

**Semantic Web**  
**Practice Assignment1**

Write an XML document provided with its DTD to describe data on the MET website. Construct the DTD according to the following description: (You can use eclipse to validate DTDs or you can use <http://www.xmlvalidation.com/>)

- a) The data consists of staff, students, courses, and university rooms.
- b) Staff consists of one dean, at least one professor, at least one lecturer, and at least one teaching assistant.
- c) Each staff member has the following properties:
  - name,
  - title,
  - location,
  - at least two emails,
  - and an optional phone number.
- d) An unlimited number of students can register on the MET website. Each student has a name and an email in any order.
- e) Update the name of each staff member and student such that it consists of either:
  - a surname only,
  - at least one middle name and a surname,
  - or a given name, optional middle name(s), and an optional surname.
- f) Each staff member and student should have a unique ID number.
- g) Content could have any number of courses. Each course has:
  - a unique course code,
  - a name,
  - at least one staff member,
  - announcements,
  - and at least one course meeting.
- h) Update assigned staff in a course such that they reference an existing staff member. The type of the staff member can be optionally included.
- i) Each meeting must include the location, the day, and the slot. Restrict the meeting days to be in the form SAT to THU, and the slot number to be S1 - S5.
- j) University rooms must have a unique location. A room can be a hall, a lab, or a tutorial. If the number of seats is not mentioned, then the default is 200 for a lecture hall and 25 for a lab or a tutorial.
- k) Course meetings should reference existing rooms.
- l) Use DTD entities for the staff and the name elements.