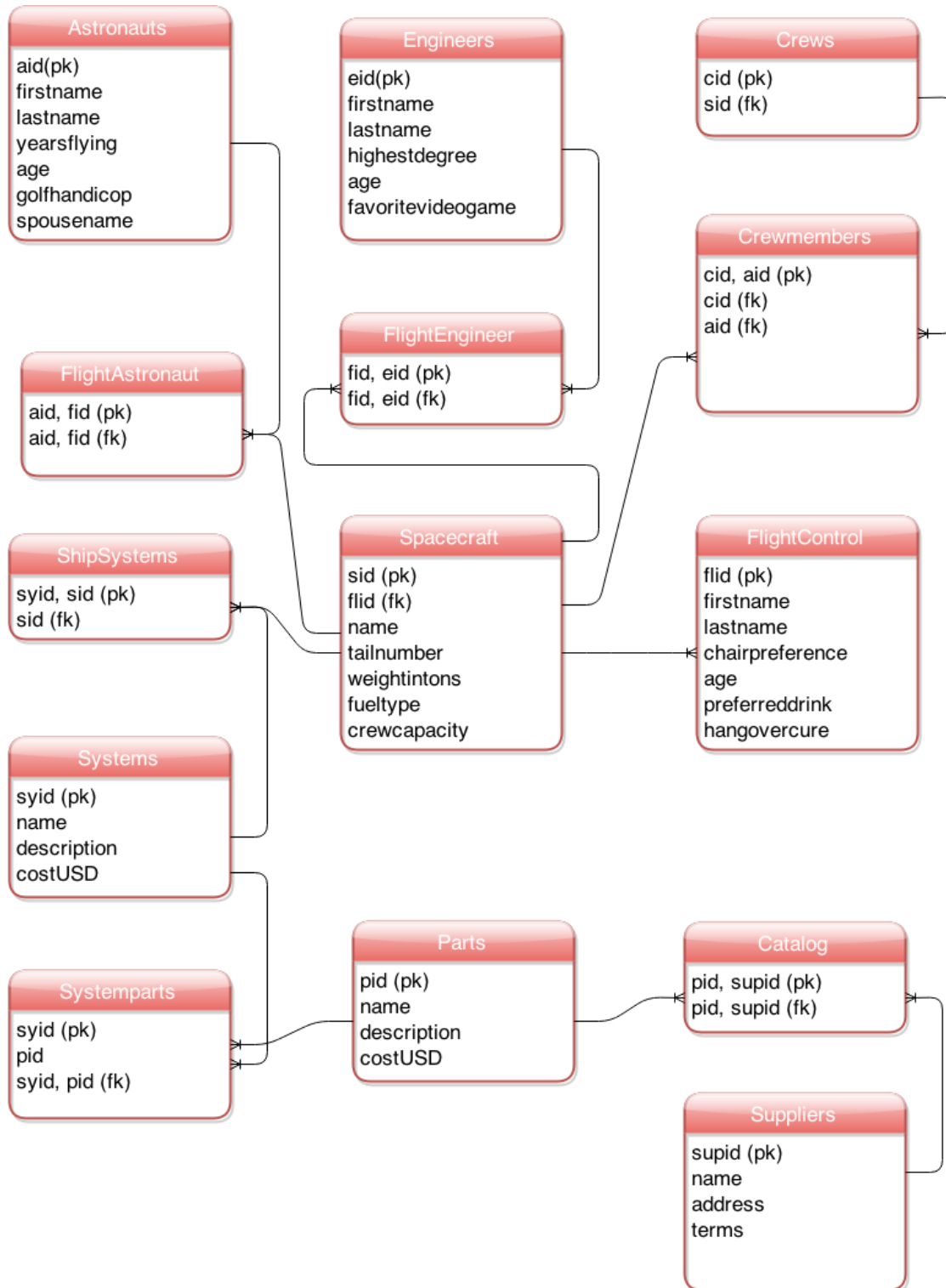


Nicholas Marengo

Database Management

Lab 9



Functional Dependencies:

Astronauts table

PK aid

aid - firstname, lastname, yearsflying, age, golfhandicap, spousesname

FlightAstronaut table

PK aid, fid

Engineers table

PK eid

Eid – firstname, lastname, highestdegree, age, favoritevideogame

FlightEngineers table

PK fid, eid

Crews table

PK cid

cid - sid

Crewmembers table

PK cid, aid

Flightcontrol table

PK flid

Flid – firstname, lastname, chairpreference, age, preferredrink, hangovercure

Spacecraft table

PK sid

Sid – name, tailnumber, weightintons, fueltype, crewcapacity

Shipsystems table

PK syid, sid

Sytems table

PK syid

Syid – name, description, costUSD

Parts table

PK pid

Pid – name, description, costUSD

Systemparts table

PK syid

Syid – pid

Catalog table

PK pid, supid

Suppliers table

PK supid

Supid – name, address, terms

This database is in 1stNF because the data in the tables are all atomic. It is also in 2ndNF because there are no partial dependencies, and in 3rdNF because there are no transitive functional dependencies. This means that no columns depend on any other columns besides the primary key. Furthermore, the attributes in each table only depend on that table's candidate keys.

