

Exercise: Recursive SQL Queries

Consider the relation Ancestors (pNr, personName, gender, birthYear, birthMonth, mother, father) which describes the ancestry of persons. Mother and father are foreign keys referencing pNr. They describe for a given person which persons are their mother and father.

Write the following query in SQL:

List the names and birthYears of all persons who are born in July and who are descendants in the female line of persons named Marie Curie¹.

"In the female line" means: at each level you look for all children, but for the next step further down you need to consider again only those who are mothers. (This is easier to write than the more general case).

1. Marie Curie was a female Polish-French physicist who discovered radioactivity and received Nobel prizes in physics and in chemistry. Her daughter also won the Nobel prize for chemistry.