#ifndef \_OWNER\_H\_

#define \_OWNER\_H\_

#include <string.h>

#include <fstream.h>

#include "pet.h"

class Pet;

class Owner

{ private:

char name[50];

Pet\* pet;

public:

Owner(char\* name);

void setPet(Pet\* pet);

friend ostream& operator<<(ostream& outStrm, Owner& owner);

};

inline Owner::Owner(char\* name) { strcpy(this->name, name); }

inline void Owner::setPet(Pet\* pet) { this->pet = pet; }

inline ostream& operator<<(ostream& outStrm, Owner& owner)

{

outStrm << owner.name << " owns " << \*owner.pet;

return outStrm;

}

#endif

#ifndef \_PET\_H\_

#define \_PET\_H\_

#include <string.h>

#include <fstream.h>

#include "owner.h"

class Owner;

class Pet

{ private:

char name[50];

Owner\* owner;

public:

Pet(char\* name) { strcpy(this->name, name); }

Void setOwner(Owner\* owner) { this->owner = owner; }

friend ostream& operator<<(ostream& outStrm, Pet& pet)

{

outStrm << "Pet Name: " << pet.name;

return outStrm;

}

};

#endif

#ifndef \_DOG\_H\_

#define \_DOG\_H\_

#include <fstream.h>

#include "pet.h"

#include "date.h"

class Dog : public Pet

{ private:

Date\* shots; // aggregation

Date fixed; // composition

int akcNum;

public:

Dog(char\* name, int akcNum, int year, int month, int days) : Pet(name), fixed(year, month, days)

{

this->akcNum = akcNum;

}

void setShots(int year, int month, int days)

{

shots = new Date(year, month, days);

}

friend ostream& operator<<(ostream& outStrm, Dog& dog)

{

outStrm << (Pet)dog << " AKC Number: " << dog.akcNum <<

" Fixed On: " << dog.fixed << " Last Rabies Shot on: " << \*dog.shots;

return outStrm;

}

};

#endif

#ifndef \_FISH\_H\_

#define \_FISH\_H\_

#include <fstream.h>

#include "pet.h"

class Fish : public Pet

{ private:

int color;

public:

Fish(char\* name, int color) : Pet(name) { this->color = color; };

friend ostream& operator<<(ostream& outStrm, Fish& fish)

{

outStrm << "Color: " << fish.color;

return outStrm;

}

};

#endif

#ifndef \_DATE\_H\_

#define \_DATE\_H\_

#include <fstream.h>

class Date

{ private:

int year;

int month;

int day;

public:

Date(int year, int month, int day)

{

this->year = year;

this->month = month;

this->day = day;

}

friend ostream& operator<<(ostream& outStrm, Date& date)

{

outStrm << date.year << "/" << date.month << "/" << date.day;

return outStrm;

}

};

#endif

#include "owner.h"

#include "pet.h"

#include "fish.h"

#include "dog.h"

#include "date.h"

int main(void)

{ Dog myPet("wally", 300, 2002, 6, 24);

Owner theOwner("jack");

myPet.setShots(2002, 9, 1);

myPet.setOwner(&theOwner);

theOwner.setPet(&myPet);

cout << theOwner << endl;

cout << myPet << endl;

return 0;

}