Problem
You are given two different databases, A and B, representing the same information about employees. For every employee, you need to store the SSN, name, and salary in both databases. Employees belong to a number of categories (not necessarily disjoint). In database A, there are relations EMP(SSN,name,salary) and CAT(SSN,category). There is a tuple \((n,c)\) in CAT for every category \(c\) to which an employee with SSN \(n\) belongs. In database B, there is a single EMPLOYEE relation containing, in addition to SSN, name, and salary information, and an attribute for every employee category. That attribute assumes true/false values, depending on whether an employee belongs to the given category. Do not assume any fixed set of categories.

Define in SchemaSQL the mappings between the databases A and B (in both directions).

A to B:
CREATE VIEW tmpCAT(SSN, category, value) AS
  (SELECT C.SSN, C.category, 'True'
      FROM A::CAT C)
UNION
  (SELECT E.SSN, D, 'False'
      FROM A::EMP E, A::CAT.category D
      WHERE D NOT IN
        (SELECT C2.category
         FROM A::CAT C2
         WHERE E.SSN = C2.SSN))

CREATE VIEW AtoB::EMPLOYEE(SSN, name, salary, C) AS
  SELECT E.SSN, E.name, E.salary, tC.value
  FROM EMP E, tmpCAT tC, tC.category C
  WHERE E.SSN = tC.SSN

B to A:
CREATE VIEW BtoA::EMP(SSN, name, salary) AS
  SELECT E.SSN, E.name, E.salary
  FROM B::EMPLOYEE E;

CREATE VIEW BtoA::CAT(SSN, category) AS
  SELECT E.SSN, Attrs AS category
  FROM B::EMPLOYEE-> Attrs, B::EMPLOYEE E
  WHERE Attrs <> 'SSN'
    AND Attrs <> 'name'
    AND Attrs <> 'salary'
    AND E.Attrs = True