

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	5
Dog	7
Snake	9
DangerousSnake	6
NonDangerousSnake	8
Python	9

Chapter 2

Class Index

2.1 Class List

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

Animal	5
DangerousSnake	6
Dog	7
NonDangerousSnake	8
Python	9
Snake	9

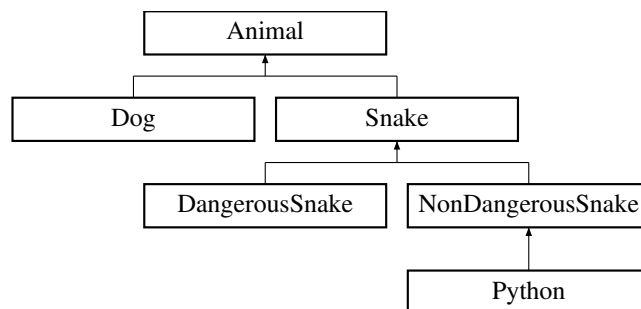
Chapter 3

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

3.1.2.1 [Animal::Animal](#) (const unsigned int a, const double w)

[Animal](#) Constructor. Takes [a](#) for the age and [w](#) for the weight.

3.1.2.2 `Animal::Animal ()`

Default constructor. Set all attributes to zero.

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

print animal's details

Reimplemented in [Snake](#).

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

print on stdout the animal's call

Implemented in [Snake](#), and [Dog](#).

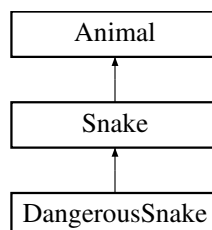
The documentation for this class was generated from the following files:

- `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`

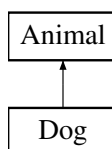
The documentation for this class was generated from the following file:

- `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`.

3.3.2 Constructor & Destructor Documentation

3.3.2.1 `Dog::Dog () [default]`

Default constructor is fine. It will call the default constructor of [Animal](#).

3.3.2.2 `Dog::Dog (const unsigned int a, const double d)`

Delegating constructor to build an [Animal](#){a,b}

3.3.3 Member Function Documentation

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

A dog usually says "Bau"

Implements [Animal](#).

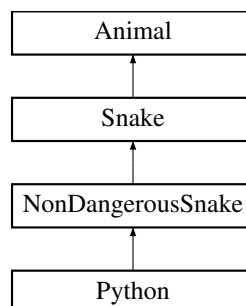
The documentation for this class was generated from the following files:

- `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.

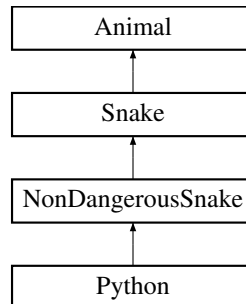
The documentation for this class was generated from the following file:

- `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](#)

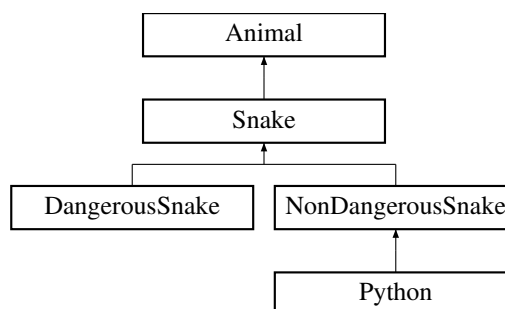
The documentation for this struct was generated from the following file:

- include/snake.h

3.6 Snake Class Reference

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

Inheritance diagram for Snake:



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

3.6.2.1 `Snake::Snake (const unsigned int a, const double w, const bool b)`

Constructor. Takes all the arguments to construct an [Animal](#) plus the additional boolean

3.6.2.2 `Snake::Snake (const bool b)`

Calls the default constructor for [Animal](#), and the `dangerous` is set to `b`

3.6.3 Member Function Documentation

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

Print details.

Reimplemented from [Animal](#).

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

[Snake's](#) call

Implements [Animal](#).

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

- `include/snake.h`
- `src/snake.cc`

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- Animal, [5](#)
 - ~Animal, [6](#)
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 - info, [6](#)
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- DangerousSnake, [6](#)
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