Alliyah Taylor
Lab 9
11|16|2016

1. Functional Dependencies

People

> PID → firstName, lastName, Age

Flight Control Operators

> PID→chairPreference, preferredDrink, hangoverCure

Engineers

> PID→highestDegree, favoriteGame

Astronauts

> PID-→yearsFlying, golfHandicap

Crew

> (PID,SID)→

Spacecraft

> SID→Name, tailNumber, weightTons, fuelType, crewCapacity

SystemsIn

> (SID, sysID)→

Systems

> sysID→Name, Description, costUSD

PartsIn

> (sysID, partsID)→
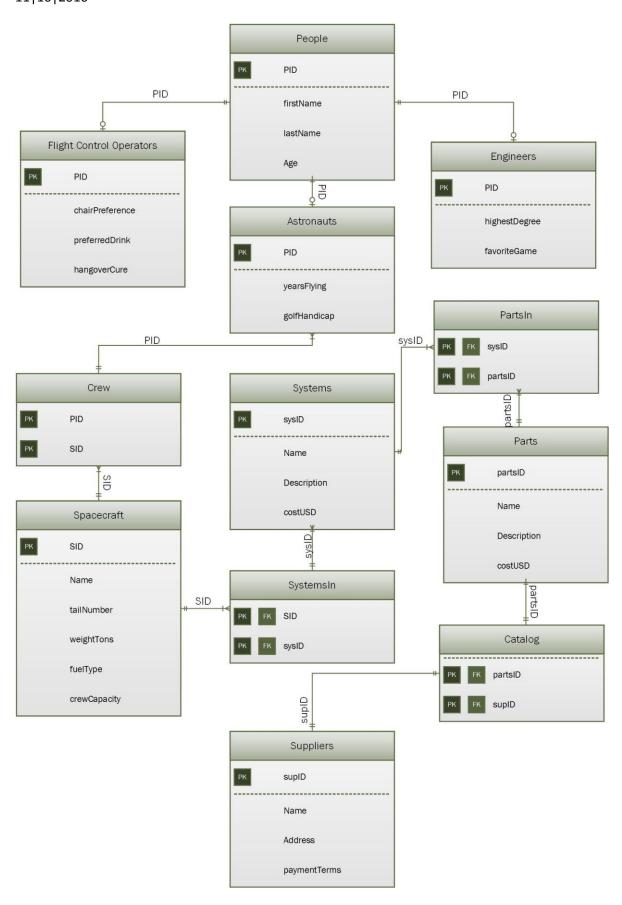
Parts

> partsID→Name, Description, costUSD

Catalog

> (partsID, supID)→

Suppliers

> supID→Name, Address, paymentTerms

2. The Diagram

People

PK | PID
- - -
firstName
lastName
Age

PID

PID

Flight Control Operators

PK | PID
- - -
chairPreference
preferredDrink
hangoverCure

PID

Engineers

PK | PID
- - -
highestDegree
favoriteGame

Astronauts

PK | PID
- - -
yearsFlying
golfHandicap

PID

PartsIn

PK | FK | sysID

PK | FK | partsID

sysID

partsID

Crew

PK | PID

PK | SID

SID

Systems

PK | sysID
- - -
Name
Description
costUSD

sysID

Parts

PK | partsID
- - -
Name
Description
costUSD

partsID

Spacecraft

PK | SID
- - -
Name
tailNumber
weightTons
fuelType
crewCapacity

SID

SystemsIn

PK | FK | SID

PK | FK | sysID

supID

Catalog
- - -
PK | FK | partsID

PK | FK | supID

partsID

Suppliers

PK | supID
- - -
Name
Address
paymentTerms

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3. The diagram is in 3NF because each every non-key attribute in each table is functionally dependent upon the entire primary key, and nothing else as illustrated by the functional dependencies.