

Case Study: Auto-Generated SSN as Primary and Foreign Key

Scenario:

In this case, the Social Security Number (SSN) is configured as an **INTEGER** and is automatically generated to serve as both the **Primary Key (PK)** in the **Employee** table and a **Foreign Key (FK)** in related tables.

Challenge Encountered:

Due to the auto-generation of the SSN, it was not possible to insert a supervisor's SSN (**super_ssn**) directly when creating a new employee record. This restriction is common when using identity or auto-incremented fields as keys.

Solution Implemented:

To address this, the supervisor SSN (**super_ssn**) was set using an **UPDATE** statement after the employee record was inserted. The update was based on the employee's name to locate the correct record and assign the corresponding supervisor's SSN.

```
insert into Employee(  
    FNAME,  
    MINIT,  
    LNAME,  
    BDATE,  
    ADDRESS,  
    SEX,  
    SALARY,  
    DNO  
)values  
( 'John', 'A', 'Doe', '1985-05-15', '123 Main St', 'M', 55000,1),  
( 'Jane', 'B', 'Smith', '1990-08-20', '456 Elm St', 'F', 60000,1),  
( 'Alice', 'C', 'Johnson', '1992-11-10', '789 Oak Avenue', 'F', 62000,2)
```

```
UPDATE Employee  
SET Super_ssn =9  
WHERE FNAME = 'JOHN'
```