Data Warehouse Report and Design

Our data warehouse covers student course enrolments by semester, the information that is include is their courses, campus, academic programme and what semester/trimester they enrolled in that course as well as their mark for the course.

The data warehouse also covers the semester details of university staff. This includes which department they are in, as well as their campus, course they teach, which semester/trimester the information is valid. Other information is their salary, number of students they taught that time period, the amount of grant money they earned and how many research projects they completed.

We record room reservation data which includes room, person who booked it, campus the room is at and the date and time of the booking. We also record how many hours the room is reserved for.

This data warehouse satisfies analysis needs of university decision makers by allowing them to find information on student enrolments at all the campuses of University X. They can also find out how many students are enrolling courses and the marks they are receiving in those courses. They can see what staff are working on each time period and what courses they are teaching as well as financial data on them each semester. They can find out information on room reservations on the campus like time and how many times they are reserved. With the information provided by the data warehouse University X decision makers can make informed decisions about these important functions of the university.

Some queries that could be asked are:

What is the average grade of course x over the last 5 years?

Which course had the most students enrolled last year?

What is the most popular major/minor by academic programme?

Average staff tenure by campus

Average staff tenure by department of campus

Which staff member has completed the most research projects over the last 10 years?

Which staff member has earned the most grant money by department at campus x?

What is the average salary of staff by department at campus x?

What was the most reserved room last month?

Which department reserves rooms most frequently?

What is the most common time for rooms at campus x to be reserved?

AcademicProgramme

academicProgrammeId
name
programTotalCredits
level
certificationAchieved
majorMinor

Campus

campusId
name
address

StaffSemesterInfo

personId
departmentId
campusId
courseId
timeId
salary
numberOfStudentsTaught
grantMoneyEarned
completedResearchProjects

StudentCourseEnrolment

personId
courseId
campusId
academicProgrammeId
timeId
mark

Person

personId
firstName
lastName
contactNumber
qualification
highestEducationLevel
isStudent
isStaff
address

RoomReservation

roomId
personId
campusId
timeId
hoursReserved

Course

courseId
name
numberOfCredits
description

Department

departmentId
name
description
contactNumber

Time

timeId
semesterTrimesterNumber
year
day
month
time

Room

roomId
facilityName
capacity
roomType