C++ Programming	Student number	21600193
Homework 7	Name	Kim, Hyo Rim

1. Comments

1) Animal.cpp & Animal.h

Define the attributes that apply equally to both Carnivore and Herbivore.

2) Carnivore.cpp & Carnivore.h & Herbivore.cpp & Herbivore.h

Inherit the animal's attributes and add properties for each type.

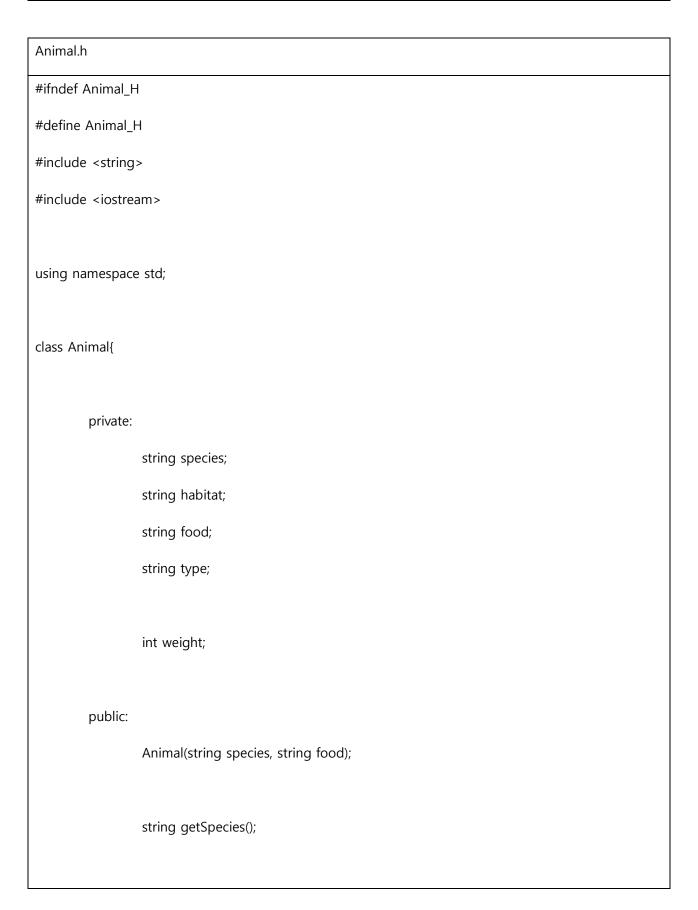
3) Main.cpp

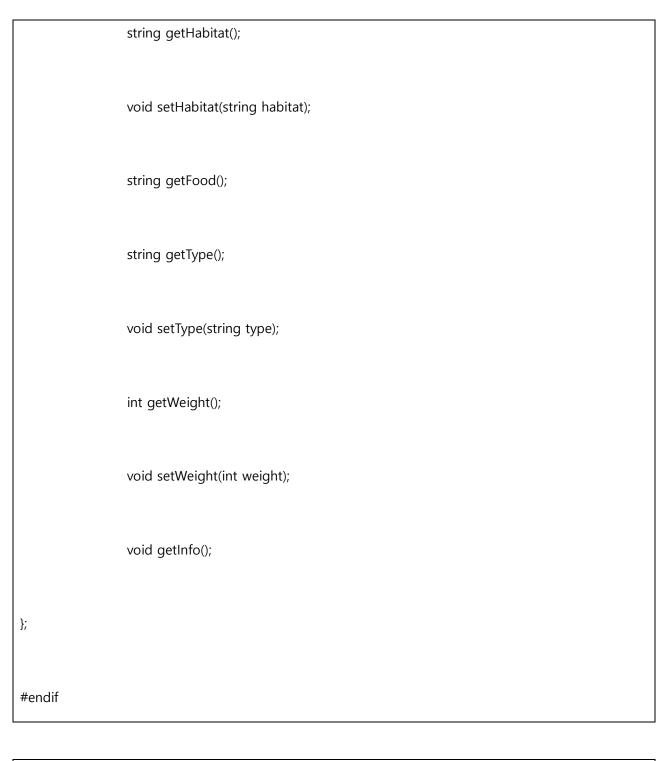
Use the library to access each animal type, define attributes, and then print.

2. Code

```
return this->habitat;
}
void Animal::setHabitat(string habitat){
         this->habitat = habitat;
}
string Animal::getFood(){
         return this->food;
}
string Animal::getType(){
         return this->type;
}
void Animal::setType(string type){
         this->type = type;
}
int Animal::getWeight(){
         return this->weight;
}
void Animal::setWeight(int weight){
         this->weight = weight;
}
void Animal::getInfo(){
         cout << "I eat " << food << endl;
         cout << "I am a "<< species <<endl;
         cout << "I weight " << weight < < endl;</pre>
         cout << "I live in the "<< habitat <<endl;
         cout < < species < < " was fed well with " << food < < endl;
```

```
cout < < species < < " was trained in " << type < < endl;
}
```





Carnivore.cpp
#include <iostream></iostream>
#include <string></string>
#include "Animal.h"
#include "Carnivore.h"

```
using namespace std;
                 Carnivore::Carnivore():Animal("Carnivore", "Meat"){
                          cout << "This is Carnivore constructor" << endl;</pre>
                 }
                 Carnivore::~Carnivore(){cout<<"";}</pre>
                 void Carnivore::getInfo(){
                          cout << "I am a " << name <<endl;
                          Animal::getInfo();
                 }
                 void Carnivore::setName(string name){
                          this->name = name;
                 }
```

Carnivore.h		
#ifndef Carnivore_H		
#define Carnivore_H		
#include <iostream></iostream>		
#include <string></string>		
#include "Animal.h"		
using namespace	e std;	
- ,		
class Carnivore:public Animal{		
private:		
private.	string name;	
	string name,	
به العاديد		
public:		
	Carnivore();	
	~Carnivore();	
	void getInfo();	
	void setName(string name);	
} ;		

#endif

```
Herbivore.cpp
#include <iostream>
#include <string>
#include "Animal.h"
#include "Herbivore.h"
using namespace std;
                 Herbivore::Herbivore():Animal("Herbivore", "Grass"){
                          cout << "This is Herbivore constructor" << endl;</pre>
                 }
                 Herbivore::~Herbivore(){cout<<"";}
                 void Herbivore::getInfo(){
                          cout << "I am a " << name <<endl;
                          Animal::getInfo();
```

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

```
Herbivore.h
#ifndef Herbivore_H
#define Herbiivore_H
#include <iostream>
#include <string>
#include "Animal.h"
using namespace std;
class Herbivore:public Animal{
        private:
                 string name;
        public:
                 Herbivore();
                 ~Herbivore();
```

```
void getInfo();

void setName(string name);

};

#endif
```

```
Main.cpp
#include "Carnivore.h"
#include "Herbivore.h"
#include <iostream>
#include <string>
using namespace std;
int main(){
        Carnivore animalOne = Carnivore();
        animalOne.setName("Tiger");
        animalOne.setWeight(80);
        animalOne.setHabitat("Mountain");
        animalOne.setType("axe throwing");
        animalOne.getInfo();
        cout << endl;
        Herbivore animalTwo = Herbivore();
        animalTwo.setName("Deer");
        animalTwo.setWeight(40);
        animalTwo.setHabitat("Savanna");
```

```
animalTwo.setType("Juggling");
animalTwo.getInfo();
system("pause");
return 0;
}
```

3. Result

```
Hyorm@HYorm:/mnt/c/Users/Hyo RIM Kim/Documents/한동대학교/Git/17-2-1-/HW7$ Is
Animal.cpp Animal.h Carnivore.cpp Carnivore.h Herbivore.cpp Herbivore.h Main.cpp
Hyorm@HYorm:/mnt/c/Users/Hyo RIM Kim/Documents/한동대학교/Git/17-2-1-/HW7$ g++ -o main *.cpp
Hyorm@HYorm:/mnt/c/Users/Hyo RIM Kim/Documents/한동대학교/Git/17-2-1-/HW7$ ./main
This is Animal Class Contructor
This is Carnivore constructor
I am a Tiger
I eat Meat
I am a Carnivore
I weight 80
I live in the Mountain
Carnivore was fed well with Meat
Carnivore was trained in axe throwing

This is Animal Class Contructor
This is Herbivore constructor
I am a Deer
I eat Grass
I am a Herbivore
I weight 40
I live in the Savanna
Herbivore was fed well with Grass
Herbivore was trained in Juggling
Hyorm@HYorm:/mnt/c/Users/Hyo RIM Kim/Documents/한동대학교/Git/17-2-1-/HW7$
```