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Database Management

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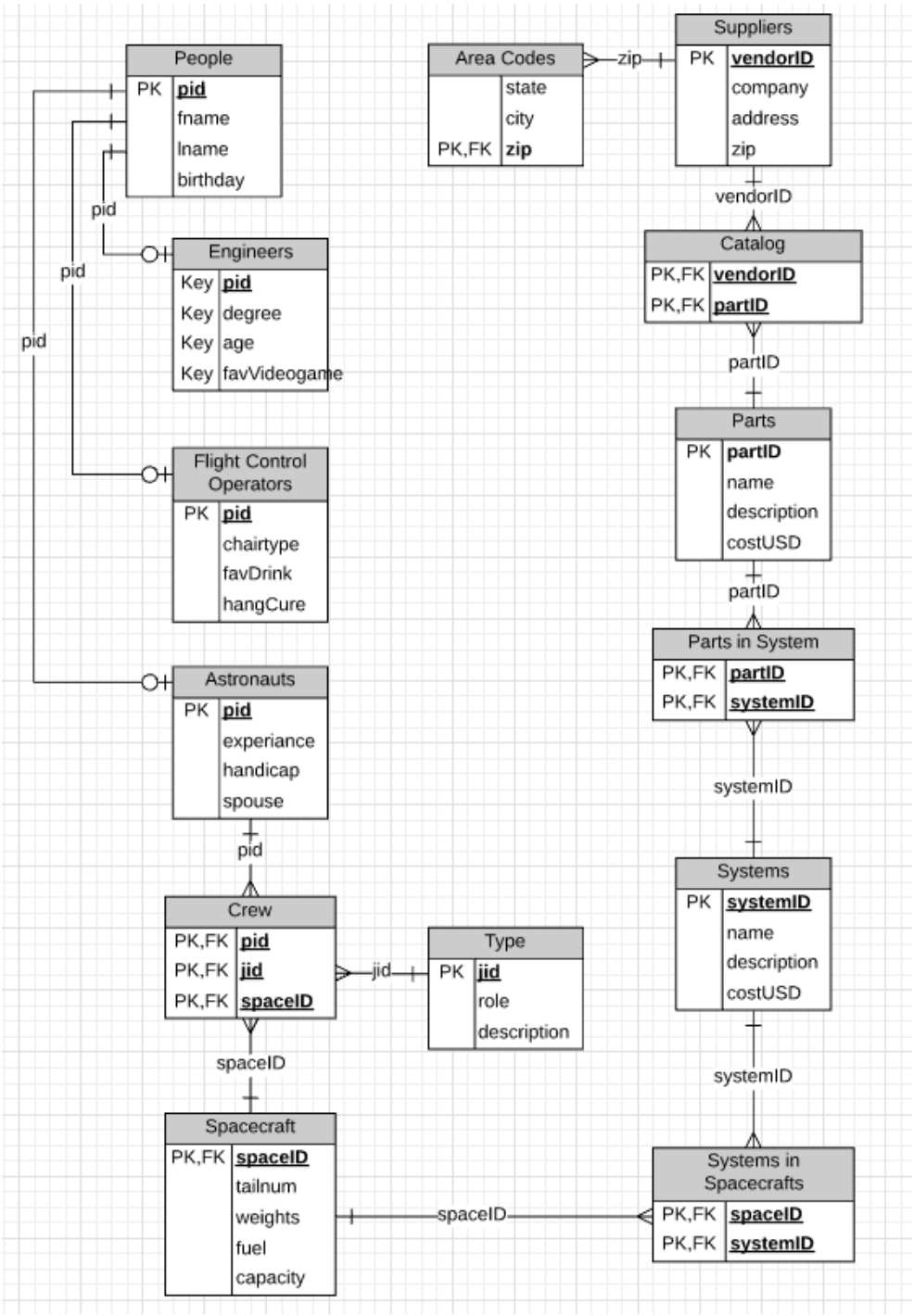
1. Beautiful E/R Diagram



2. Functional Dependencies?
    a. **Catalog**
       vendorID, partID
    b. **Crew**
       Pid, jid, spaceID
    c. **Systems in Spacecrafts**
       spaceID, systemID
    d. **Engineers**
       Pid degree, age, favvideogame
    e. **Astronauts**
       Pid experience, handicap, spouse
    f. **FCO**
       Pid chairtype, favdrink, hangcure
    g. **Type**
       Jid role, description
    h. **Spacecraft**
       SpaceID talinum, weights, fuel, capacity
    i. **Systems**
       systemID name, description, costUSD
    j. **Parts**
       partID name, description, costUSD
    k. **Suppliers**
       VendorID company, address, zip
    l. **Area Codes**
       Zip city state
    m. **Person**
       Pid fname, lname, birthday, staddress, zip, spouse

3. Why is it in 3NF?

   It is in first normal form (1NF) because each cell in the solution has at least one piece of data in it. Each of the columns names anticipates just one piece of data for every row, or otherwise it is null.

   It is in second normal form (2NF) because when looking at the functional dependencies there is not any that rely with one another. Also in addition to this each of the non-primary keys (foreign) that determine a primary key.

   It is in third normal form (3NF) because there are no transitive dependencies because each table is only one column in the primary key, or there are two primary key columns.

   The difference between the 3NF and BCNF is that the clause is a member of some key. The clause excuses a functional dependent if it is prime.

   It is in BCNF because…