My Project

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Chapter 1

Class Index

1.1 Class List

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

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: Factorial class 5

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Chapter 2

File Index

2.1 File List

Here is a list of all documented files with brief descriptions:

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hello.h 9
runme.h 10

Chapter 3

Class Documentation

3.1 Factorial Class Reference

Factorial class.

`#include <factorial.h>`

Public Member Functions

- long long getFactorial (int n)
  Calculates factorial.

3.1.1 Detailed Description

Factorial class.

Class to generate the factorial of a given number.

3.1.2 Member Function Documentation

3.1.2.1 getFactorial()

```
long long Factorial::getFactorial (
            int n)
```

Calculates factorial.

Calculates factorial of a given natural number n by multiplying it by (n - 1), (n - 2) and so on untill (n - (n - 1)).

Parameters

n	number.

Returns

factorial of n.

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

- factorial.h
- factorial.cpp

3.2 Fibonacci Class Reference

Fibonacci class.

`#include <fibonacci.h>`

Public Member Functions

- std::vector< int > getFibonacci (int n)
  Calculates Fibonacci sequence.

3.2.1 Detailed Description

Fibonacci class.

Class to generate the Fibonacci sequence of a given number.

3.2.2 Member Function Documentation

3.2.2.1 getFibonacci()

```
std::vector< int > Fibonacci::getFibonacci (
            int n)
```

Calculates Fibonacci sequence.

Calculates Fibonacci sequance for a given number n using formulae:

F_0 = 0, F_1 = 1 F_n = F_{n-1} + F_{n-2} for any given natural n > 1.

Parameters

n	number.

Returns

Fibonacci sequence for n.

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

- fibonacci.h
- fibonacci.cpp

3.3 Hello Class Reference

Class to say hello.

`#include <hello.h>`

Public Member Functions

- Hello (std::string line)

  Main constructor for the class Hello.
- void sayHello ()

  Says hello.

3.3.1 Detailed Description

Class to say hello.

This class prints Hello line initialized through a constructor param to text output.

3.3.2 Constructor & Destructor Documentation

3.3.2.1 Hello()

```
Hello::Hello (
            std::string line)
```

Main constructor for the class Hello.

Parameters

line	line of text to be stored and printed.

3.3.3 Member Function Documentation

3.3.3.1 sayHello()

```
void Hello::sayHello ()
```

Says hello.

Prints the line value to the text output.

Returns

void.

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

- hello.h
- hello.cpp

Chapter 4

File Documentation

4.1 factorial.h

```
00001 #ifndef factorial_h
00002 #define factorial_h
00003
00009 class Factorial {
00010
00011 public:
00023     long long getFactorial(int n);
00024 };
00025
00026 #endif
```

4.2 fibonacci.h

```
00001 #ifndef fibonacci_h
00002 #define fibonacci_h
00003
00004 #include <vector>
00005
00011 class Fibonacci {
00012
00013 public:
00029     std::vector<int> getFibonacci(int n);
00030 };
00031
00032 #endif
00033
```

4.3 hello.h

```
00001 #ifndef hello_h
00002 #define hello_h
00003
00004 #include <string>
00005 #include <iostream>
00006
00013 class Hello {
00014
00015 private:
00021     std::string line;
00022
00023 public:
00029     Hello(std::string line);
00030
00038     void sayHello();
00039 };
00040
00041 #endif
00042
```

4.4 runme.h

```
00001 #ifndef runme_h
00002 #define runme_h
00003
00004 #include <iostream>
00005 #include <vector>
00006
00007 #define print(x) std::cout « x « " ";
00008 #define println(x) std::cout « x « std::endl;
00009 #define repeatIndexed(x) for(int i = 0; i < x; ++i)
00010
00011 #endif
```

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