My Project

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Chapter 1

Hierarchical Index

1.1 Class Hierarchy

This inheritance list is sorted roughly, but not completely, alphabetically:

Animal	 	 Ę
Dog	 	 7
Snake	 	 ç
DangerousSnake	 	 7
NonDangerousSnake	 	 8
Python	 	 ç

2 Hierarchical Index

Chapter 2

Class Index

2.1 Class List

Here are the classes, structs, unions and interfaces with brief descriptions:

Animal	Ę
DangerousSnake	7
Dog	7
NonDangerousSnake	8
Python	
Snake	ç

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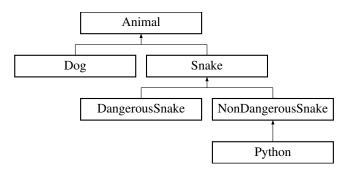
Chapter 3

Class Documentation

3.1 Animal Class Reference

#include <animal.h>

Inheritance diagram for Animal:



Public Member Functions

- Animal (const unsigned int a, const double w)
- Animal ()
- virtual void speak () const =0
- · virtual void info () const noexcept
- virtual ∼Animal ()

3.1.1 Detailed Description

Base class for animals. Each new animal should derive from this class and override speak () which is pure virtual.

3.1.2 Constructor & Destructor Documentation

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```
3.1.2.1 Animal() [1/2]
```

```
Animal::Animal (  \mbox{const unsigned int $a$,}   \mbox{const double $w$ )}
```

Animal Constructor. Takes a for the age and w for the weight.

```
3.1.2.2 Animal() [2/2] Animal::Animal ()
```

Deafult constructor. Set all attributes to zero.

```
3.1.2.3 ~Animal()
virtual Animal::~Animal ( ) [inline], [virtual]
```

Destructor. It does anything but is set virtual to ensure proper cleanup of the data that will be defined in the derived classes.

3.1.3 Member Function Documentation

```
3.1.3.1 info()
```

```
void Animal::info ( ) const [virtual], [noexcept]
```

print animal's details

Reimplemented in Snake.

```
3.1.3.2 speak()
```

```
virtual void Animal::speak ( ) const [pure virtual]
```

print on stdout the animal's call

Implemented in Snake, and Dog.

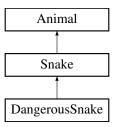
The documentation for this class was generated from the following files:

- include/animal.h
- src/animal.cc

3.2 DangerousSnake Class Reference

#include <snake.h>

Inheritance diagram for DangerousSnake:



Public Member Functions

• DangerousSnake (const unsigned int a, const double w)

3.2.1 Detailed Description

Specialization of class Snake. It specialize the constructors such that the attribute dangerous is set to true

The documentation for this class was generated from the following file:

· include/snake.h

3.3 Dog Class Reference

#include <dog.h>

Inheritance diagram for Dog:



Public Member Functions

- void speak () const noexcept override
- Dog ()=default
- Dog (const unsigned int a, const double d)

3.3.1 Detailed Description

Specialization of class Animal. It simply overrides the function speak.

8 Class Documentation

3.3.2 Constructor & Destructor Documentation

```
3.3.2.1 Dog() [1/2] Dog::Dog ( ) [default]
```

Default constructor is fine. It will call the default constructor of Animal.

Delegating constructor to build an Animal{a,b}

3.3.3 Member Function Documentation

```
3.3.3.1 speak()
void Dog::speak ( ) const [override], [virtual], [noexcept]
```

Implements Animal.

A dog usually says "Bau"

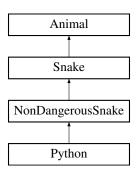
The documentation for this class was generated from the following files:

- include/dog.h
- src/dog.cc

3.4 NonDangerousSnake Class Reference

```
#include <snake.h>
```

Inheritance diagram for NonDangerousSnake:



Public Member Functions

• NonDangerousSnake (const unsigned int a, const double w)

3.4.1 Detailed Description

Specialization of class Snake. It specialize the constructors such that the attribute dangerous is set to false.

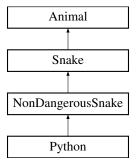
The documentation for this class was generated from the following file:

• include/snake.h

3.5 Python Struct Reference

#include <snake.h>

Inheritance diagram for Python:



Additional Inherited Members

3.5.1 Detailed Description

Define the type Python

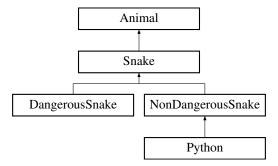
The documentation for this struct was generated from the following file:

· include/snake.h

3.6 Snake Class Reference

#include <snake.h>

Inheritance diagram for Snake:



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Public Member Functions

- Snake (const unsigned int a, const double w, const bool b)
- Snake (const bool b)
- · void info () const noexcept override
- · void speak () const noexcept override

3.6.1 Detailed Description

Base class for snakes. It specializes into DangerousSnake and NonDangerousSnake. It is derived from class Animal and add a boolean Snake::dangerous to specify if a type of snake is dangerous or not.

3.6.2 Constructor & Destructor Documentation

Constructor. Takes all the arguments to construct an Animal plus the additional boolean

Calls the default constructor for Animal, and the dangerous is set to b

3.6.3 Member Function Documentation

```
3.6.3.1 info()
void Snake::info ( ) const [override], [virtual], [noexcept]
Print details.
```

Reimplemented from Animal.

```
3.6.3.2 speak()
void Snake::speak ( ) const [override], [virtual], [noexcept]
Snake's call
```

The documentation for this class was generated from the following files:

- · include/snake.h
- · src/snake.cc

Implements Animal.

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