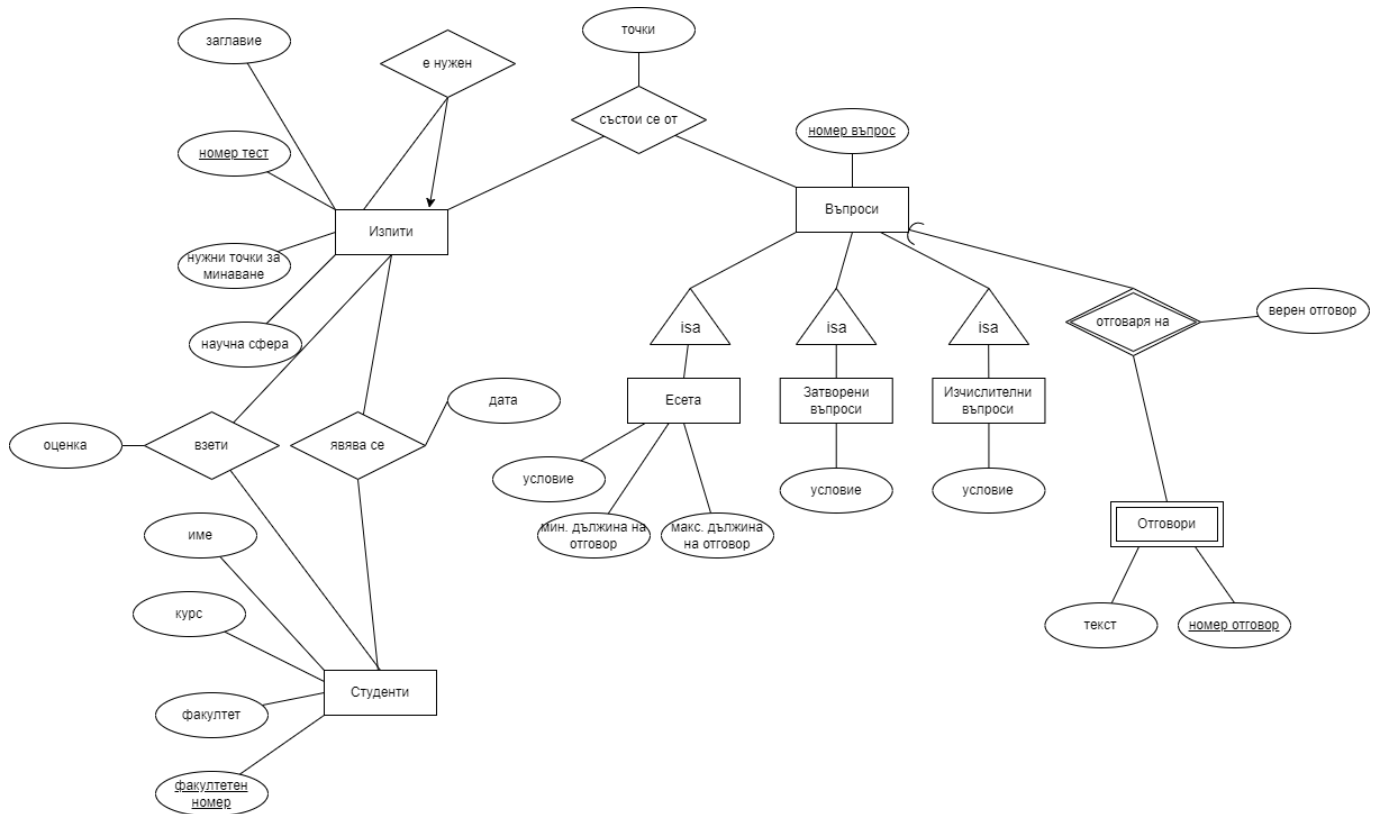# Иван Петров 3MI0700035

Students(<u>fn</u> : string(10), name : string(100), faculty : string(100),course : int)

PK: (<u>fn</u>, unique, not null)

CK: (course > 0)

Exams(<u>nexam</u> : int, title : string(100), minpoints : int, field : string(100), needed_nexam : int)

PK: (<u>nexam</u>, unique, not null)

FK: (needed_nexam)

CK: (minpoints > 0)

TakesExams(<u>fn</u> : string(10), <u>nexam</u> : int, date : date)

PK: (<u>fn</u>, <u>nexam</u>, unique, not null)

FK: (<u>fn</u>, <u>nexam</u>)

TakenExams(<u>fn</u> : string(10), <u>nexam</u> : int, grade : decimal)

PK: (<u>fn</u>, <u>nexam</u>, unique, not null)

FK: (<u>fn</u>, <u>nexam</u>)

CK: (grade >= 2)

ConsistsOf(<u>nexam</u> : int, <u>nquestion</u> : int, points : decimal)

PK: (<u>nexam</u>, <u>nquestion</u> , unique, not null)

FK: (<u>nexam</u>, <u>nquestion</u>)

CK: (points >= 0)

Answers(<u>nanswer</u>, text, <u>nquestion</u>, is_right_answer : boolean)

Отговорите са слаби множества

PK: (<u>nanswer</u>, text, <u>nquestion</u>, unique, not null)

FK: (nquestion)
CK: (is_right_answer - 0, 1)

Първи вариант

Questions(nquestion : int)
PK:(nquestion, unique, not null)

Essays(nquestion : int, condition : string(100), min_length : int, max_length : int)
PK:(nquestion, unique, not null)
FK:(nquestion)
CK: (min_length > 0)
CK: (max_length >= min_length)

ClosedQuestions(nquestion : int, condition : string(100))
PK:(nquestion, unique, not null)
FK:(nquestion)

CalculationQuestions(nquestion : int, condition : string(100))
PK:(nquestion, unique, not null)
FK:(nquestion)

Втори вариант

Questions(nquestion : int, condition : string(100), min_length : int, max_length : int)
PK:(nquestion, unique, not null)
CK: (min_length > 0)
CK: (max_length >= min_length)

За въпросите избирам първия вариант заради по-изчистения вид на атрибутите (липсата на много NULL атрибути, които могат да доведат до грешки), ако в бъдеще добавим още атрибути към въпросите.