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Chapter 1

Use case

1.1 Free-user

1.1.1 General Use Case
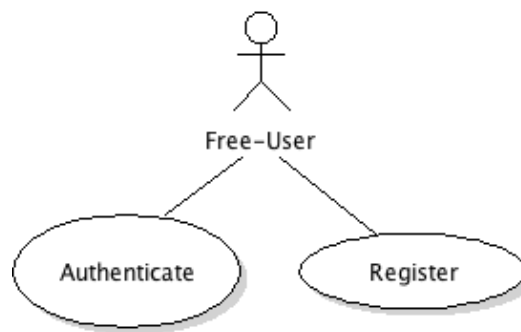
Figure 1.1: Free-User Use Case : Overview

A free user is a user non identified by the platform. He has the following features :

1.1.2 Register

Register a free-user to have access to the different features.

1.1.3 Authenticate

Identify free-user and if registered give him access to the different features.

1.2 Student

1.2.1 General Use Case

Figure 1.2: Student Use Case : Overview

A user identify as a student has three major action which are Practise, Meditate and Communicate.

1.2.2 Practise

Figure 1.3: Student Use Case : Practise

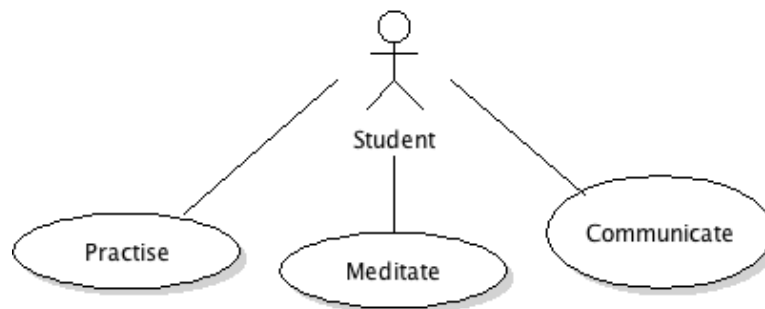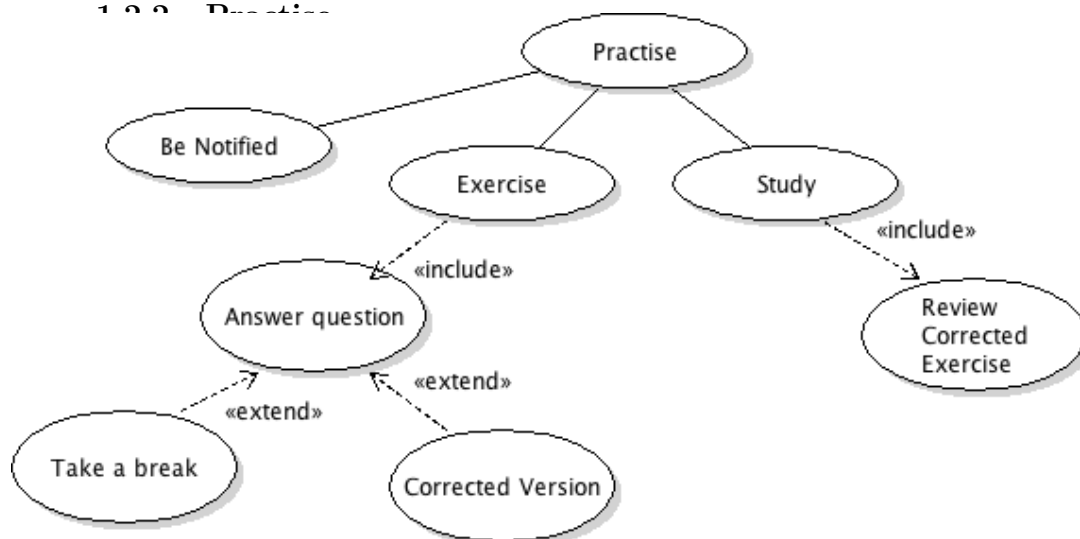**Be notified**

The student will be notified when he/she has new exercises to do, or to finish.

Exercise

The student can exercises himself by doing exercises written by the teacher.

Answer Question

The student will answer question such as MCQ (Multiple Choice Question)

Take a break

He/she can take a break and resume the exercise later.

Corrected Version

A corrected version of the question will be available if the teacher has checked the option.

Study

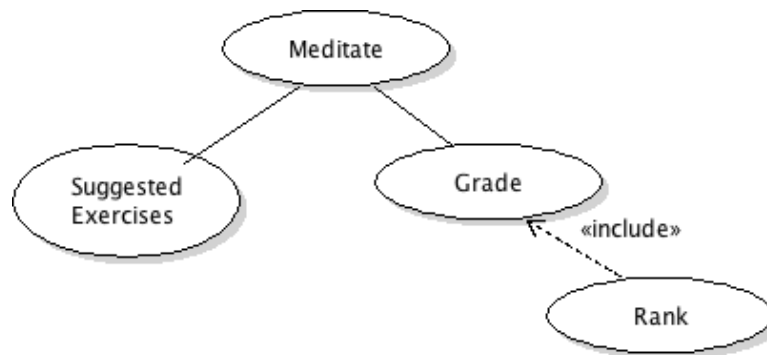The student can study by reviewing corrected exercises.

1.2.3   Meditate

Figure 1.4: Student Use Case : Meditate

Suggested Exercises

The platform will provide exercises according to the student grade on each exercises.

Grade

Student can see their grade for each exercises.

Rank

Student can compare himself with other student.
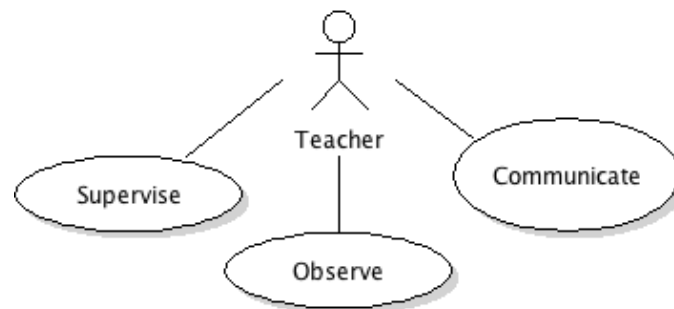
1.3 Teacher

1.3.1 General Use Case

Figure 1.5: Teacher Use Case : Overview

Main Features for the teacher are Supervise, Observe, Communicate

1.3.2 Supervise

Be Notified

The teacher will be notified when his exercises are online.
He also is notified when he has manual correction to do.

Write exercises

The teacher supervises his students by writing exercises.

Write Corrected Version

When a teacher writes exercises he needs to write a corrected version for automatic correction.

Edit

The exercise he writes can be edited at anytime.

Define Status

The exercise will have status, teacher have to define status such as date, deadline, priority.
Release condition can also be defined. For instance, every student who fail the exercise 1.4 will be notified this exercise.
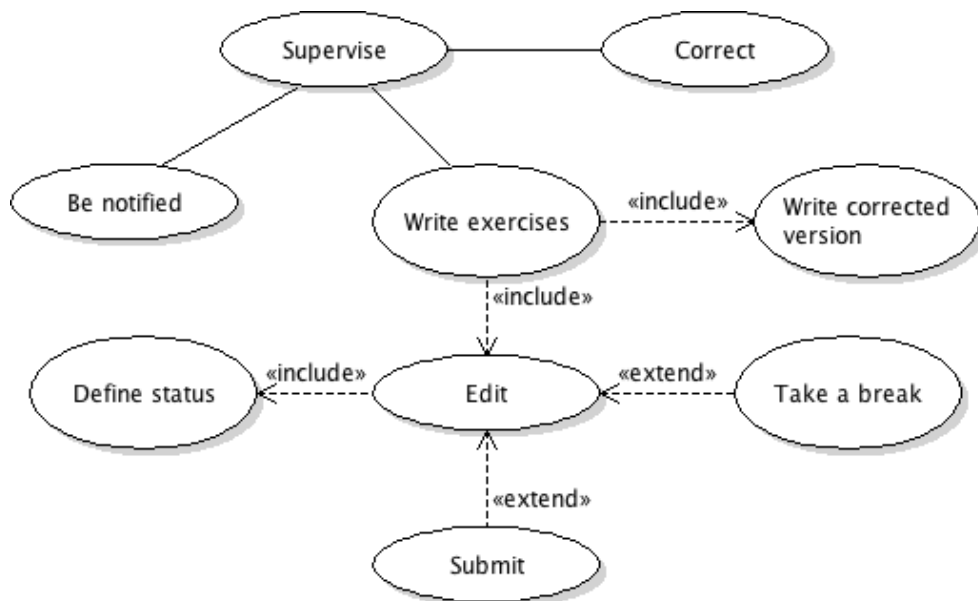
Figure 1.6: Teacher Use Case : Supervise

Take a break

Teacher can take a break about writing his exercise, to resume it later.

Submit

The teacher submit his exercise which can be viewed by student according to status definition by the teacher.

Correct

The teacher has to correct questions on which he has not define an answer.
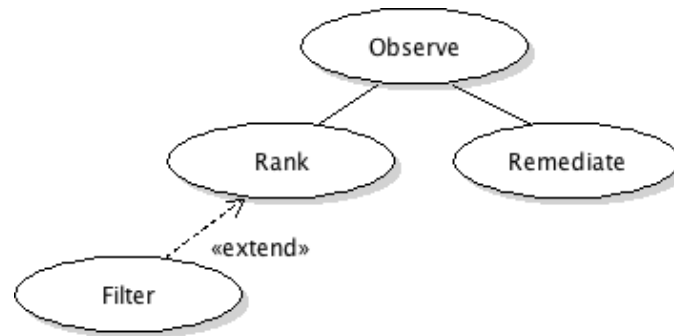
1.3.3 Observe

Figure 1.7: Teacher Use Case : Observe

Rank

The teacher can see all the grade of students who took his exercises.

Filter

He can filter the grade according to the group, rising order, the one who have more or less than a mark.

Remediate

Then the teacher can provide exercises for a group of students in difficulties according to their grade.

1.4 Administrator
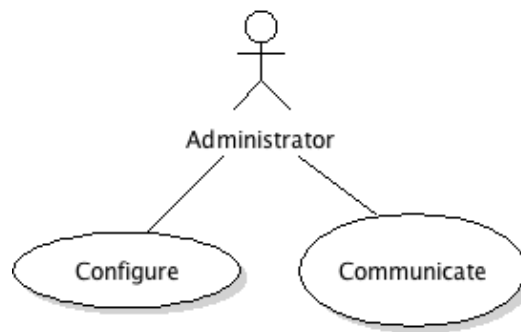
1.4.1 General Use Case

Figure 1.8: Administrator Use Case : Overview

1.4.2 Configure

The administrator task is to configure the platform.
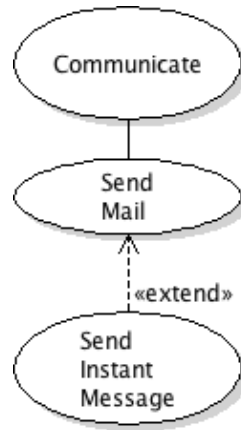
1.5 Common registered user

Figure 1.9: Registered user Use Case : Communicate

1.5.1 Communicate

Registered user can communicate each other.

Send Mail

Communication provide by mail exchange.

Send Instant Message

Communication provide by instant message exchange.

Chapter 2

Dynamic analysis

Chapter 3

Static analysis