Adela Krylova a.krylova@innopolis.university

Task2:

- Consider following schema:
  - Author(author_id, first_name, last_name)
  - AuthorPub(author_id, pub_id, author_position)
  - Book(book_id, book_title, month, year, editor)
  - Pub(pub_id, title, book_id)
- Implement the following RA in SQL queries
  - $Author \bowtie_{author_{id}=editor} Book$
  - $\Pi_{first\_name,last\_name}\left(\left(\Pi_{author\_id}(Author) - \Pi_{editor}(Book) \bowtie Author\right)\right)$
  - $\Pi_{author\_id}(Author) - \Pi_{editor}(book)$

- SELECT *
  FROM author, book
  FULL OUTER JOIN author a
  ON a.author_id = book.editor;

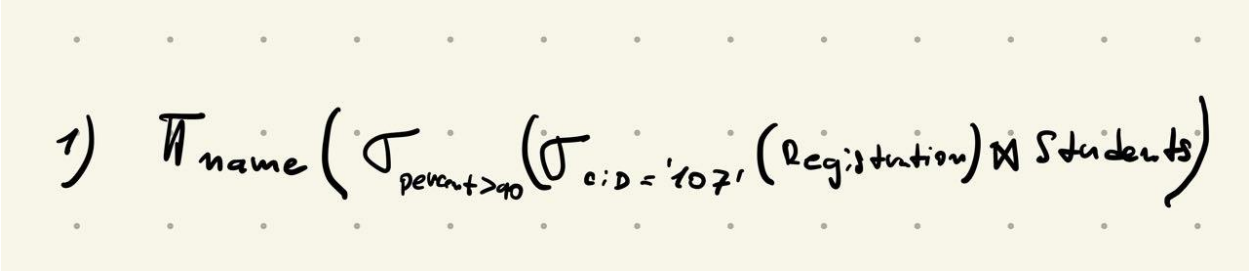
- SELECT author.last_name, author.first_name
  FROM author, book
  WHERE author.author_id != book.editor

- SELECT author.id
  FROM author, book
  WHERE author.author_id != book.editor

Task3:

- Consider following schema:
  - Students(sid: integer, sname: string)
  - Courses(cid: integer, cname: string)
  - Registration(sid: integer, cid: integer, percent: real)
- Statement to produce RA and queries for the following statements
  - Find the distinct names of all students who score more than 90% in the course numbered 107
  - Find the number of student whose score is 75% or above in each course.
  - Find those students who are registered on no more than 2 courses.

- SELECT DISTINCT Students.name
  FROM Students, Registration
  WHERE Registration.cid = 107 AND Registration.percent > 90 AND Student.sid = Registration.sid



- SELECT COUNT(DISTINCT Students)
  FROM Students, Registration
  WHERE Registration.percent > 75 AND Student.sid = Registration.sid

- SELECT *
  FROM Students, Registration
  WHERE COUNT(Registration.sid) <= 2 AND Studetns.sid = Registration.sid