Entity Types

1. Entities
   1. Employee
   2. Department
   3. Project
   4. **Dependent (Weak Entity)**
   5. Supervision **(Associative Entity)**

2. Relationship
   1. Work for (Binary relationship)
   2. Manages (Binary relationship)
   3. Works on (Binary relationship)
   4. Controls (Binary relationship)
   5. Dependent of **(Weak Relationship)**
   6. Supervision **(Unary/ Recursive Relationship)**

3. Describe the Diagram
   1. Many Employees work in One Department
      1. Employee has
         1. ssn – primary key
         2. name – composite attributes
            1. fname – simple attribute
            2. minit – simple attribute
            3. lname – simple attribute
         3. Bdate
         4. Address
         5. Salary
         6. Sex
      2. Employee Entity has a recursive relationship
         1. One Employee supervises Many Employee
      3. Department has
         1. Name – Primary Key
         2. Locations – Multivalued Key
         3. Number – Candidate key
         4. Number_of_employee – Derived Key (depends on the employees)

   2. One Employee manages One Department
      1. Start Date – Relationship attribute

   3. Many Employees work on Many Projects
      1. Hours – Relationship attribute
      2. Project Entity has
         1. Name – Candidate key
         2. Number – Primary key
         3. Location
   4. Many Dependents Dependent on One Employee
      1. Dependent is a weak entity and has a weak relationship with Employee
         1. Name – Primary key
         2. Sex
         3. Birth date

4. Relationship
5. One Department Control Many Projects