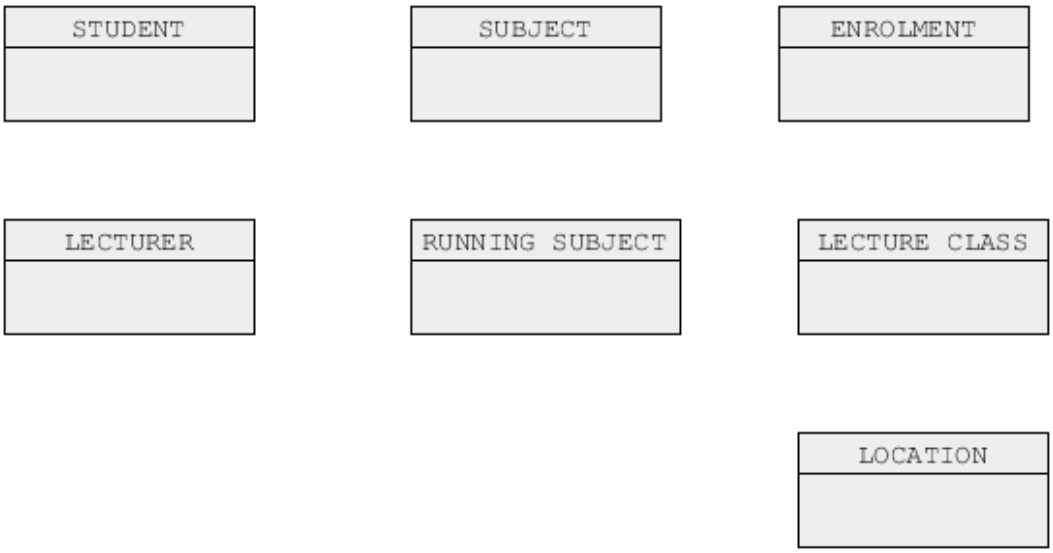
School of Computing and Information Technology
University of Wollongong

Session: **Spring 2018**
Lecturer: **Tianbing Xia**

CSIT115/CSIT815 Data Management and Security
Laboratory 2 sample solutions

Step 1: Create class of objects

A university would like to create a database that contains information about the subjects, students, enrolments, lecturers, and teaching duties of lecturers.
A student is described by a student number, first name, last name, date of birth, email address, contact phone number, and degree enrolled. A student number identifies each student. Students have unique email addresses and unique phone numbers. We assume that no two students have identical combinations of the values of attributes for first name, last name and date of birth.
The subjects offered by the university are described by a unique subject number, unique title, total amount of credit points granted upon successful completion of a subject, and a short description. A subject is offered for enrolment once per year, in either Autumn or Spring session.
Students enrol in subjects. A student is allowed to enrol, drop, and to enrol again a subject many times. A database should contain information about all enrolments and all drops performed by the students. An enrolment of a subject and drop from a subject are described by an exact date and time when it has happened.
The lecturers teach the subjects. A lecturer is described by a first name, last name, a unique staff number, position occupied, title, and school they belongs to.
The database should contain information about a session and year a lecturer taught a subject.
The running subjects have lecture classes. A database should contain information about the locations (building and room number), day, time and length of the lecture classes.



Step 2: Create associations and association classes

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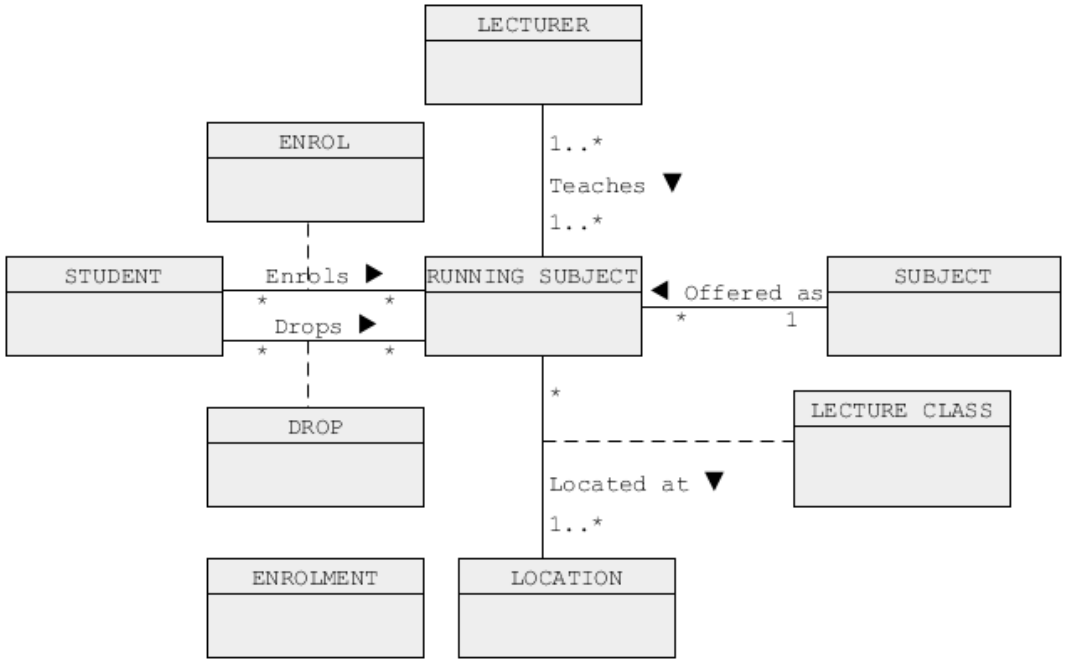

Step 3: Create attributes and link attributes

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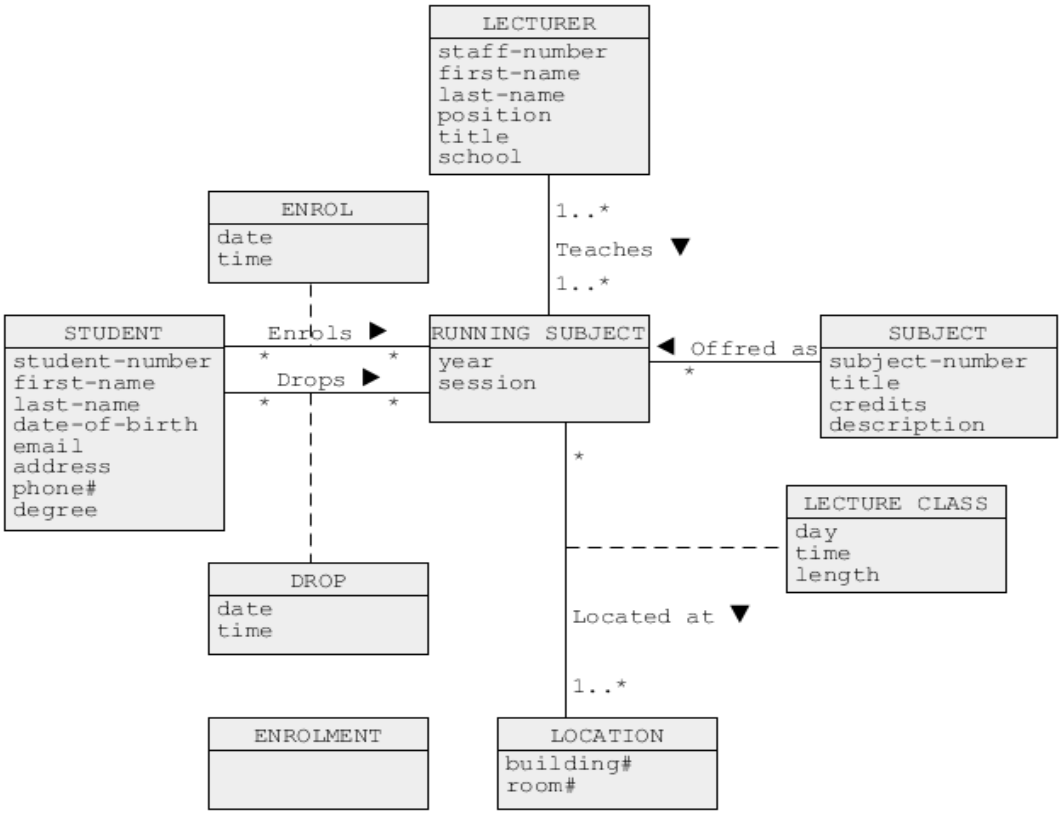

Step 4: Create identifies

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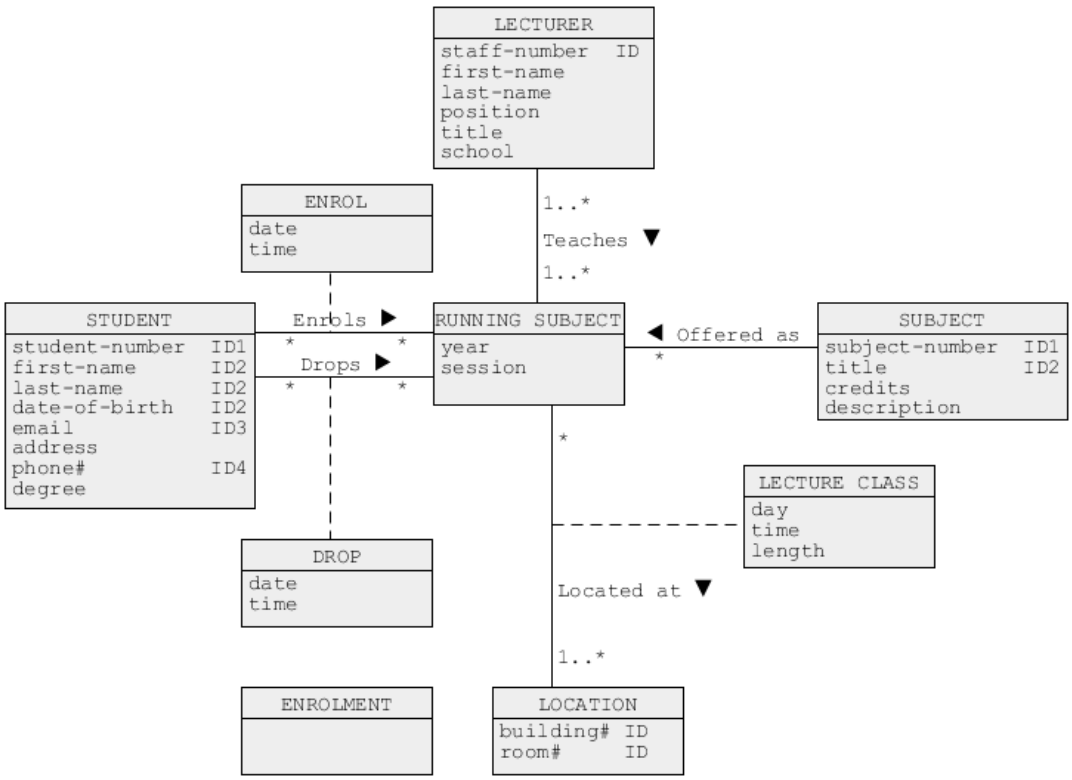

Step 5: Create qualifications

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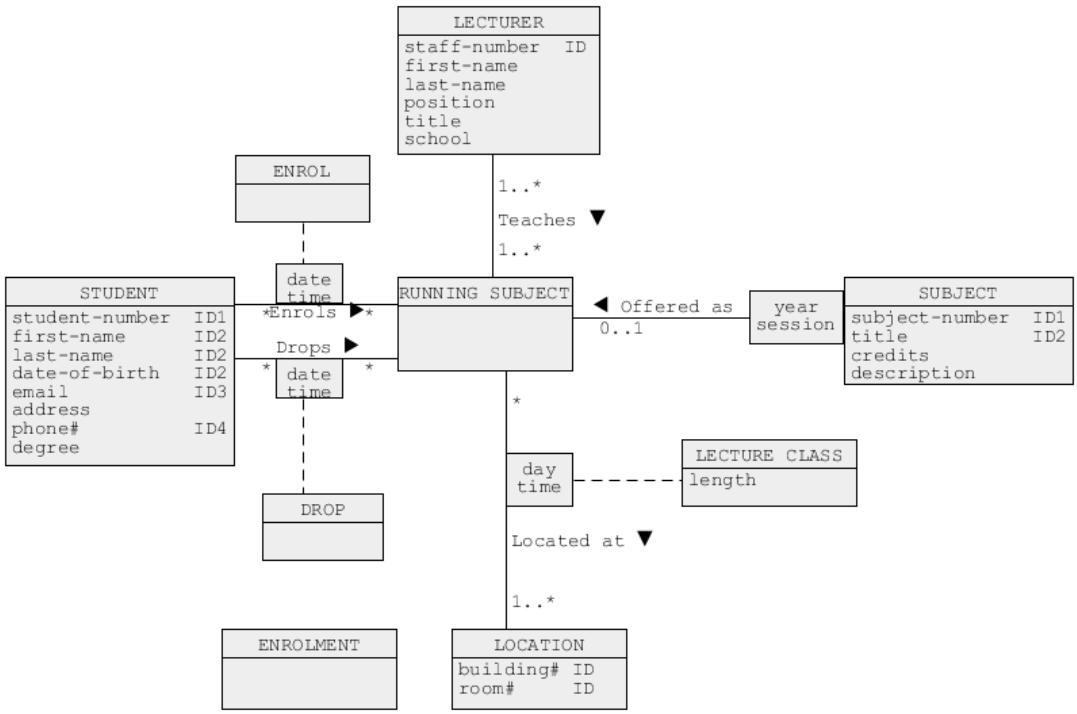

Step 6: Create generalizations

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