

Oefening 7 – Studiecontracten

- Hogeschool → studiecontracten
- Studiecontracten = lijst van te volgen vakken

`Student(id_student, email, surname, name, class_id)`

`Class(id_class, name)`

`Study_program(id_student, remark, number_absences, end_result, id_course)`

`Course(id_course, name, study_points)`

Oefening 7 – Studiecontracten

- Kandidaatsleutels?

`Student(id_student, email, surname, name, class_id)`

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- Kandidaatsleutels

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Oefening 7 – Studiecontracten

- Primary key?

`Student(id_student, email, surname, name, class_id)`

`Class(id_class, name)`

`Study_program(id_student, remark, number_absences, end_result, id_course)`

`Course(id_course, name, study_points)`

Oefening 7 – Studiecontracten

- Primary key

PK

Student(id_student, email, surname, name, class_id)

Class(id_class, name)

Study_program(id_student, remark, number_absences, end_result, id_course)

Course(id_course, name, study_points)



Oefening 7 – Studiecontracten

- Forein key?

PK

Student(id_student, email, surname, name, class_id)

Class(id_class, name)

Study_program(id_student, remark, number_absences, end_result, id_course)

Course(id_course, name, study_points)



Oefening 7 – Studiecontracten

- Foreign key?

PK

FK

Student(id_student, email, surname, name, class_id)

Class(id_class, name)

Study_program(id_student, remark, number_absences, end_result, id_course)

Course(id_course, name, study_points)

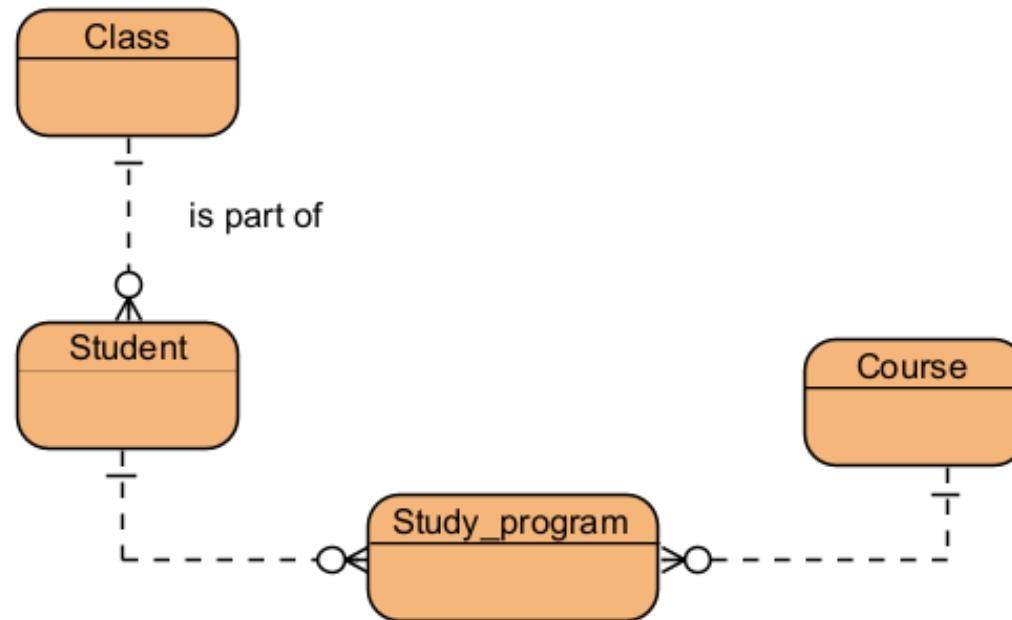


Oefening 7 – Studiecontracten

- ERD?

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- ERD



Oefening 7 – Studiecontracten

- Namen en voornamen van studenten uit klas met code 3APP?

Student(id student, email, surname, name, class_id)

Class(id class, name)

Study_program(id student, remark, number_absences, end_result, id course)

Course(id course, name, study_points)

Oefening 7 – Studiecontracten

- Namen en voornamen van studenten uit klas met code 3APP?

Student_3APP = **Selectie** op Student **met selectievoorwaarden**
Student.class_id = 3APP

Eindresultaat = **Projectie** op Student_3APP **met kolomnamen**
(surname, name)

Oefening 7 – Studiecontracten

- Alle studenten: studentennummer, voornaam, naam, volledige klasnaam?

Student(id student, email, surname, name, class_id)

Class(id class, name)

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Oefening 7 – Studiecontracten

- Alle studenten: studentennummer, voornaam, naam, volledige klasnaam

```
Class_Student = Class join Student met joinvoorwaarde  
Class.id_class = Student.class_id
```

```
Eindresultaat = Projectie op Class_Student met kolomnamen  
(Student.id_student, Student.name, Student.surname, Class.name)
```

Oefening 7 – Studiecontracten

- Gegeven: studentennummer = 587468
- Gevraagd: informatie studiecontract van die student
 - Van alle vakken: vaknaam en studiepunten

Student(id student, email, surname, name, class_id)

Class(id class, name)

Study_program(id student, remark, number_absences, end_result, id course)

Course(id course, name, study_points)

Oefening 7 – Studiecontracten

- Gegeven: studentennummer = 587468
- Gevraagd: informatie studiecontract van die student
 - Van alle vakken: vaknaam en studiepunten

Id_587468 = **selectie** op Study_program **met selectievoorwaarde**
id_student = 587468

Info = Id_587468 **join** Course **met joinvoorwaarde**
S.id_course = Course.id_course

Eindresultaat = **projectie** op Info **met kolomnamen**
(name, study_points)

Oefening 7 – Studiecontracten

- Studentennummers van studenten zonder studiecontract

Student(id student, email, surname, name, class_id)

Class(id class, name)

Study_program(id student, remark, number_absences, end_result, id course)

Course(id course, name, study_points)

Oefening 7 – Studiecontracten

- Studentennummers van studenten zonder studiecontract

Stud_met_prog = projectie op Study_program met kolommen (id_student)

Studenten = projectie op Student met kolommen (id_student)

Eindresultaat = Studenten – Stud_met_prog

Oefening 7 – Studiecontracten

- Een student verwijderen

Student(id student, email, surname, name, class_id)

Class(id class, name)

Study_program(id student, remark, number_absences, end_result, id course)

Course(id course, name, study_points)

Oefening 7 – Studiecontracten

- Een student verwijderen
 - Id_student opzoeken
 - In Study_program: alle tupels met dat studentnummer verwijderen
 - In Student: tuple van student verwijderen
- > Volgorde belangrijk!