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Chapter 1

Use cases

1.1 Actors

The platform recognizes two type of actors in the first place, the unidentified user and the registered user.

1.1.1 Unidentified user

This actor has only registration and authentication rights on the platform.

1.1.2 Registered user

A register user has only one identity listed below.

Student

This actor has the rights to take exercises and be graded by the platform.

Teacher

This actor has the rights to supervise students such as providing exercises.

Administrator

This actor has the rights above and make sure things are running smoothly.

1.2 Unidentified user

1.2.1 Overview

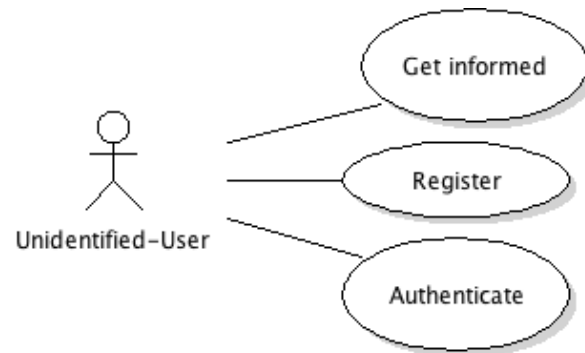


Figure 1.1: Unidentified user use cases : Overview

Get informed

An unidentified user gets informed about what the platform is.

Register

An unidentified user who wants to access to the platform has to register first.

Authenticate

An unidentified user authenticates to have access to the platform if the user is already registered.

1.3 Student

1.3.1 Overview

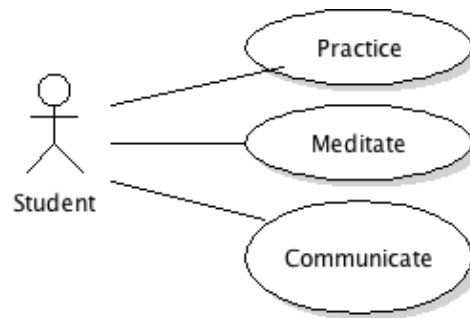


Figure 1.2: Student use cases : Overview

Learn

The student learns her lessons and do exercises.

Meditate

The students meditates on her performances and overcomes her weaknesses by doing suggested exercises.

Communicate

The students communicates with authenticate users in order to fix her issue and to improve herself.

1.3.2 Learn

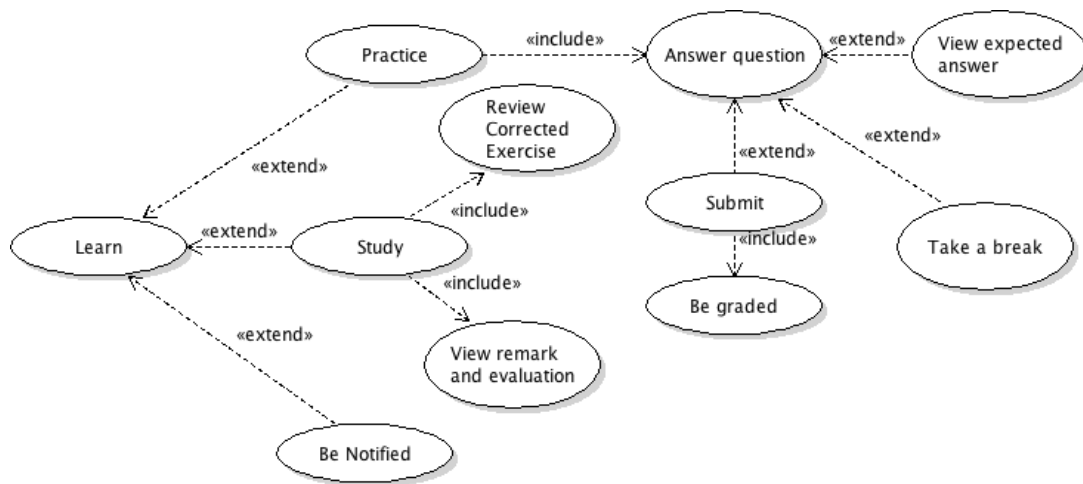


Figure 1.3: Student use cases : Learn

Be notified

The student is notified for new events concerning her learning process.

Study

The student studies by reviewing corrected exercises.

The student studies by reviewing teacher's evaluation and remarks.

Practice

The student practice her skills by answering questions.

Answer question

The student answers a set of questions.

View expected answer

The student has optionally access to the corrected version.

Take a break

The student takes a break and will resume the exercise later.

Submit

The student submit her answer form.

Be graded

The student is also graded by the platform *after* she submits her answer form.

1.3.3 Meditate

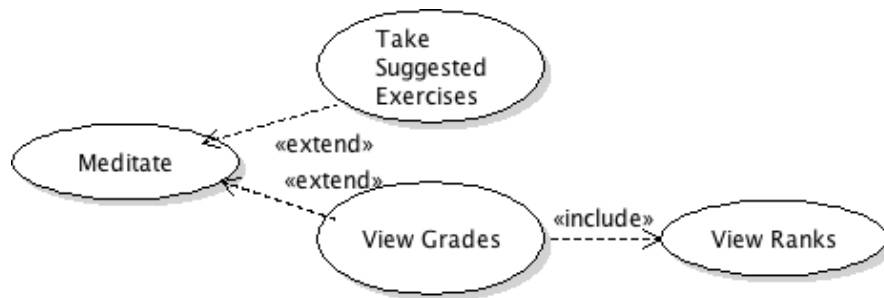


Figure 1.4: Student use cases : Meditate

Take suggested exercises

The student will be proposed exercises according to her grade.

View Grades

The student observe her grade for each exercises.

View Ranks

The student compares herself with other students.

1.4 Teacher

1.4.1 Overview

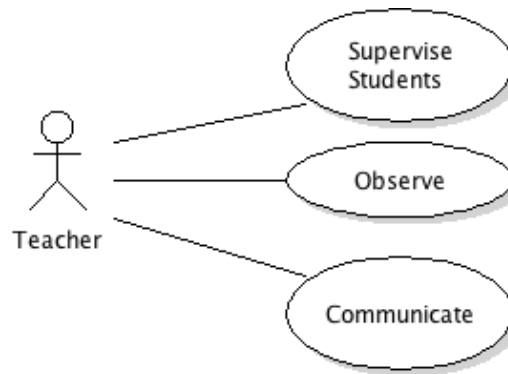


Figure 1.5: Teacher use cases : Overview

Supervise students

The teacher supervises students by providing exercises and grading them.

Observe

The teacher observes students's grade and remediate to help them.

Communicate

The students communicates with authenticate users in order to fix her issue and to help students.

1.4.2 Supervise students

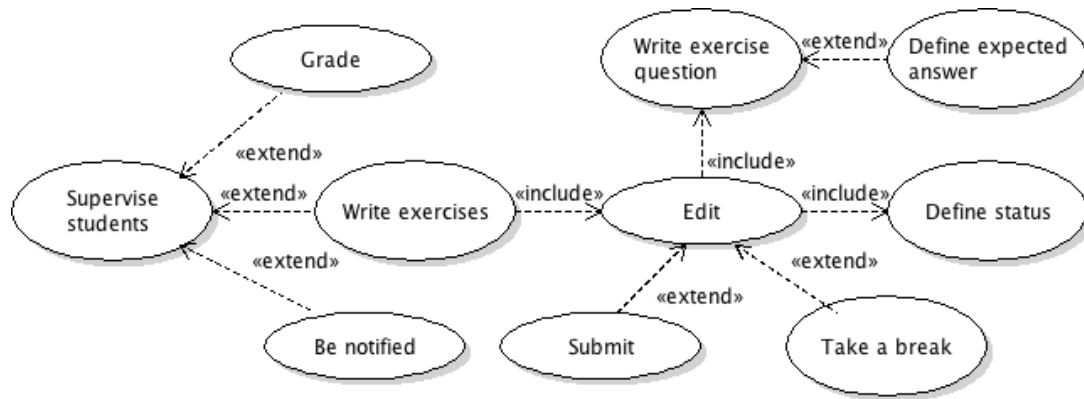


Figure 1.6: Teacher use cases : Supervise students

Grade

The teacher grades students answers for questions which have no fully-automatic grading system.

Be Notified

The teacher will be notified of events. For instance the teacher will be notified when one of her exercises is online.

Write exercises

The teacher writes exercise descriptions (statements, resources, ...).

Define expected answer

When the teacher writes exercises, he can optionally define an expected answer.

Edit

The teacher can edit any exercise at anytime.

Define Status

The teacher attaches a status to an exercise (date of release, condition of release, student concerned...)

Take a break

The teacher can resume the edition of her exercise later.

Submit

The teacher submits her exercise which can be viewed by student according to the exercise status defined by the teacher.

1.4.3 Observe

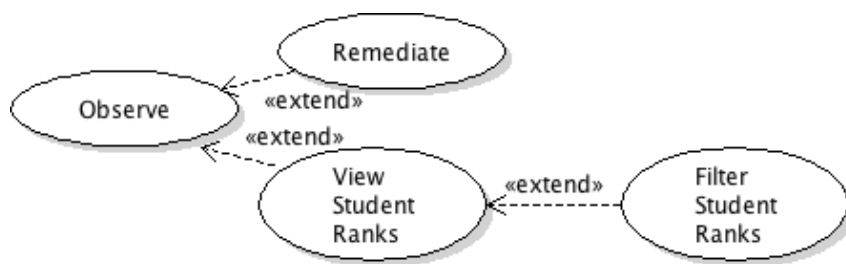


Figure 1.7: Teacher use cases : Observe

View students ranks

The teacher observes all the grades of students who took his exercises.

Filter students ranks

The teacher filters the grades according to some criteria. The criteria can be the identifier of a group or the year for instance.

Remediate

The teacher can provide exercises for a group of students in trouble with some specific subject of the course according to their grades.

1.5 Administrator

1.5.1 Overview

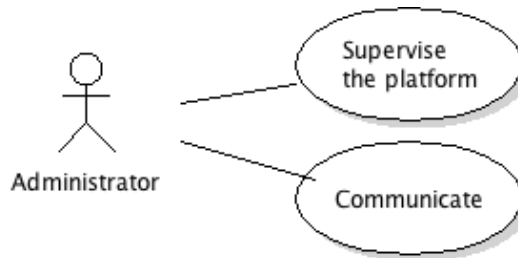


Figure 1.8: Administrator use cases : Overview

Supervise the platform

The administrator supervises the platform in order to ensure the platform operates smoothly.

Communicate

The administrator communicates with authenticate users in order to fix their issue.

1.5.2 Supervise the platform

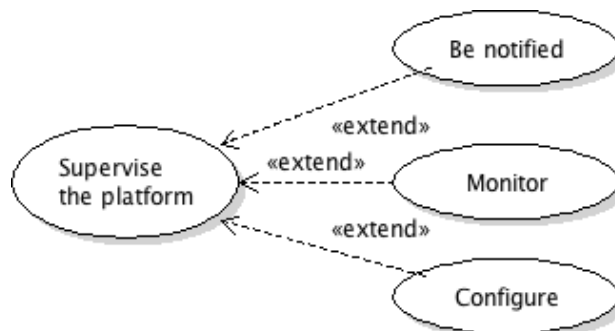


Figure 1.9: Administrator use cases : Supervise the platform

Be notified

The administrator will be notified by events such as a critical issue.

Monitor

The administrator inspects the log in real time.

Configure

The administrator configures the platform.

1.6 Common registered user

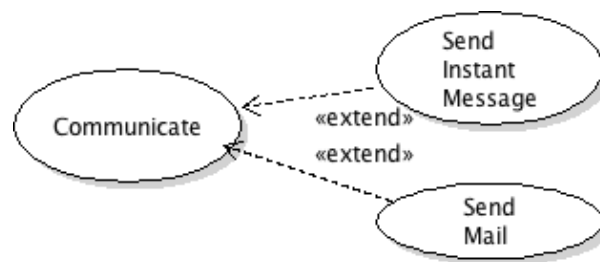


Figure 1.10: Registered user use cases : Communicate

Communicate

Identified user communicate between them through various message system provide by the platform.

Send Mail

Identified user communicate by mail exchange.

Send Instant Message

Identified user communicate by instant message exchange.

Chapter 2

Packages

2.1 Overview

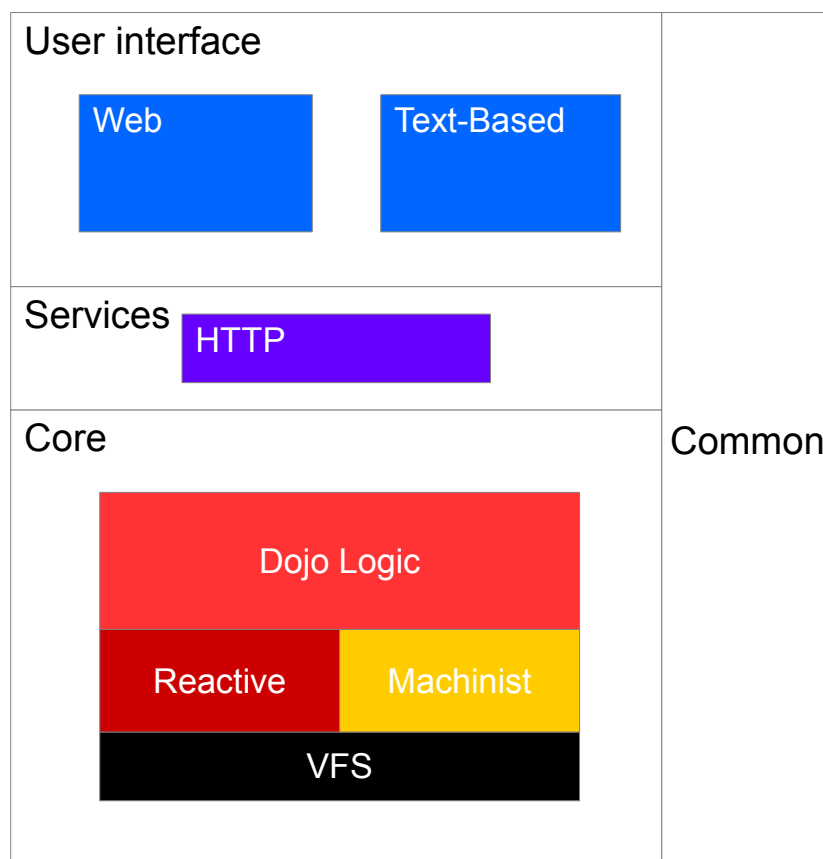


Figure 2.1: Diagram package : Overview

2.1.1 User Interface

This package provides every user interface components.

Web

This package contains the web user interface.

Text-based

This package contains the text-based user interface.

This interface interacts with unix-like batch tools.

2.1.2 HTTP

This package provides the web services which allow user interfaces to communicate with the core.

2.1.3 Core

This package provides the core features of the system i-e. the dojo logic and the machinist to make it works.

Dojo Logic

This package provides the business logic (online teaching system).

Machinist

This package provides modules which manage sandboxed environment.

Reactive

This package provides modules for data update through dependencies.

VFS

This package provides modules for managing the sources.

2.1.4 Common

This package provides utilities useful for every layers of the system.

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