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Professor Jamil

CS 360

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Assignment #4

1)

∏(PetID,Name,TypeofPet)(σ(City="Moscow"∧State="Idaho")((Pets)⋈((Owns)⋈(∏(OID)(σ(AnnualIncome=0)(Owners))))))

2)

∏(OID,LastName,PetID,Name)(((Pets)⋈(Owns)⋈(∏(OID,LastName)(Owners)))-((Pets)⋈(Owns)⋈(∏(OID,LastName,Street,City,ZipCode,State)(Owners))))

3)

(∏(PetID,Name)(Pets))-(∏(PetID,Name)((Pets)⋈(Likes)⋈(Purchases)⋈(∏(FoodID,TypeofFood)(Foods))))

4)

∏(PetID,`Pets.Name`,FoodID,`Foods.Name`,Brand)((ρ(Pets)(PetID,`Pets.Name`,p3,p4,p5,p6,p7,p8)(Pets))⋈((∏(PetID,OID)(Owns))⋈((∏(OID,FoodID)(Purchases))⋈(ρ(Foods)(FoodID,`Foods.Name`,Brand,f4,f5,f6,f7)(Foods)))))

5)

∏(FoodID,Brand,Price)((Foods)-(Foods)⋈(∏(FoodID)(σ(Brand=f3∧Price<f5)((Foods)⋈(ρ(Foods)(f1,f2,f3,f4,f5,f6,f7)(Foods))))))