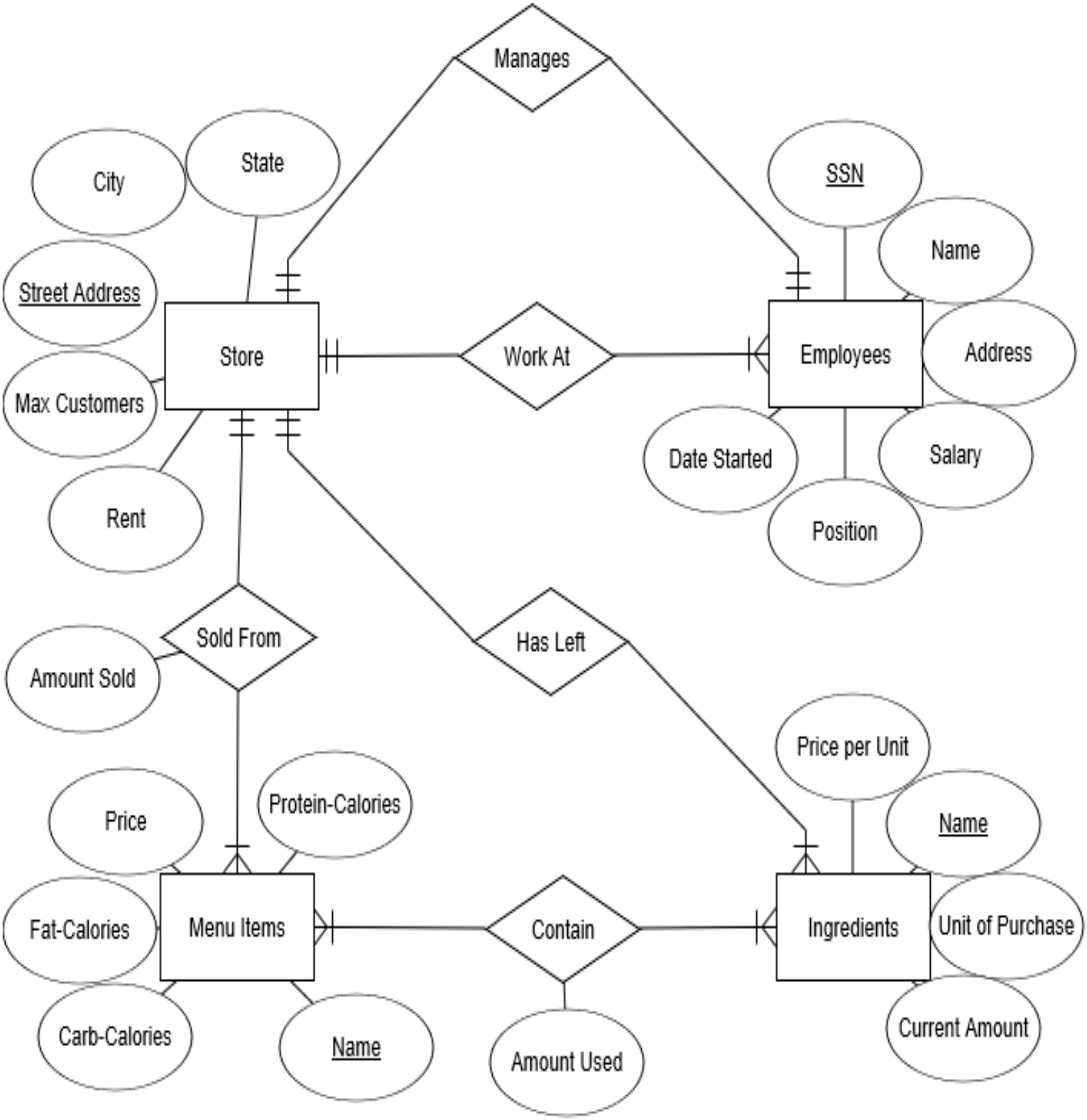
Manages
City
State
SSN
Name
Street Address
Store
Work At
Employees
Address
Max Customers
Date Started
Salary
Rent
Position
Sold From
Has Left
Amount Sold
Price per Unit
Price
Protein-Calories
Name
Fat-Calories
Menu Items
Contain
Ingredients
Unit of Purchase
Carb-Calories
Name
Amount Used
Current Amount

2.1. $\pi_{Senator.name}(\sigma_{amount} > 100{,}000\ ((\sigma_{party} == \text{“Democrat”}\ \text{Rich Person}) \bowtie \text{Contribution} \bowtie (\sigma_{party} == \text{“Republican”}\ \text{Senator})))$

2.2. $\pi_{Senator.name}(\text{Senator} \div (\pi_{ceo\text{-}ssn}(\text{Business}) \bowtie \text{Contribution}))$

2.3. $\pi_{RichPerson.name}(\sigma_{actualTaxRate} < .10 \text{ from (Rich Person} \bowtie \text{Business}))$

2.4.
```
SELECT name
FROM Senator
INNER JOIN Contribution ON Senator.SID=Contribution.SID
INNER JOIN RichPerson ON Contribution.SSN=RichPerson.SSN
WHERE Contribution.amount>100000 AND Senator.party='Republican' AND
RichPerson.party='Democrat';
```

2.5.
```
SELECT name
FROM Senator
INNER JOIN Alliance ON Senator.SID=Alliance.SID1 OR Senator.SID=Alliance.SID2
INNER JOIN Cause ON Alliance.cause-name=Cause.cause-name
WHERE Senator.party='Democrat' AND Cause.politicalAlignment='right' AND
Senator.SID=Alliance.SID1 OR Senator.SID=Alliance.SID2;
```

2.6.
```
SELECT Contribution.cause-name, SUM(amount)
FROM Contribution
GROUP BY Contribution.cause-name
HAVING SUM(amount)>=1000000;
```

3.1. Minimal Cover of F: {A → B, B → C, B → D, D → E}

3.2. Closure A^+: ABCDE

3.3. Closure B^+: BCDE

4.1. BCNF:

R1: (C, E) F1: {C → E}

R2: (D, B) F2: {D → B}

R3: (A, C, D) F3: {AD → C}

4.2. BCNF:

R1: (C, E) F1: {C → E}

R2: (D, B) F2: {D → B}

R3: (A, C, D) F3: {A → DC}