```cpp
#ifndef ANIMAL_H
#define ANIMAL_H

#include <string>
class Animal {
public:
	Animal() {};  // default constructor
	Animal(std::string name, int weight, int numOfLegs);    // constructor

	std::string getName();
	int getWeight();
	int getNum_leg();

	void setName(std::string name);
	void setWeight(int weight);
	void setNum_leg(int numOfLegs);

	virtual std::string getSound();
	virtual std::string getDescription();

private:
	std::string name;
	int weight;
	int numOfLegs;
};
#endif

#ifndef CHICKEN_H
#define CHICKEN_H

#include <string>
#include "Animal.h"

class Chicken : public Animal{
public:
	Chicken(std::string name, int weight, int numOfLegs, int numOfBeaks);
	int get_numOfBeaks();
	void set_numOfBeaks(int numOfBeaks);

	virtual std::string getSound();
	virtual std::string getDescription();
private:
	int numOfBeaks;
};

Chicken::Chicken(std::string name, int weight, int num_leg, int num_beaks) : Animal(name,
weight, num_leg){
	this->numOfBeaks = num_beaks;
}

std::string Chicken::getSound(){
	return "WRA, WRA, WROW, WROA, WRO";
}

int Chicken::get_numOfBeaks(){
	return numOfBeaks;
}
```

```
void Chicken::set_numOfBeaks(int num_beaks){
	this->numOfBeaks = num_beaks;
}

std::string Chicken::getDescription(){
	std::string a = "The Chicken's name is " + Animal::getName() + "\n";
	std::string b = "It weights " + std::to_string(Animal::getWeight()) + " lb" +
"\n";
	std::string c = "It has " + std::to_string(Animal::getNum_leg()) + " legs" + "\n";
	std::string d = "It has " + std::to_string(numOfBeaks) + " beaks" + "\n";
	std::string e = "Its sound is " + getSound() + "\n";
	std::string total = a + b + c + d + e;
	return (total);
}

#endif

#include <iostream>
#include "Animal.h"

using namespace std;

Animal::Animal(string name, int weight, int num_leg){                //initialize
constructor
	this->name = name;
	this->weight = weight;
	this->numOfLegs = num_leg;
}

string Animal::getSound(){
	return "Animal- have this sound";
}

string Animal::getDescription(){
	return "This Animal's Description";
}

string Animal::getName(){
	return name;
}

int Animal::getWeight(){
	return weight;
}

int Animal::getNum_leg(){
	return numOfLegs;
}

void Animal::setName(string name){
	this->name = name;
}

void Animal::setWeight(int weight){
	this->weight = weight;
}

void Animal::setNum_leg(int num_leg){
```

```
        this->numOfLegs = num_leg;
}

#include <iostream>
#include <string>
#include "Animal.h"
#include "Dog.h"
#include "Fish.h"
#include "Chicken.h"
#include "Spider.h"

#include "list.h"

using namespace std;

void problem2(){
        Animal *d1 = new Dog("Pupu", 5, 4, 4); // A dog object
        cout << d1->getDescription() << endl;
        Animal *f1 = new Fish("fish beauty", 12, 0, 2); // A Fish object
        cout << f1->getDescription() << endl;
        Animal *c1 = new Chicken("Opla", 24, 2, 1);// A Chicken Object
        cout << c1->getDescription() << endl;
        Animal *s1 = new Spider("Spider Man", 10, 8, false);// A Spider object
        cout << s1->getDescription() << endl;

        // part b. Implementing a list from problem 1 to add certain animals.
        List<Animal>* animal_list = new List<Animal>();
        Animal a[4] = { *d1, *f1, *c1, *s1 };
        for (int i : {0, 1, 2, 3}){
                animal_list->insert(a[i]);
        }

        //cout << animal_list->first() << endl;

        //cout << "this is the first animal " <<  << endl;
        // Tranverse the list and print out all description of each animal in the list

}
```