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Report description

> The deliverable consists of separate files; you can add at most three files on Moodle:
>
> - the report : named name1_name2.pdf
> - the script for populating the database + the script containing the different functions/queries. The report must have between 5 and 10 pages. It includes an introduction, a short description of the project subject, some functions/queries for the most important issues of the project, a discussion of the encountered problems/difficulties, and a conclusion. The report should not explain your code in details, let alone include portions of your code: good code should be well self-commented. The code must be properly indented and commented. It must comply with the standard naming rules for variables and functions.

- ☐ The report must have between 5 and 10 pages.
- ☐ It includes an introduction
- ☐ short description of the project subject
- ☐ some functions/queries for the most important issues of the project
- ☐ a discussion of the encountered problems/difficulties
- ☐ conclusion

Introduction - short description of project subject

The goal of this project is to develop an electronic document management system to archive all the internship and apprenticeship reports for EFREI.

Today, students must email their reports to tutors (businesses and academics). Apprentice students submit their reports on Moodle. Students can submit intermediate documents but only the final report is saved.

In the solution that we propose, the system allows an easy search of documents, and makes them accessible. This research can be done by keyword, by category, title, etc. It allows the report to be submitted before a specified deadline. This report only becomes readable for students and teachers after validation by the tutors. In addition, only people with access to MyEfrei can access the report after validation.

Naming conventions

Variables

Naming	Meaning	Example
Starts with `l`	Local variable	`ln_id_user`
Starts with `p`	Parameter variable	`pn_id_user`
Second char is `n`	Variable of type number	`ln_id_user`
Second char is `v`	Variable of type varchar	`pv_keyword`

| Naming	Meaning	Example
Second char is c	Explicit cursor	`lc_reports`
Second char is d	Variable of type date	`ld_deadline_report`
Second char is e	Declared exception	`le_no_record_found`

Objects

Naming	Meaning	Example
Starts with tab	Table	`tab_student`
Starts with adt	Audit table	`adt_keyword`
Starts with rel	Relation table	`rel_performs`
Starts with fun	Function	`fun_is_allowed`
Starts with prc	Procedure	`prc_report_consult`
Starts with trg	Trigger	`trg_report_validation`

Error Management

Error codes	Description
-20002	The report is late, the deadline is over.
-20003	The hired date can not be in the future.
-20004	Keyword not found
-20006	Inconsistency between the promotion of the student and his group
-20005	Expected at least one keyword for this report.
-20011	Confidentiality settings disable this action.
-20012	The report has not been validated, action aborted.
-20010	No records were found for either the report id or student id, or both.
-20013	User must be a user of My Efrei.

E/R diagram
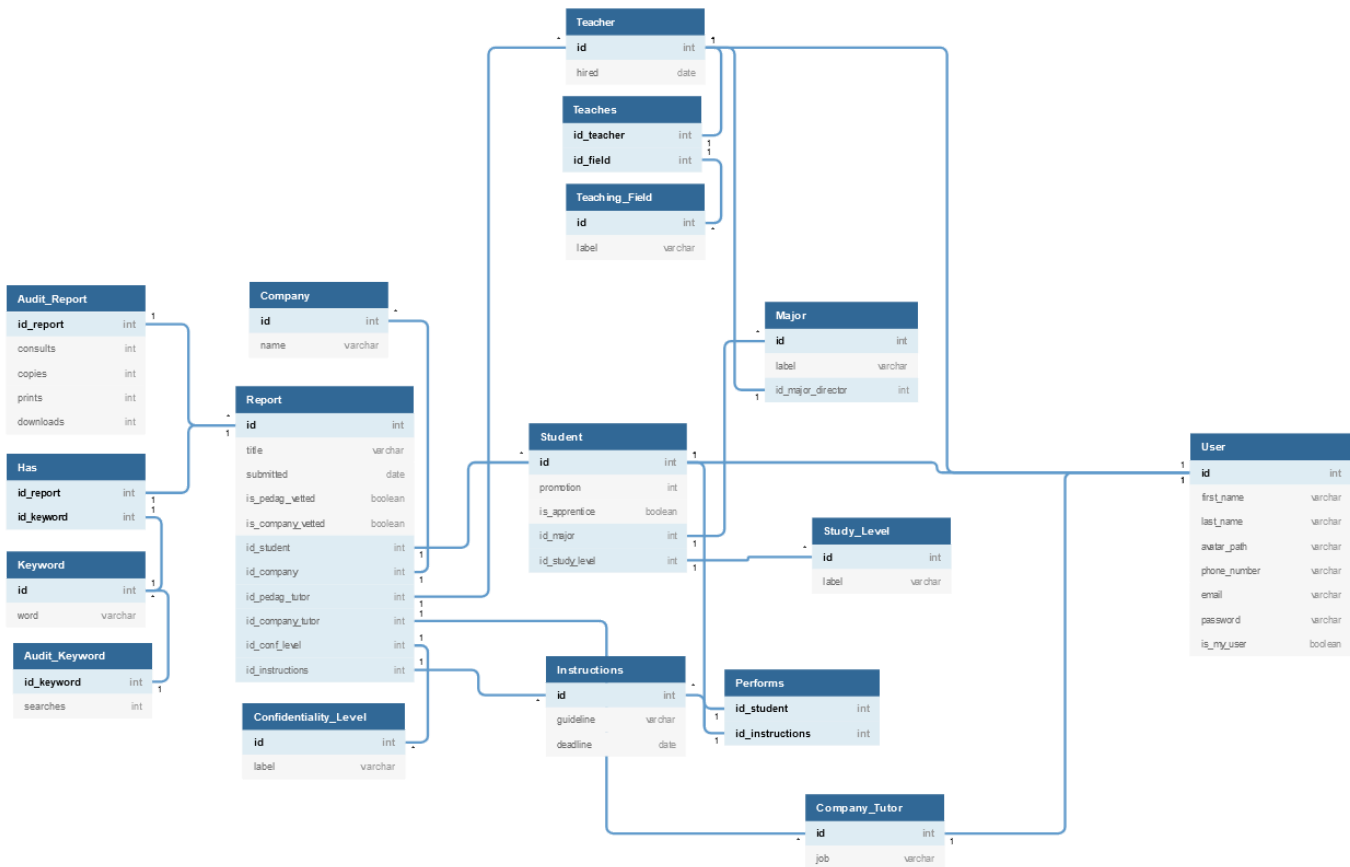
Implementation of important issues

Research

Easy report search by :

Keyword category (internship or apprentices) Student name Title Company Tutor Pedagogic tutor Instructions ....

Check data consistency

To ensure the consistency of the data, we have undertaken to set up controls at the time of data insertion.

- User emails

Using a CHECK when creating the User table, we verify that the user's email is of the form `example @ example.fr`.

- Phone numbers

Using a CHECK CONSTRAINT on the table User, we verify that the user phone number respect the pattern of a classic phone number : `+33699999999` or `0699999999`.

- Passwords strength

Using a CHECK CONSTRAINT on the table User, we check that the password is strong, i.e. if it has at least one capital letter, a lowercase letter, a special character, a number and its length is greater than or equal to 8.

- Teacher hired date not in the future

As the SYSDATE cannot be used in a CHECK CONSTRAINT, we created a trigger : `trg_teacher_hired_date` to ensure that the teacher hired date is lower than the SYSDATE. If this condition isn't respected, it raises a -20003 APPLICATION ERROR.

- Each report must have minimum one keyword

We added a trigger `trg_report_validation` in order to check that every final report has at least one keyword. Indeed, when a report is declared final, that is to say when it has been vetted by the company tutor and the pedagogic tutor, the trigger count the number of keyword for the report. If this number is lower than 1 it raises a -20005 APPLICATION ERROR.

- Consistency between a student's group and their promotion

Report statistics :

Most wanted report Number of view per report Most wanted keyword Number of consultation for each report Number of copy for each report Number of printing for each report Number of downloading for each report

Report :

All students have to submit intermediate documents but only the final report will be saved Submit the report before a deadline Become readable for the students and teachers only after validation of both tutors

Confidentiality :

Implementation of the report confidentiality When a user wants to download, copy or print a report, check that the action requested are allow by the level of confidentiality. Only the people who have an access to MyEfrei can have access to the reports after validation

Error management :

When searching for a report by keyword, if the keyword does not already exist in the database, send an error message.

Search

Trigger TRG_STUDENT_PROMOTION

Function FUN_IS_ALLOWED

Procedures PRC_REPORT_*

Function FUN_MOST_WANTED_REPORTS (ne garder que celle-ci ou FUN_REPORTS_BY_KEYWORD ?)

Function FUN_REPORTS_BY_KEYWORD (ne garder que celle-ci ou FUN_MOST_WANTED_REPORTS ?)

Trigger TRG_REPORT_VALIDATION

Problems encountered

Fucking Oracle

Oracle = Cancer

Subject understanding

Virtual machine = de la merde

Need to commit

Conclusion