

# CASE STUDY: University Exams



UNIVERSITÀ DI PISA

A university plans to build a data mart that would help them in analyzing the exams performance of the students in **master degree programs** in different academic sessions.

**Courses** have a code, which is unique, a name, whether it is mandatory or not, the teacher and department name, the credits and the semester in which a course is offered.

**Students** have a number, which is unique, the gender, the university name that awarded the bachelor degree, the name of the master degree program, the year of enrollment.

**Exams** have a grade, a value between 1 and 31, considered passed if the grade is greater than 17, the exam session, the academic year. Failed exams are registered too.

1. Number of exams passed, and number of exams failed, **by** course name, **by** academic year, and **by** session.
2. Number of exams failed, by the course name, by academic year, **by** session, and **by** bachelor university name.
3. For a specified master degree program and student's enrollment year, the average grade of passed exams and the total number of credits given, **by** student gender.
4. For the current academic year, average exams grade, number and the percentage of students who passed the exam, **by** the course name, and **by** session.
5. For a specified master degree program and courses with a number of exams passed of less than 3, the number of exams, **by** the course name, **by** academic year.