

## Professor table instance

pid	lname	fname	dob	rank	research
100	Benson	Gary	Null	Associate	Repetitive DNA
603	Korolev	Kirill	Null	Assistant	Evolutionary Dynamics
478	Galagan	James	Null	Associate	Systems Biology
891	Segre	Daniel	Null	Full	Metabolic Networks

←  
row  
record  
tuple

↑  
column  
field  
attribute

## Professor table schema (formal)

**Professor** (pid: integer, lname: string, fname: string, dob: date, rank: string, research: string)

**Professor (pid,lname,fname,dob,rank,research)**

## Professor table schema in SQL

```
CREATE TABLE Professor (
    pid    INTEGER NOT NULL AUTO_INCREMENT,
    lname  CHAR(20),
    fname  CHAR(20),
    dob    DATE,
    rank   ENUM ('Assistant', 'Associate', 'Full'),
    research VARCHAR(100),
    PRIMARY KEY (pid))
```

Some datatypes: (manual <http://dev.mysql.com/doc/refman/5.5/en/data-types.html>)

BOOLEAN	zero-one
INTEGER	signed integer
FLOAT	single precision floating point number
DOUBLE	double precision floating point number
DATE	yyyy-mm-dd
DATETIME	yyyy-mm-dd HH:MM:SS
TIMESTAMP	can be used to automatically record date and time of an insert or update
CHAR(x)	string of fixed length x, right padded with spaces
VARCHAR(x)	variable length string, max length x, trailing spaces removed when stored
TEXT	very long variable length string
ENUM('value1', 'value2', ...)	string object, one of pre-specified values

