

## Education DB

student(student\_id, first\_name, last\_name, dob, gender, address, note, *class\_id*)

subject(subject\_id, name, credit, percentage\_final\_exam)

lecturer(lecturer\_id, first\_name, last\_name, dob, gender, address, email)

teaching(subject\_id, lecturer\_id)

grade(code, fromScore, toScore)

clazz(clazz\_id, name, *lecturer\_id*, *monitor\_id*)

enrollment(student\_id, subject\_id, semester, midterm\_score, final\_score)

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student(student\_id, first\_name, last\_name, dob, gender, address, note, *class\_id*)

Attribute name	Type	NOT NULL	Description
student_id	CHAR(8)	Yes	Student identification code. PRIMARY KEY
first_name	VARCHAR(20)	Yes	First name
last_name	VARCHAR(20)	Yes	Last name
dob	DATE	Yes	Date of birth. New student's age must be between 16 and 35.
gender	CHAR(1)	No	Sex, must be either 'F' (female) or 'M' (male).
address	VARCHAR(30)	No	Residential address
note	TEXT	No	Other information
clazz_id	CHAR(8)	No	Class identification code of student. It is a FOREIGN KEY references to Clazz_id of Class relation

subject(subject\_id, name, credit, percentage\_final\_exam)

Attribute name	Type	NOT NULL	Description
subject_id	CHAR(6)	Yes	Subject identification code. PRIMARY KEY
name	VARCHAR(30)	Yes	Subject name
credit	INT	Yes	Credit number, must be between 1 and 5.
percentage_final_exam	INT	Yes	Percentage of final examination for final evaluation. It varies between 0-100.

lecturer(lecturer\_id, first\_name, last\_name, dob, gender, address, email)

Attribute name	Type	NOT NULL	Description
lecturer_id	CHAR(5)	Yes	Lecturer identification code. PRIMARY KEY
first_name	VARCHAR(20)	Yes	First name
last_name	VARCHAR(20)	Yes	Last name
dob	DATE	Yes	Date of birth. New lecturer's age must be between 22 and 65.
gender	CHAR(1)	No	Sex, must be either 'F' (female) or 'M' (male).
address	VARCHAR(30)	No	Residential address
email	VARCHAR(40)	No	Email address

Teaching(subject\_id, lecturer\_id)

Attribute name	Type	NOT NULL	Description
subject_id	CHAR(6)	Yes	Subject identification code. FOREIGN KEY references to subject_id of Subject relation
lecturer_id	CHAR(5)	Yes	lecturer identification code. FOREIGN KEY references to lecturer_id of lecturer relation
PRIMARY KEY = {subject_id, lecturer_id}			

grade(code, from\_score, to\_score): grade definition

Attribute name	Type	NOT NULL	Description
code	CHAR(1)	Yes	Course grade. DOMAIN = {'A', 'B', 'C', 'D', 'F'}. PRIMARY KEY.
from_score	DECIMAL(3,1)	Yes	The minimal value of grade interval. DOM = [0, 10].
To_score	DECIMAL(3,1)	Yes	The maximal value of grade interval. DOM = [0,10].

clazz(clazz\_id, name, lecturer\_id, monitor\_id)

Attribute name	Type	NOT NULL	Description
clazz_id	CHAR(8)	Yes	Class identification code. PRIMARY KEY
name	VARCHAR(20)	No	Class name
lecturer_id	CHAR(5)	No	Lecturer identification code of form teacher; FOREIGN KEY references to lecturer_id of Lecturer relation

monitor_id	CHAR(8)	No	ID of class monitor. FOREIGN KEY references to student(student_id)
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enrollment(student\_id, subject\_id, semester, midterm\_score, final\_score)

Attribute name	Type	NOT NULL	Description
student_id	CHAR(8)	Yes	Student identification code. FOREIGN KEY references to student(student_id)
subject_id	CHAR(6)	Yes	Subject code. FOREIGN KEY references to subject(subject_id)
semester	CHAR(5)	Yes	Annual semester: '20171', '20172', '20173', ...
midterm_score	Float	No	Score of mid-term exam. DOM = [0,10] and (midtermScore mod 0.5) must be 0
Final_score	Float	No	Score of final exam. DOM= [0,10] (finalScore mod 0.5) must be 0
PRIMARY KEY = {student_id, subject_id, semester}			

