# COMP 3311: Database Management Systems

## Final Year Project (FYP) Management System

### Task 2: Relation Schemas

The following relation schemas must be used for Task 2. The primary key of each relation schema is underlined and shown in red color. A foreign key is shown in italic font *and* also in bright blue color if not part of a primary key.

**IMPORTANT**: *Your Oracle database __must use exactly__ the same relation and attribute names as those given below.*

CSEStudent(username `char(15)`, name `varchar2(30)`, *groupId* `smallint`)

Faculty(username `char(15)`, name `varchar2(30)`, roomNo `char(5)`, facultyCode `char(2)`)

FYP(fypId `smallint`, title `varchar2(100)`, description `varchar2(1200)`, *category* `varchar2(30)`, type `char(7)`, otherRequirements `varchar2(200)`, minStudents `smallint`, maxStudents `smallint`, isAvailable `char(1)`)

FYPCategory(category, `varchar2(30)`)

InterestedIn(*fypId* `smallint`, *groupId* `smallint`, priority `smallint`)

ProjectGroup(groupId `smallint`, groupCode `char(5)`, *assignedFYP* `smallint`, *reader* `char(15)`)

RequirementGrades(*facultyUsername* `char(15)`, *studentUsername* `char(15)`, proposalReport `number(4,1)`, progressReport `number(4,1)`, finalReport `number(4,1)`, presentation `number(4,1)`)

Supervises(*username* `char(15)`, *fypId* `smallint`)

## Constraints

In addition to any constraints that either are described in the problem description, are derivable from the example E-R schema for Task 1 or can be inferred from common sense and/or real-world knowledge, the Task 2 relation schemas also should constrain the values of the attributes listed below to only the indicated values. Only constraints that can be expressed on a single table should be specified.

| Attribute | Allowed and default values |
|---|---|
| facultyCode | 2 uppercase letters |
| groupCode | 2 or 4 uppercase letters plus 1 digit whose value is between 1 and 4 (e.g., AA1, AABB1) |
| isAvailable | Y, N (the default value is Y) |
| minStudents | between 1 and maxStudents (the default value is 1) |
| maxStudents | between minStudents and 4 (the default value is 1) |
| roomNo | 4 digits optionally followed by an uppercase letter (e.g., 3558, 2331A) |
| username | between 3 and 15 lowercase letters |