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Project “Pawsome Pets” – Part 1

(a) Identify the main entity types

Entity	Description	Alias	Occurrence
Clinic	Clinics ran by the Pawsome Pets company where they do business		Each clinic employs several staff
Staff	Employees of Pawsome Pets	employees	Each employee works at a single clinic
Pet	Pets that receive some sort of care from a clinic		Each pet belongs to one owner
Owner	People who own pets that come to the clinics	hoomans	Each owner can have multiple pets
Examination	Each visit by a pet to a clinic involves an examination of their health		Each examination represents one visit by a pet to a clinic

(b) Identify the main relationships between the entity types identified in "a"

Entity	Relationship	Entity
Staff	Manages	Clinic
Clinic	Employs	Staff
Examination	Occurred at Performed by Performed on	Clinic Staff Pet
Owner	Owns	Pet

(c) Determine the multiplicity constraints for each relationship identified in "b"

Entity	multiplicity	Relationship	multiplicity	Entity	Type
Staff	0..1	Manages	1..1	Clinic	1:1
Clinic	1..1	Employs	1..Many	Staff	1:Many
Examination	1..1	Occurred at	1..1	Clinic	1:1
	1..1	Performed by	1..1	Staff	1:1
	1..1	Performed on	1..1	Pet	1:1
Owner	1..1	Owns	1..Many	Pet	1..Many

(d) Identify attributes and associate them with entity or relationship types

Entity/ Relationship	Attribute	Description	Data type	length	Multi- value	Null?
Staff	staffNo	Unique staff ID	Integer	11	No	No
	nameFirst	Staff first name	Varchar	32	No	No
	nameLast	Staff last name	Varchar	32	No	No
	addressStaff	Staff home address	Varchar	32	No	No
	phoneStaff	Staff phone number	Integer	10	No	No
	DOB	Staff date of birth	Date	1	No	No
	Position	Staff position in company	Varchar	32	No	No
	Salary	Staff salary	Integer	7	No	No
Clinic	clinicNo	Unique clinic ID	Integer	11	No	No
	nameClinic	Clinic name	Varchar	32	No	No
	addressClinic	Clinic street address	Varchar	32	No	No
	phoneClinic	Clinic phone number	Integer	10	No	No
Owner	ownerNo	Unique owner ID	Integer	11	No	No
	nameFirst	Owner first name	Varchar	32	No	No
	nameLast	Owner Last name	Varchar	32	No	No
	addressOwner	Owner street address	Varchar	32	No	No
	phoneOwner	Owner phone number	Integer	10	No	No
Pet	petNo	Unique pet ID	Integer	11	No	No
	namePet	Pet name	Varchar	32	No	No
	DOB	Pet date of birth	Date	1	No	No
	species	Pet Genus,species	Varchar	32	No	No
	breed	Pet breed/variety	Varchar	32	No	Yes
	color	Pet color	Varchar	32	No	No
Examination	examNo	Unique examination ID	Integer	11	No	No
	chiefComplaint	Main cause for visit	Varchar	256	No	No
	description	What was done in exam	Varchar	256	No	No
	dateSeen	Date of exam	Date	1	No	No
	actionsTaken	Result of exam	Varchar	256	No	No

(e) Determine candidate and primary key attributes for each (strong) entity type

Staff:

PK – (staffNo)

Clinic:

PK – (clinicNo)

CK – (nameClinic, addressClinic)

CK – (phoneClinic)

Owner:

PK – (ownerNo)

Pet:

PK – (petNo)

Examination:

PK – (examNo)

(f) Generate the E-R diagram for the conceptual level (no FKs as attributes)

