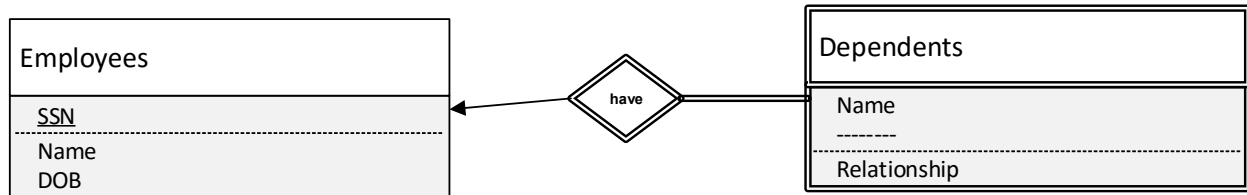Converting Weak Entities to the Relational Model


Let's consider the following weak entity relationship:



This says that Employees may have 0:many dependents, and that every Dependent must have one and only one Employee.

The SQL to implement this is:

```
CREATE TABLE Employees (
  SSN CHAR(9),
  Name CHAR(30),
  DOB DATE,
  PRIMARY KEY (SSN))
```

```
CREATE TABLE Dependents (
  SSN CHAR(9),
  Name CHAR(30),
  Relationship CHAR(20),
  PRIMARY KEY (SSN, Name),
  FOREIGN KEY (SSN) REFERENCES Employees
          ON DELETE CASCADE)
```


The ON DELETE CASCADE clause is required because a weak entity set has no meaning without the corresponding strong entity set primary key.