

1. Functional Dependencies

1. People Table
 1. PeopleID \rightarrow FName, LName, Age
2. Engineers Table
 1. PeopleID \rightarrow Degree, VideoGame
3. Astronauts Table
 1. PeopleID \rightarrow Flying_Years, Golf_Handicap, Spouse
4. Flight_Control_Operators Table
 1. PeopleID \rightarrow Chair, Drink, Hangover_Cure
5. Crew Table
 1. CraftID \rightarrow PeopleID
6. Spacecraft Table
 1. CraftID \rightarrow Name, TailNum, Weight_Tons, Fuel, CrewCap
7. Space_Systems Table
 1. CraftID \rightarrow SysID
8. Systems Table
 1. SysID \rightarrow Description, costUSD
9. System_Parts Table
 1. SysID \rightarrow PartID
10. Parts Table
 1. PartID \rightarrow Name, Description, costUSD
11. Catalog Table
 1. SupID \rightarrow PartID
12. Suppliers Table
 1. SupID \rightarrow Name, Address, Terms

2. see Lab9ER.pdf

3. For a database to be in 3NF it must first be in 2NF. For a database to be in 2NF it must first be in 1NF. This database is in 1NF because all attributes ARE atomic and each attribute only contains a single value. This database is in 2NF because it is in 1NF and every thing is functionally dependent on its primary key. This database is in 3NF because it is in 2NF (and transitively 1NF) and every attribute is dependent on the one key the whole key and nothing but the key. so help me Codd.