UNIVERSITY DATABASE

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**PERSON** table: One record for every person in the university   
***field description data type field width*** (in \*.txt data files)

NUM Person's ID (Social Security number) text 9 primary key  
LASTNAME Person's last name text 12   
FIRSTNAME Person's first name text 12

**PROF** table: One record describing each professor in the university.   
 ***field description data type field width***

PNUM Professor's ID (Social Security number) text 9 primary key   
LASTNAME Professor's last name text 12  
FIRSTNAME Professor's first name text 12  
DEPT Department of which the prof is a member text 4  
OFFICE Room number of the professor's office text 6  
RANK Professor's academic rank text   1  
DATE\_EMP Original date of employment date 10  
SALARY Annual salary decimal   8,2  
MANAGER ID of the Professor's manager (also a prof) text 9

**STUDENT** table: One record describing each student in the university   
***field description data type field width***

SNUM Student's ID (Social Security number) text   9 primary key  
LASTNAME Student's last name text 12  
FIRSTNAME Student's first name text 12  
DEPT Department in which the student is enrolled text   4  
DATE\_ENT Date on which student entered the university date 10  
CR\_COMP Number of credits the student has completed smallint 3  
GPA Student's grade point average decimal 4,3  
ADVISOR ID of the student's faculty advisor -a prof text 9

**COURSE** table: One record describing each course offered by the university   
***field description data type field width***

CNUM Unique course number text 6 primary key  
NAME Unique course name text 64 varying  
DESCR Course description text 256 varying  
DEPT Department which offers the course text   4  
LEVEL Level of difficulty of the course smallint 1  
CREDITS Number of credits which the course is worth smallint 1

**SECTION** table: One record for each section of a course   
***field description data type field width***

CNUM Course number text   6  
SECNUM Section number of this offering of the course text   4 primary key  
PNUM ID number of the professor teaching this section text   9  
TERM Semester in which this section is offered text 3 primary key

**REPORT** table: One record for each student enrolled in a course section   
***field description data type field width***

SNUM Student's ID text   9 primary key  
SECNUM Section taken by the student text   4 primary key  
TERM Semester in which student took the course text 3 primary key  
GRADE Grade achieved by the student text   1

 The following semantic rules are adhered to in this university:   
 These semantic rules wholly determine the intension of the database and hence all of its functional dependencies.

As always, data entry errors may (and frequently do) cause the database extension to violate these semantic rules.

Professors and students may also be persons, but this is not required

The *num* attribute of PERSON is unique

The *pnum* attribute of PROF is unique

The *snum* attribute of STUDNT is unique

The *cnum* attribute of COURSE is unique

The *name* attribute of COURSE determines the *descr* attribute

Managers and advisors must be professors (frequently violated in the current extension)

In SECTION, the *secnum* may be repeated, but is unique for any one *term*

A student may register for a specific section at most once for any one *term*

All days are European style, *i.e.* yyyy-mm-dd