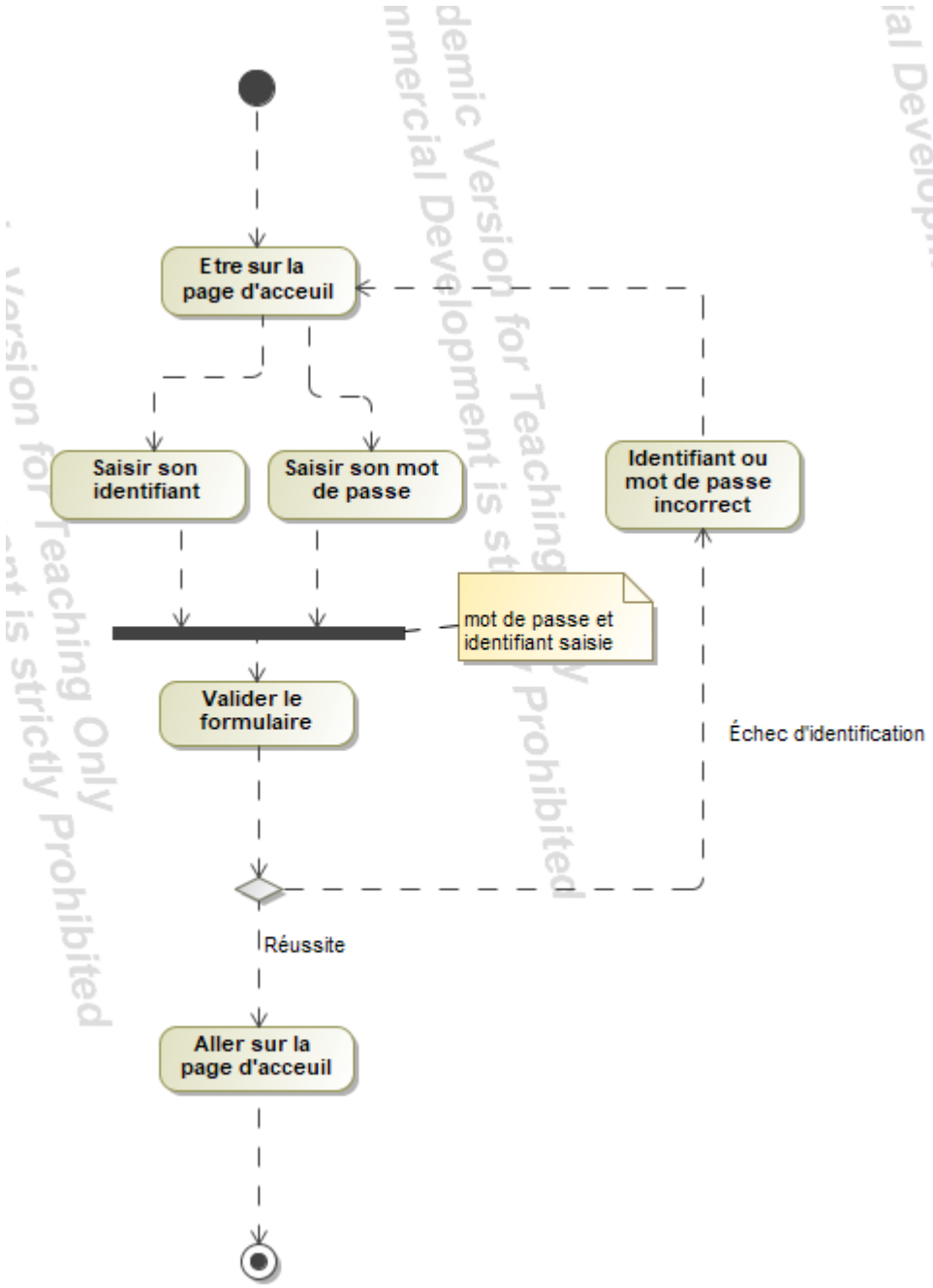
Activité

S’autentifier



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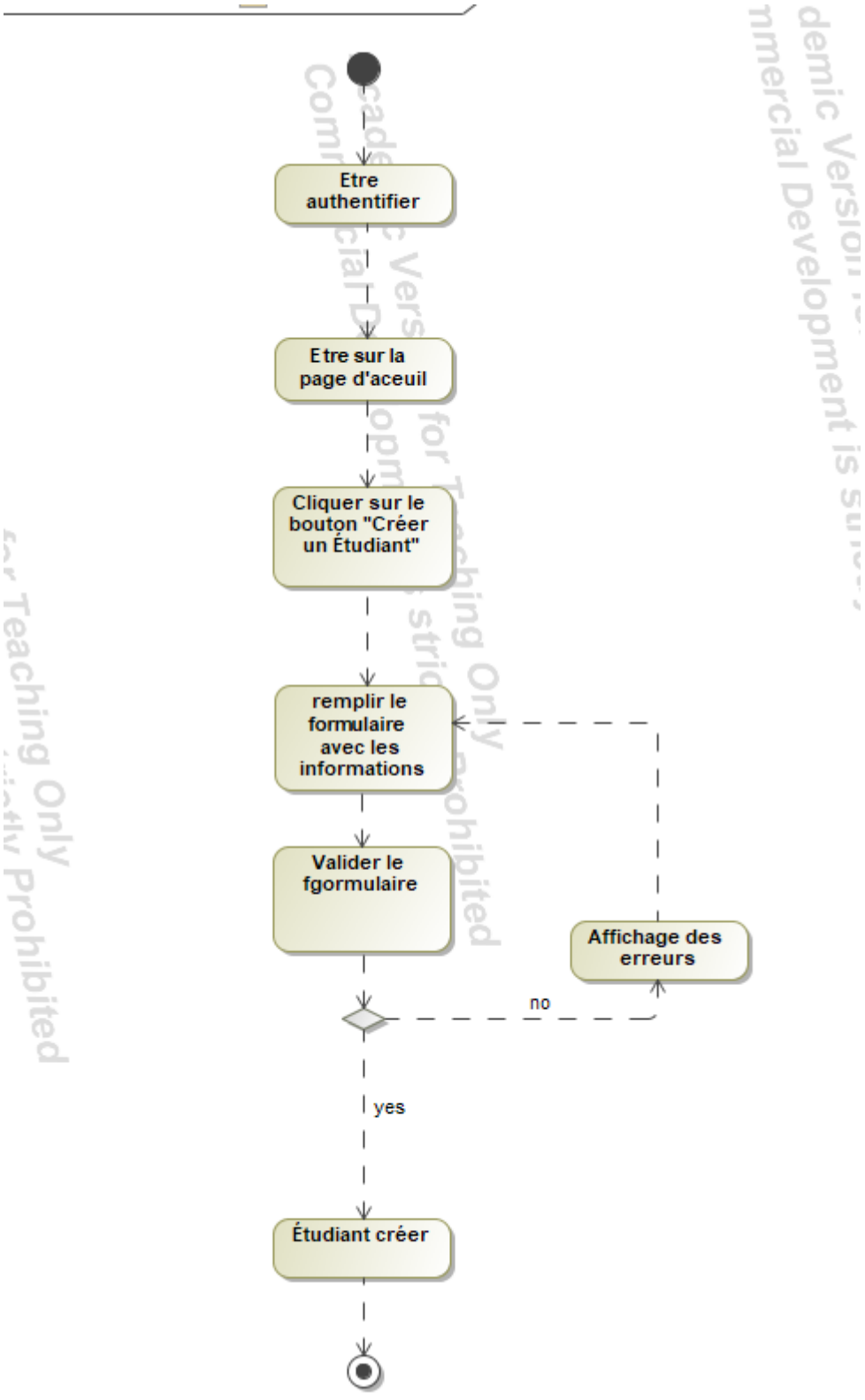
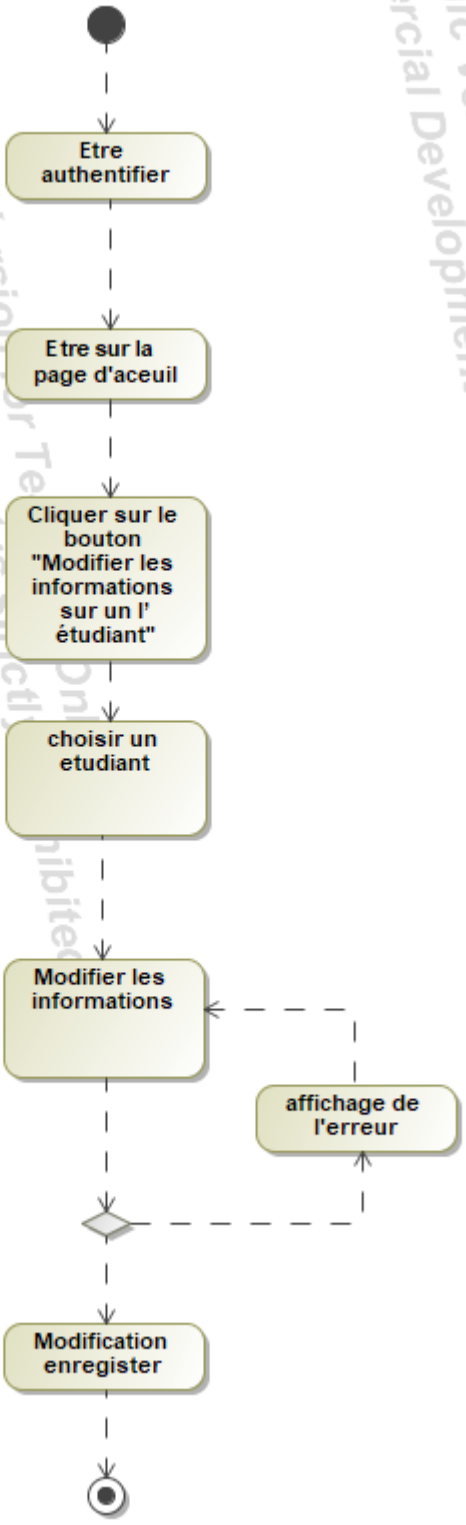
Créer un étudiant



Modifier un étudiant



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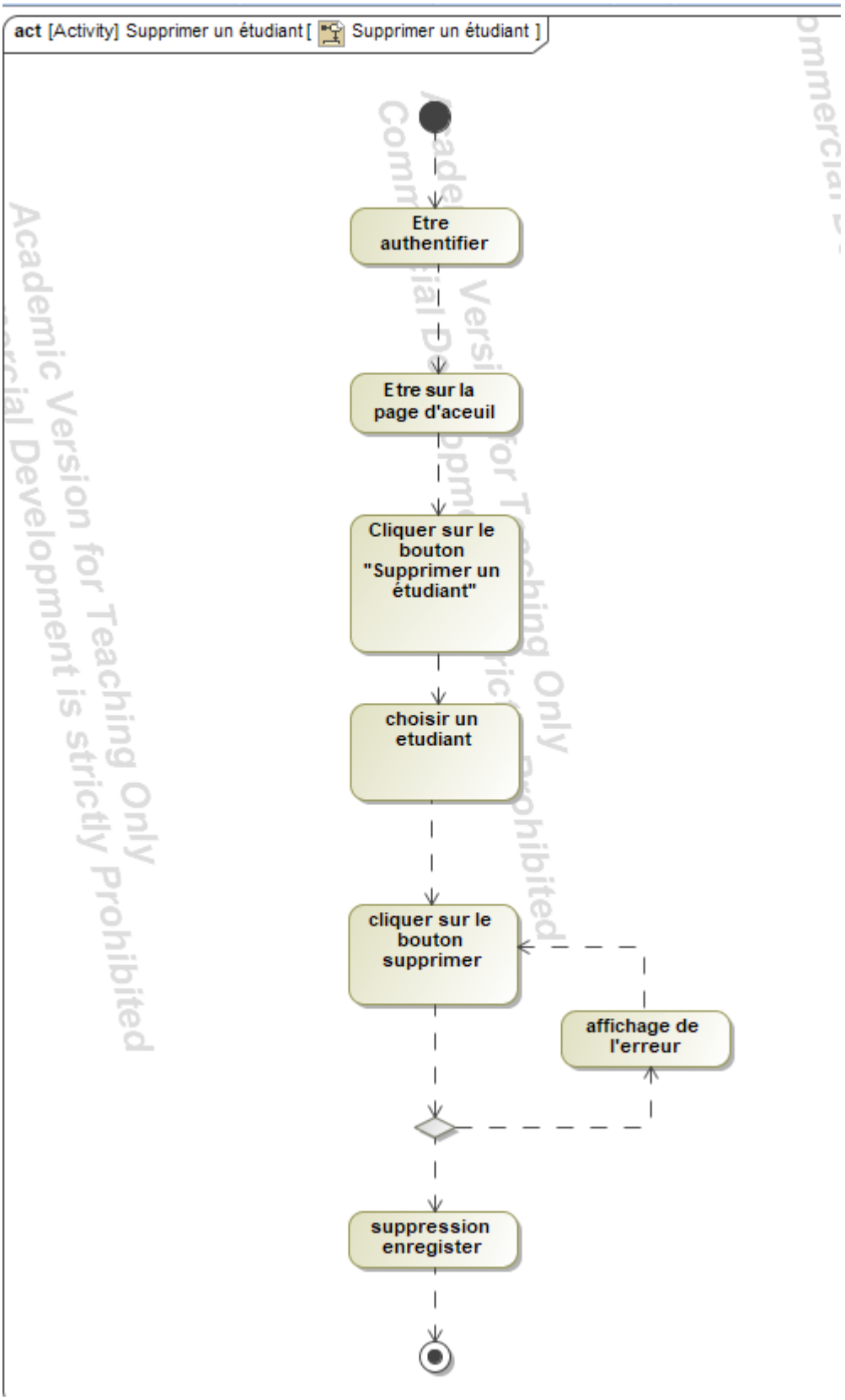
Supprimer un étudiant



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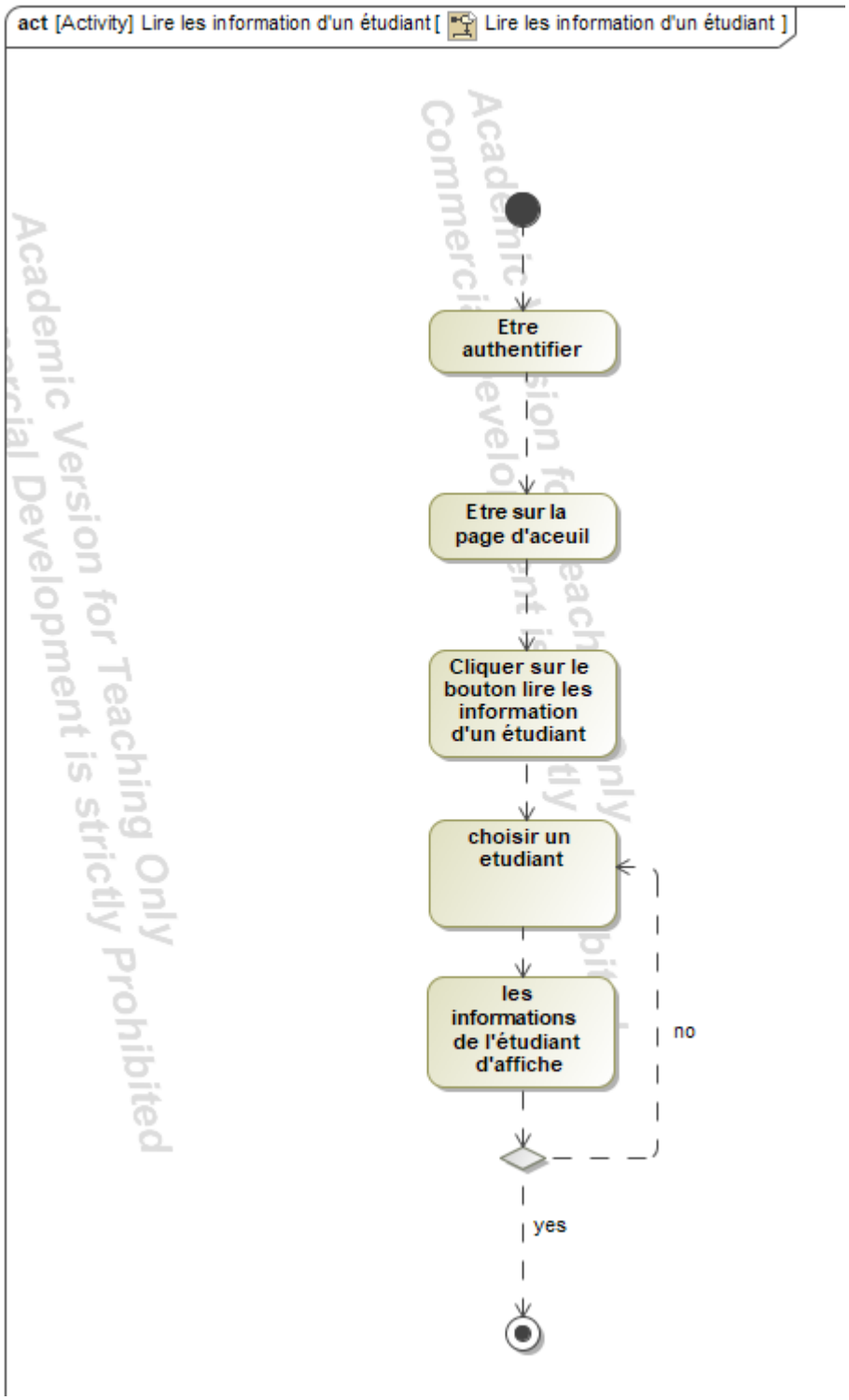
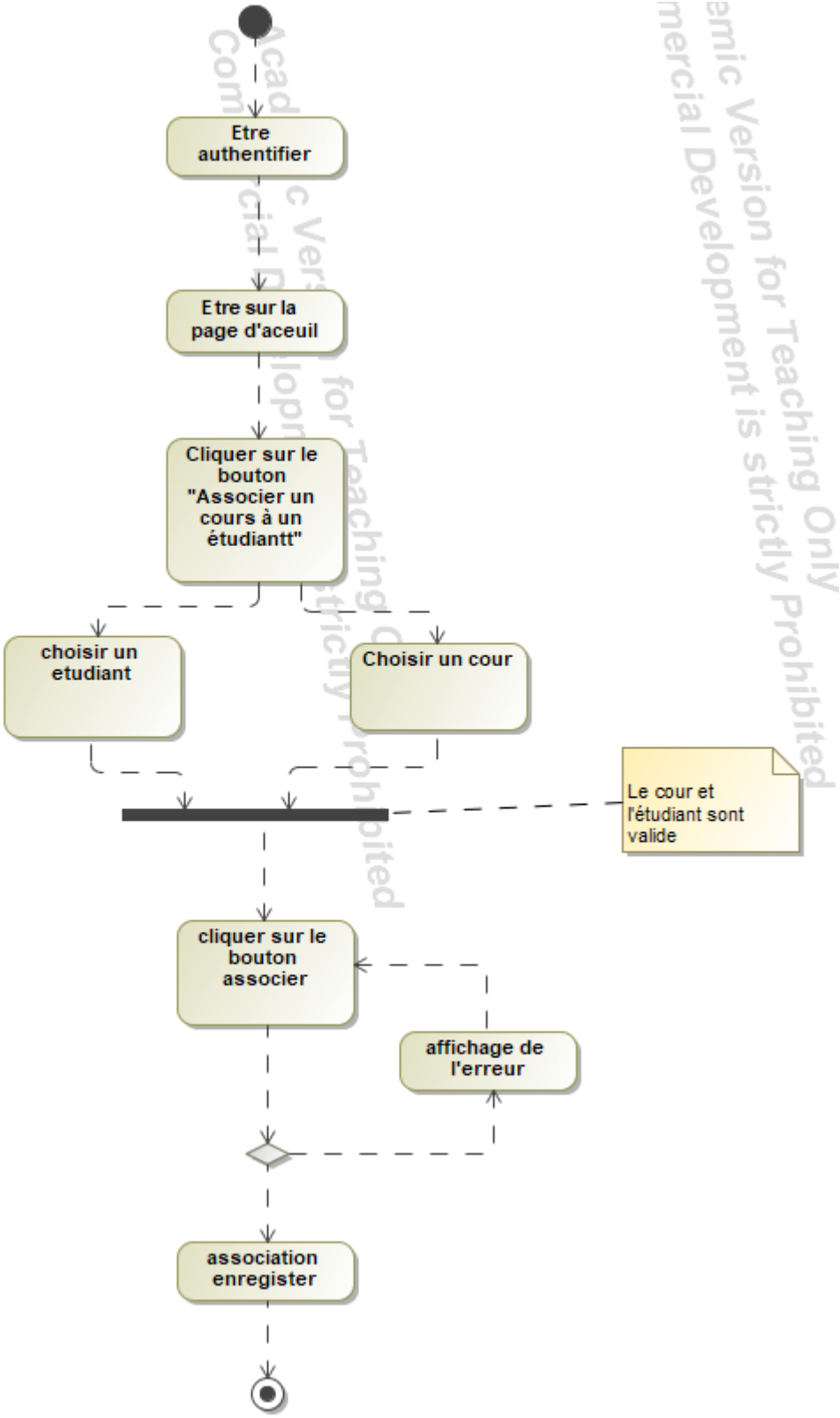
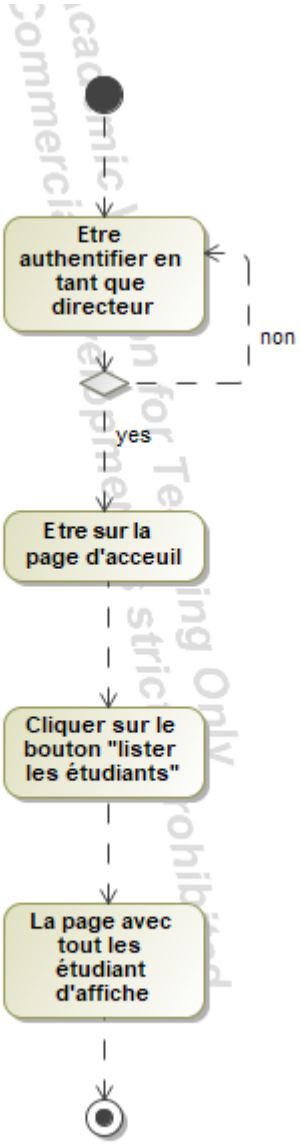
Lire les informations d’un étudiant



Associer un cour à un étudiant



Lister tous les étudiants



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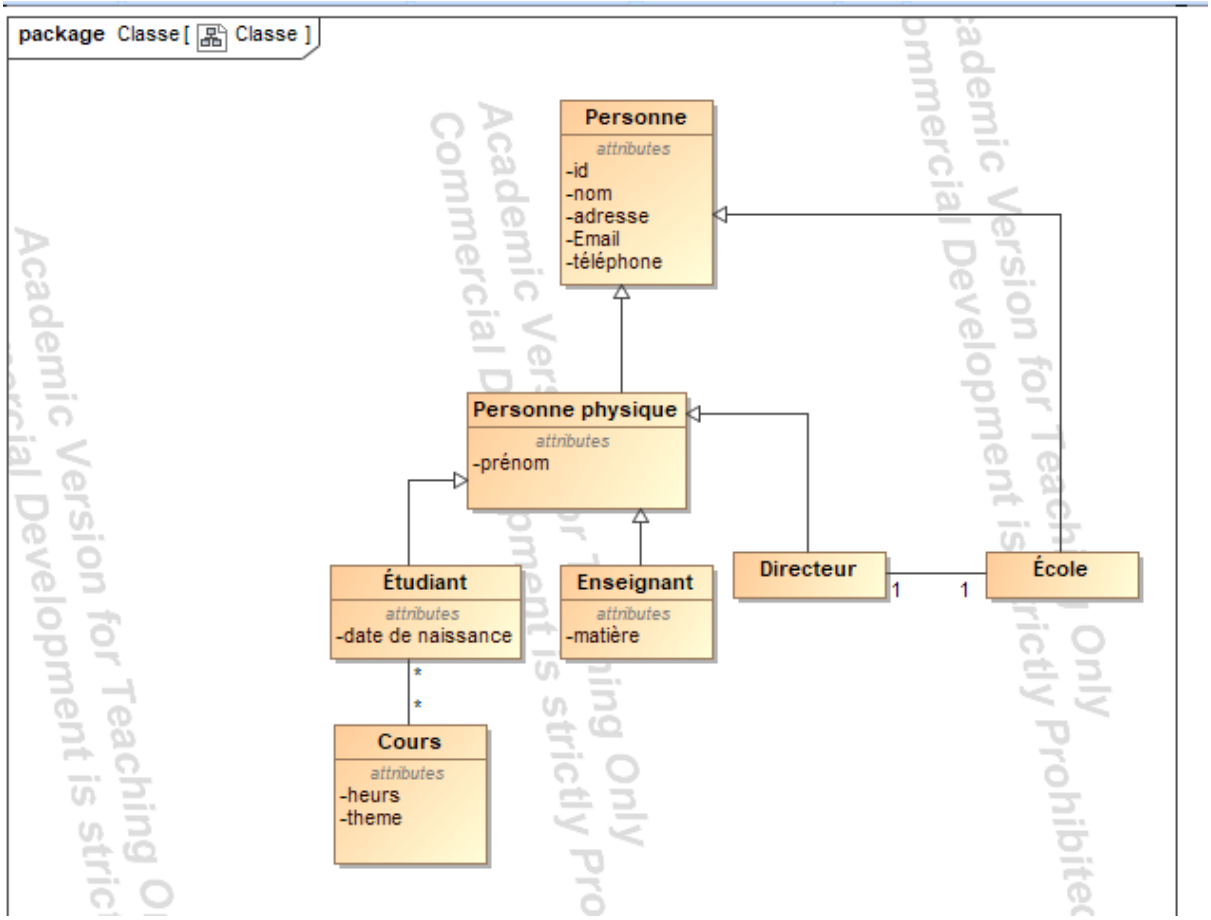
Classe



Séquence

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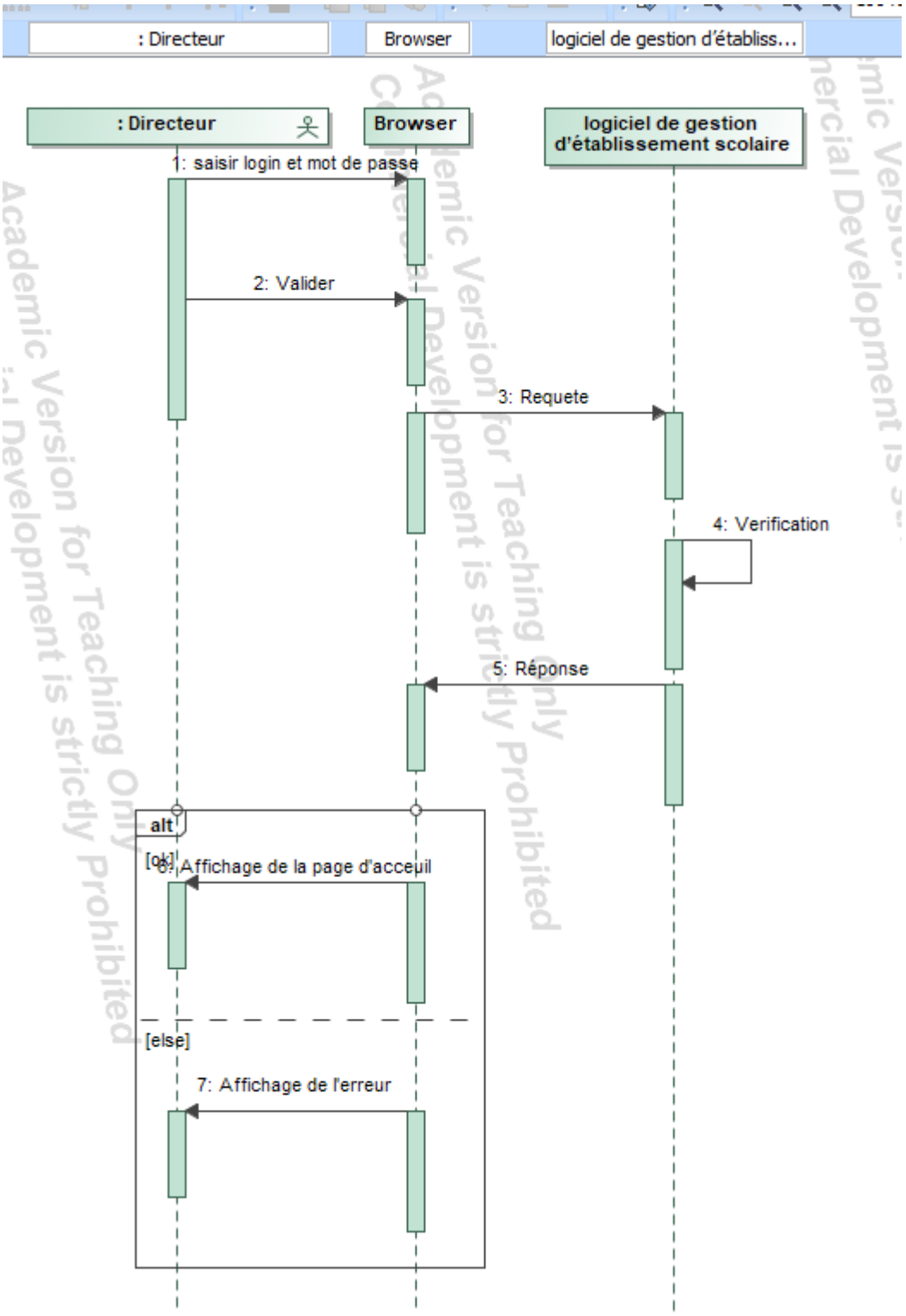
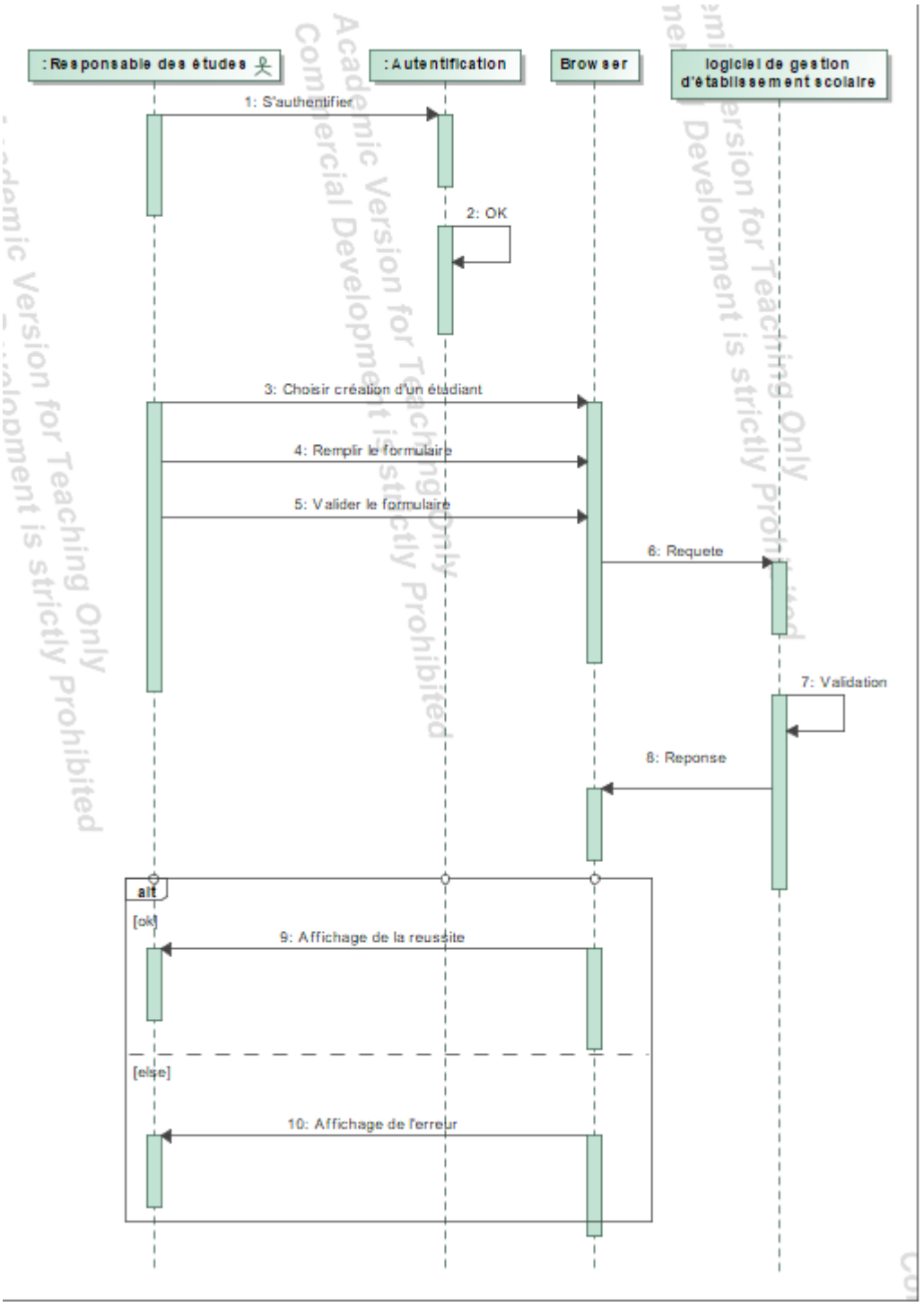
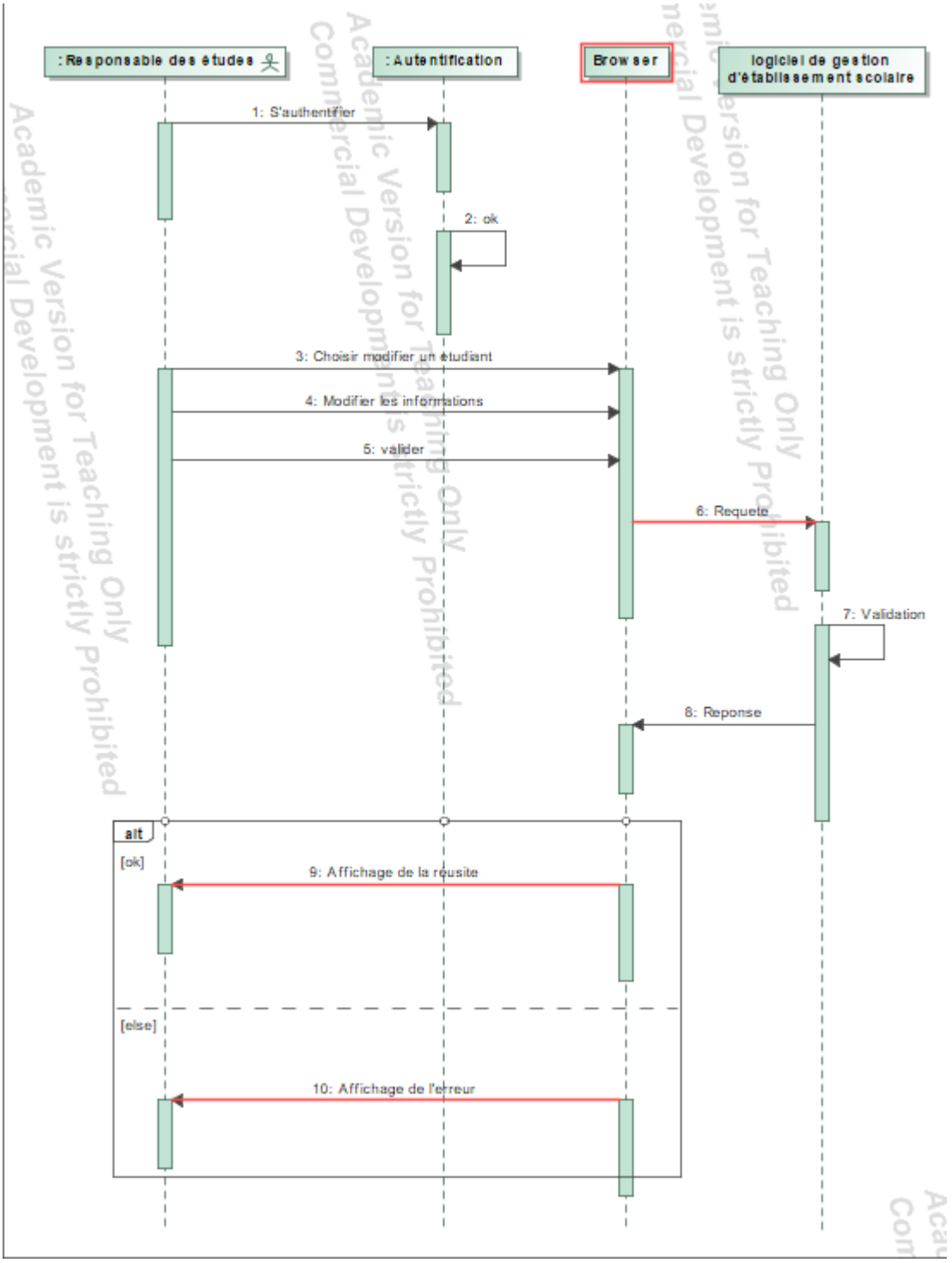
S’authentifier



Créer un étudiant



Modifier un étudiant


:Responsable des études
:Autentification
Browser
logiciel de gestion d'établissement scolaire
1: S'authentifier
2: ok
3: Choisir modifier un étudiant
4: Modifier les informations
5: valider
6: Requete
7: Validation
8: Reponse
alt
[ok]
9: Affichage de la réusite
[else]
10: Affichage de l'erreur

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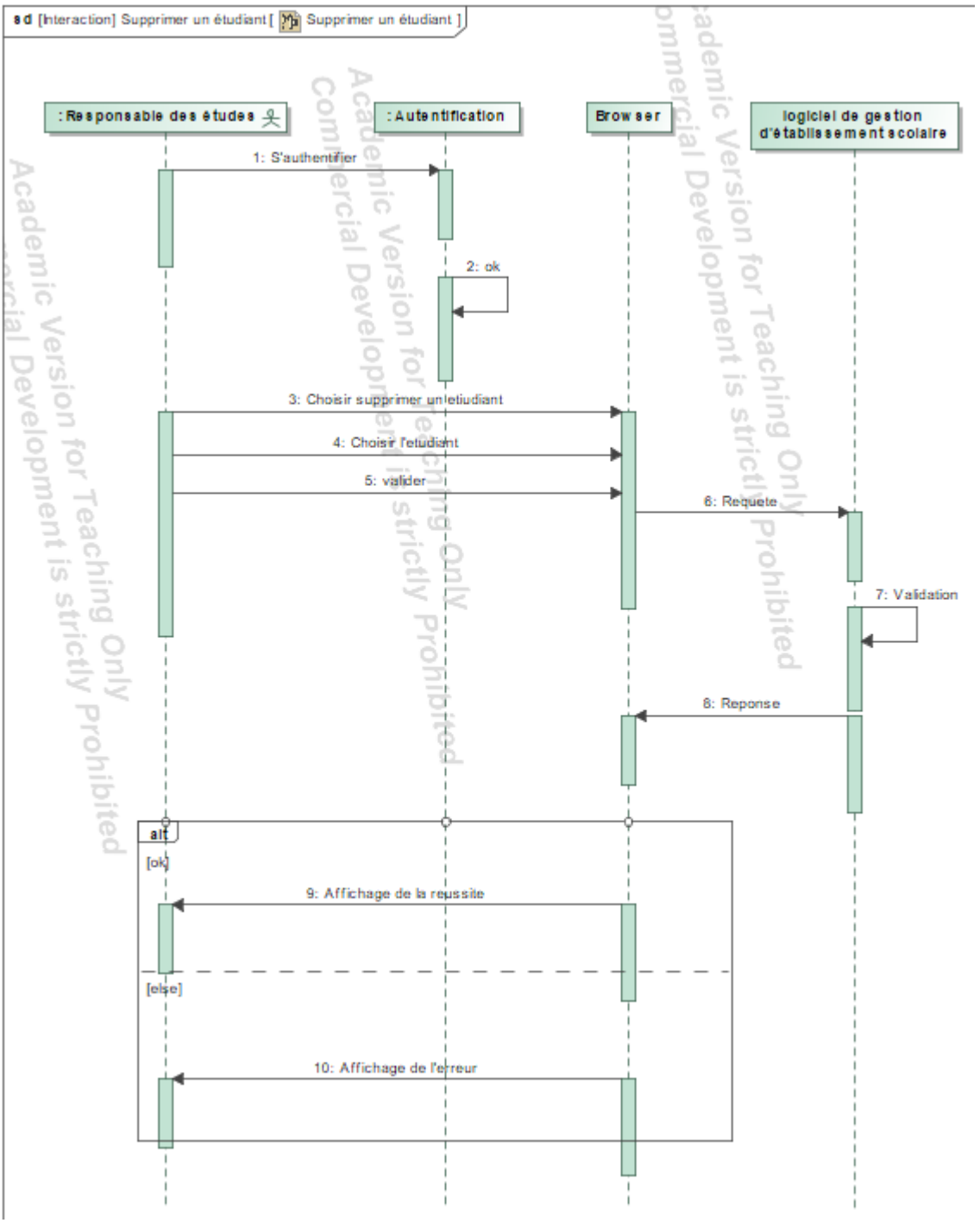
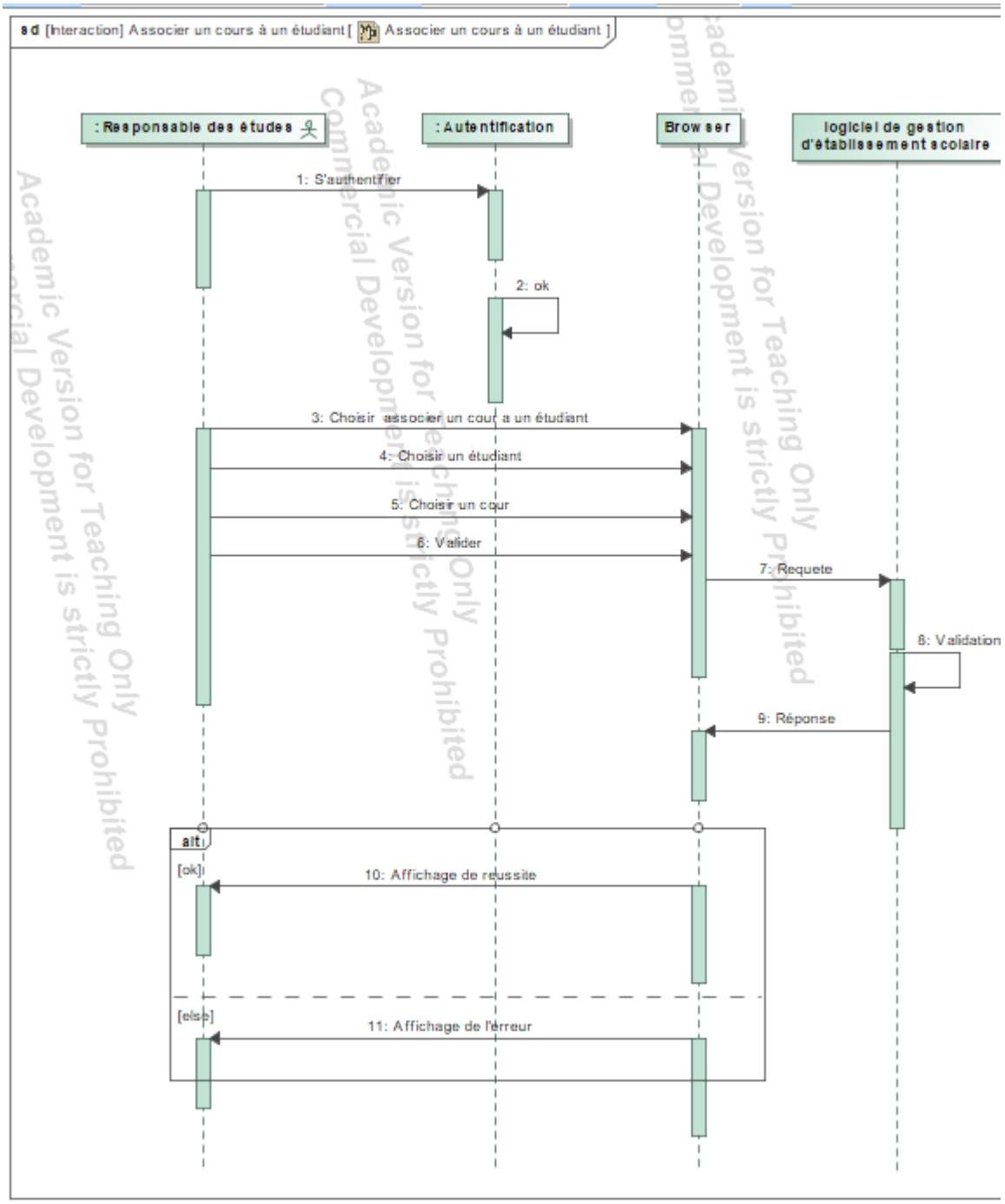
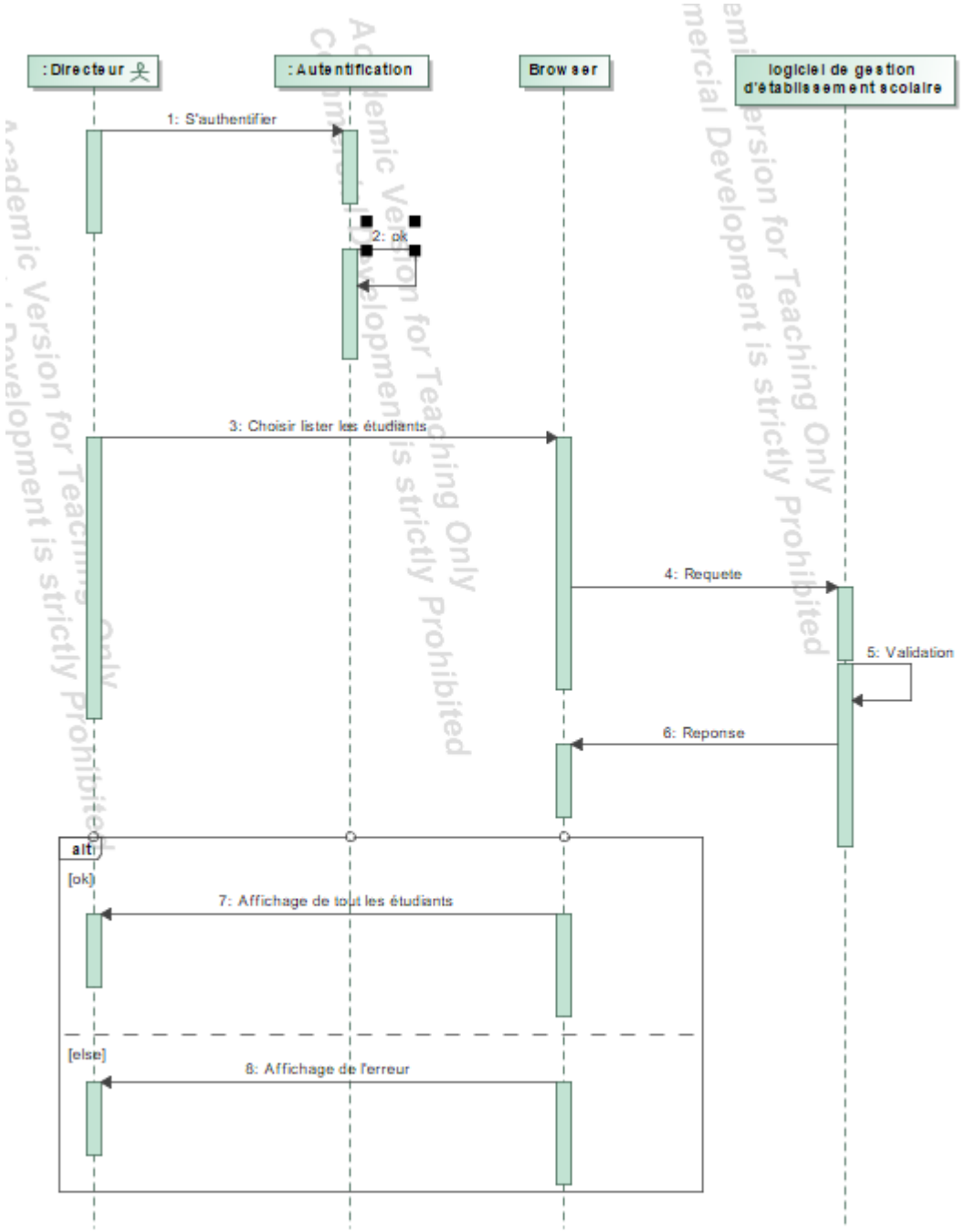
Supprimer un étudiant



Associer un cours à un étudiant



Lister les étudiants



Développement

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Technologies utilisés

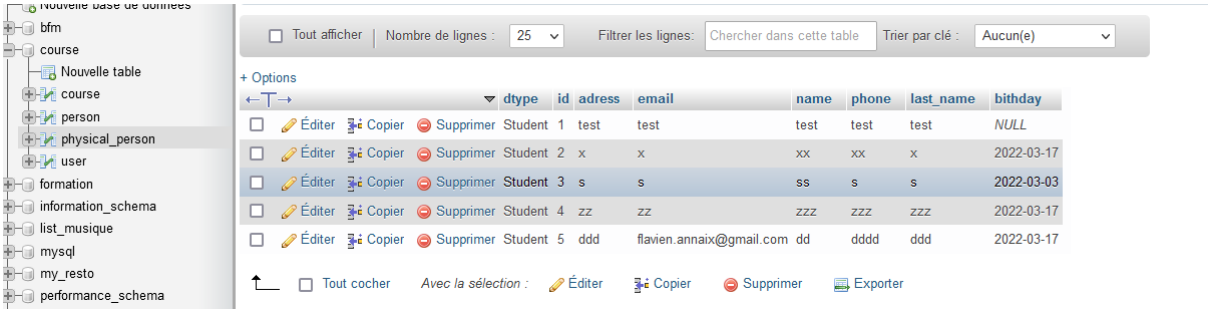
Back

Pour le back de l'application j'ai utilisé Spring Boot avec jacoco pour le code coverage et Junit5 pour les tests

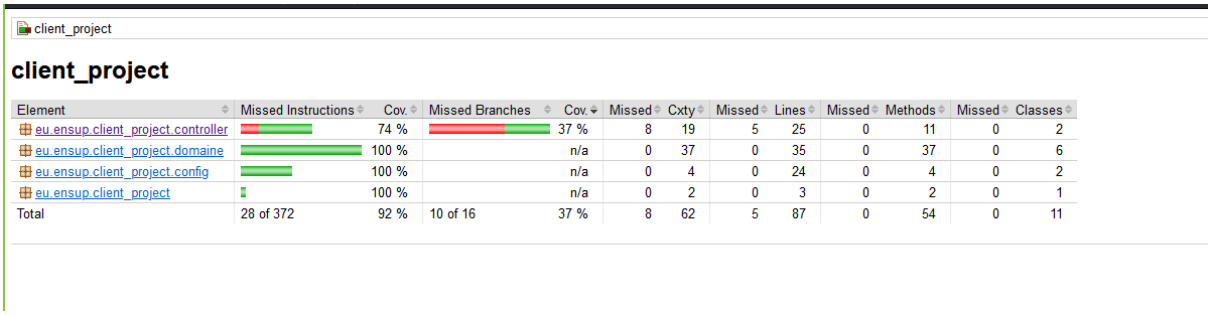
Front

Pour le Front j'ai utiliser le HTML5, CSS, BootStrap

Ma base de données avec des données



Résultat des tests



dans le repo github dans le dossier testCoverage il y a le rapport jacoco

Devops

Jenkins

NON TRAITÉ

Docker

Le dockerFile

```
FROM openjdk:15-jdk-alpine


LABEL MAINTENER="Flavien ANNAIX"


RUN apk update && \
    apk upgrade && \
    apk add git &&\
    apk add maven &&\
    apk add bash

RUN git clone https://github.com/Flav1-ann/course /course

WORKDIR /course

RUN mvn clean package -DskipTests=true

RUN cp target/*.jar app.jar

#RUN addgroup -S spring && adduser -S spring -G spring

EXPOSE 80

#USER spring:spring

ENTRYPOINT ["java","-jar","app.jar"]
```

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Docker Compose

m.tfvars | flav1-ann-course.2022-03-16.private-key.pem | docker-compose.yml

```yaml
version: '3.4'
services:
  server:
    image: flavlann/course
    restart: always
    depends_on:
      - db
    network_mode: host

  db:
    image: mysql
    command: --default-authentication-plugin=mysql_native_pass
    restart: always
    cap_add:
      - SYS_NICE
    environment:
      - MYSQL_USER=${MYSQL_USER}
      - MYSQL_PASSWORD=${MYSQL_PASSWORD}
      - MYSQL_DATABASE=${MYSQL_DATABASE}
      - MYSQL_ALLOW_EMPTY_PASSWORD=no
    ports:
      - 3306:3306
```

Ansible

playbook.yml

```yaml
---
- name: playbook
  hosts: webserver
  vars_files:
    - private_settings.yml
  environment:
    MYSQL_USER: 'spring'
    MYSQL_PASSWORD: '{{ MYSQL_PASSWORD }}'
    MYSQL_DATABASE: 'course'

  pre_tasks:
    - name: Install aptitude using apt
      apt: name=aptitude update_cache=yes force_apt_get=yes
      become: yes

    - name: Install required system packages
      apt: name={{ item }} update_cache=yes
      become: yes
      loop:
        [
            "apt-transport-https",
            "ca-certificates",
            "curl",
            "software-properties-common",
            "python3-pip",
            "python-apt",
            "virtualenv",
            "python-setuptools",
            "net-tools",
            "apache2"
        ]

    - name: Enable apache2
      service:
```

```yaml
    - name: Add Docker Repository
      become: yes
      apt_repository:
        repo: deb https://download.docker.com/linux/ubuntu bionic stable
        state: present

    - name: Update apt and install docker-ce and docker-compose
      become: yes
      apt: name={{ item }} update_cache=yes
      loop: [ "docker-ce","docker-compose" ]

    - name: Install Python Docker Module
      pip:
        name: ["docker","docker-compose==1.25.0"]

    - name: Copy to remote
      copy:
        src: ./docker_usr_config.sh
        dest: '{{ WORKING_DIR }}'
        mode: u=rxw,g=rw,o=r

    - name: Add user to docker group
      become: true
      shell:
        cmd: ./docker_usr_config.sh &
      args:
        chdir: '{{ WORKING_DIR }}'

tasks:
  - name: Copy to remote
    copy:
      src: ./docker-compose.yml
      dest: '{{ WORKING_DIR }}'

  - name: run docker-compose
    become: true
    community.docker.docker_compose:
      project_src: '{{ WORKING_DIR }}'
```

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Terraform

Voici le main mais tous les fichiers sont ici
https://github.com/Flav1-ann/course_deploy/tree/master/app et
https://github.com/Flav1-ann/course_deploy/tree/master/Modules

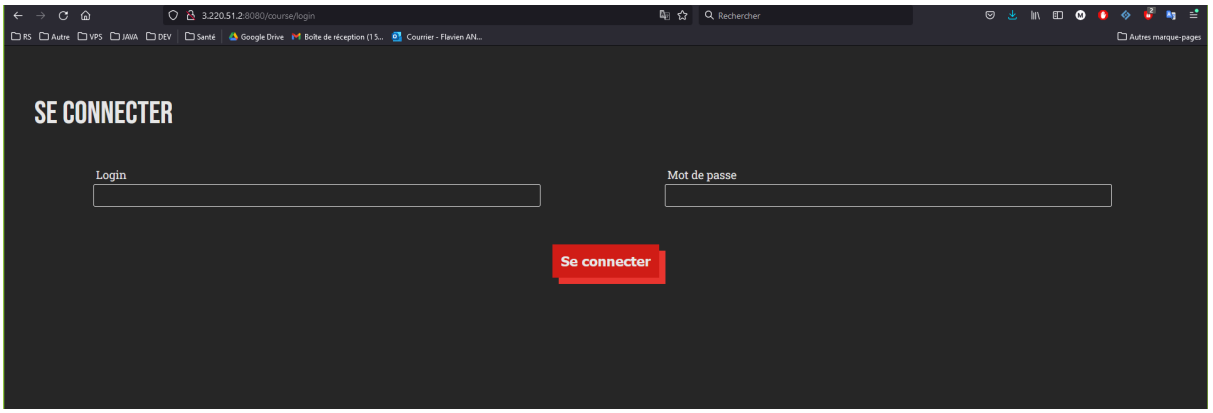
```
module "ec2" {
  source               = "../Modules/EC2"
  author_name          = var.author_name
  instance_type        = var.instance_type
  private_key_path     = var.private_key_path
  availability_zone    = var.ec2_avail_zone
  sg_name              = module.sg.out-sg-name
  public_ip            = module.eip.out_eip_ip
  main_directory       = var.main_dir
}

module "sg" {
  source    = "../Modules/SG"
  tag_name = var.author_name
}

module "eip" {
  source       = "../Modules/EIP"
  author_name = var.author_name
}

resource "aws_eip_association" "eip_association" {
  allocation_id = module.eip.out_eip_id
  instance_id    = module.ec2.out-ec2-id
}
```

Résultat sur le cloud AWS



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Liens

Docker image

https://hub.docker.com/repository/docker/flav1ann/course

Git hub

projet

https://github.com/Flav1-ann/course

Déploiement

https://github.com/Flav1-ann/course_deploy

AWS

http://3.220.51.2:8080/course/login