CIA3 – Pet Care and Veterinary System

# Microservice Architecture

This project implements two RESTful microservices using Node.js/Express and Firebase Firestore.

## Services

- Pet Service: CRUD for pets (name, species, breed, age, owner information).

- Appointment Service: CRUD for vet appointments, referencing pets.

## Data Store

Firebase Firestore is used for persistence. Local development uses the Firestore Emulator; production can use real Firestore with appropriate credentials.

# Containerization

Each microservice has its own Dockerfile. docker-compose orchestrates the services and the Firestore Emulator.

## Endpoints

Pet Service (http://localhost:3001):

- POST /pets

- GET /pets

- GET /pets/:id

- PUT /pets/:id

- DELETE /pets/:id

Appointment Service (http://localhost:3002):

- POST /appointments

- GET /appointments

- GET /appointments/:id

- PUT /appointments/:id

- DELETE /appointments/:id

# Kubernetes

Example manifests are provided under k8s/. Configure Firestore credentials or use cloud identity in your cluster.

# How to Run

1) docker compose up --build

2) Access services at http://localhost:3001 and http://localhost:3002

3) View Emulator UI at http://localhost:4000