# Section 1: Datawarehouse Design (5 marks)

You need to write a short report explaining subject-area/s covered by your data

warehouse, illustrate the documented schema and discuss how the data warehouse

satisfies the information analysis needs of the University. Give examples of analysis

queries that your design supports.

Product = staff, student, course

Time = semester, year, trimester

Location = campus, country

## Student Enrolment

## Staff Info

## Data Warehouse Schema Satisfies Information Analysis Needs

This data warehouse design will satisfy the information analysis needs of the University X’s decision makers. It allows them to find information on historical staff allocation, student course and program enrolment and historical student grade information at all its physical and online campuses. This data warehouse design allows decision makers to review the campuses that students are enrolled to attend as well as which staff are allocated to which campus in each time-period. With the information provided, the decision makers can analyse the most popular and the least popular courses, highest and lowest average grade of each course and compare students’ final marks across semester, along with which staff member is teaching each course. This can assist the decision makers in making informed business decisions in how the university is to be run successfully.

## Analysis Queries

### Student Enrolment Queries

* How many students enrolled in Semester 1 2020 at Callaghan campus?
* How many total students enrolled in 2021 vs 2022 at Ourimbah campus?
* How many students are enrolled for online studies?
* Which students are enrolled to start University in Semester 2 2022?

### Staff Info Queries

* How many staff work in the School of Engineering and Computing in 2019?
* What is the average salary of all teaching staff in 2022?
* How many staff are based in Australia?
* How many staff members are lecturers?

### Course Queries

* How many courses were offered in Semester 1 of 2020?
* Which course had the most students enrolled in 2021?
* Which course had the highest-grade average in 2019?
* Which course has the lowest grade average over all time?