Levi Sutton

Lab 4

**Functional Dependencies**

1. Functional Dependencies:

ProjectName is dependent on EmployeeName

1. Functional Dependencies:

Number is dependent on Name

Number is dependent on Dorm

Number is dependent on RoomType

RoomType is dependent on DormCost

Club is dependent on ClubCost

**Normalization**

1. Functional Dependencies:

Eid is dependent on Ename, Pid

Pid is dependent on Pname, Mid

Mid is dependent on Mname

1. Normalize to 3NF:

Table 1: Employee(Eid, Ename, Pid)

Table 2: Project(Pid, Pname, Mid)

Table 3: Manager(Mid, Mname)

1. Functional Dependencies:

PetName is dependent on Type, Breed, DOB, Owner, OwnerPhone

OwnerEmail is dependent on Owner, OwnerPhone

OwnerPhone is dependent on Owner, OwnerEmail

PetName, Date are dependent on Service, Charge

1. Normalize to 3NF:

Table 1: Owner(**OwnerPhone**, Owner, OwnerEmail)

Table 2: Pet(**PetName**, Type, Breed, DOB, OwnerPhone)

Table 3: Service(**PetName**, **Date**, Service, Charge)

1. 2NF
2. 1NF
3. 3NF
4. 1NF
5. 2NF
6. 3NF
7. 4NF
8. 3NF
9. 1NF
10. No, It violates the normalization Rule A, that refers to the no multi-valued attribute
11. No, It violates the normalization Rule C, that refers to dependencies between non-key attributes
12. Yes
13. No, It violates the normalization Rule C, that refers to dependencies between non-key attributes
14. No, It violates the normalization Rule B, that refers to not dependent on the whole primary key