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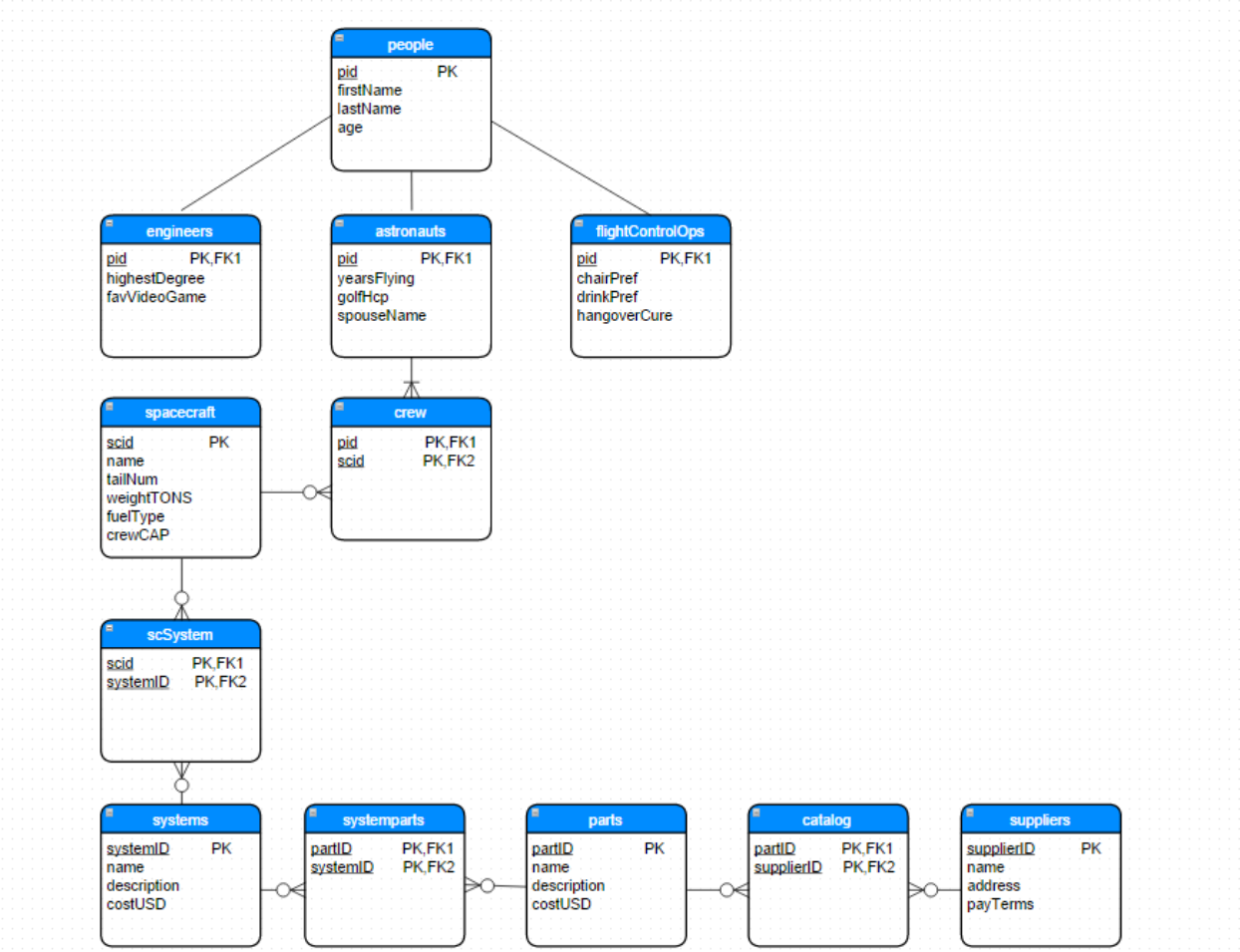
Database Systems

Lab 09

1. Functional Dependencies:
   People table: pid→firstName, lastName, age
   Engineers tables: pid→highestDegree, favVideoGame
   Astronauts Table: pid→yearsFlying, golfHcp,spouseName
   FlightControlOps Table: pid→chairPref,drinkPref,hangoverCure
   Spacecraft Table: scid→name, tailNum,weightTONS, fuelType,crewCap
   Systems Table: systemID→name, description, costUSD
   Parts Table: partID→name, description, costUSD
   Suppliers Table: supplierID→name, address, payTerms
   Catalog Table: partID, supplierID→
   SystemParts Table: partID,systemID→
   ScSystem Table: scid, systemID→
   Crew Table: pid, scid→



2.
3. I have no transitive functional dependency. I created a separate people table because engineers, astronauts, and flight control operators all have a first name, last name, and age. I also created a spacecraft system (ScSystem) for the a spacecraft having many systems. Also a system parts table for a system having many parts. This ensures that every non key attribute is solely dependent on the primary key and only the primary key.