Lista

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Chapter 1

Hierarchical Index

1.1 Class Hierarchy

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

IList< E > 7
List< E > 8
Main_timer 11
Timer 13
Node< E > 12

Chapter 2

Class Index

2.1 Class List

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

IList< **E** >
: Interfejs listy 7

List< **E** >
: Klasa listy 8

Main_timer 11

Node< **E** >
: Klasa węzła listy 12

Timer 13

Chapter 3

File Index

3.1 File List

Here is a list of all files with brief descriptions:

list.hh 15
list1.hh 15
maintimer.hh 15
test.cpp 15
timer.hh 16

Chapter 4

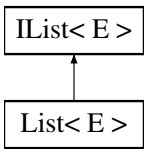
Class Documentation

4.1 IList< E > Class Template Reference

Interfejs listy.

`#include <list.hh>`

Inheritance diagram for IList< E >:



Public Member Functions

- virtual void **add** (const E &elem, int i)=0
- virtual E **remove** (int i)=0
- virtual int **size** ()=0
- virtual ~**IList** ()

4.1.1 Detailed Description

template<typename E>class IList< E >

Interfejs listy.

Zawiera metody umożliwiające operacje na liście.

Definition at line 10 of file list.hh.

4.1.2 Constructor & Destructor Documentation

4.1.2.1 template<typename E > virtual IList< E >::~IList ( ) [inline], [virtual]

Definition at line 17 of file list.hh.

4.1.3 Member Function Documentation

4.1.3.1 template<typename E > virtual void IList< E >::add (const E & *elem,* int *i*) [pure virtual]

Implemented in **List**< **E** > (p. 9).

4.1.3.2 template<typename E > virtual E IList< E >::remove (int *i*) [pure virtual]

Implemented in **List**< **E** > (p. 9).

4.1.3.3 template<typename E > virtual int IList< E >::size ( ) [pure virtual]

Implemented in **List**< **E** > (p. 9).

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

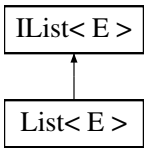
- **list.hh**

4.2 List< E > Class Template Reference

Klasa listy.

`#include <list1.hh>`

Inheritance diagram for List< E >:



Public Member Functions

- **List** ()
- ~**List** ()
- void **add** (const E &elem, int i)
- E **remove** (int i)
- int **size** ()
- void **show_list** ()
- void **test_on** (int numbers)

Private Attributes

- **Node**< E > * **front**
- **Node**< E > * **end**
- int **list_size** =0

4.2.1 Detailed Description

template<typename E>class List< E >

Klasa listy.

Zawiera metody umożliwiające operacje na liście.

Definition at line 9 of file list1.hh.

4.2.2 Constructor & Destructor Documentation

4.2.2.1 template<typename E> List< E >::List ( ) [inline]

Definition at line 42 of file list1.hh.

4.2.2.2 template<typename E> List< E >::~List ( ) [inline]

Definition at line 46 of file list1.hh.

4.2.3 Member Function Documentation

4.2.3.1 template<typename E > void List< E >::add (const E & *elem*, int *i*) [virtual]

Funkcja dodająca element do listy

Parameters

in	*element*	typu E
in	*pozycja*	i

Implements **IList< E >** (p. 8).

Definition at line 92 of file list1.hh.

4.2.3.2 template<typename E > E List< E >::remove (int *i*) [virtual]

Funkcja usuwająca element z listy Wyrzuca wyjątek EmptyListException jeśli lista jest pusta oraz WrongIndex↩ Exception jeśli wybrano zły indeks.

Returns

Element typu E

Implements **IList< E >** (p. 8).

Definition at line 133 of file list1.hh.

4.2.3.3 template<typename E > void List< E >::show_list ( )

Funkcja wyświetlająca listę

Definition at line 195 of file list1.hh.

4.2.3.4 template<typename E > int List< E >::size ( ) [virtual]

Funkcja zwracająca rozmiar listy

Returns

Rozmiar kolejki typu int

Implements **IList< E >** (p. 8).

Definition at line 190 of file list1.hh.

4.2.3.5 template<typename E > void List< E >::test_on (int *numbers*)

Funkcja testująca kolejkę

Parameters

in	*liczba*	elementów do wpisania

Definition at line 210 of file list1.hh.

4.2.4 Member Data Documentation

4.2.4.1 template<typename E> Node<E>* List< E >::end [private]

Wskaźnik na koniec listy

Definition at line 38 of file list1.hh.

4.2.4.2 template<typename E> Node<E>* List< E >::front [private]

Wskaźnik na początek listy

Definition at line 37 of file list1.hh.

4.2.4.3 template<typename E> int List< E >::list_size =0 [private]

Rozmiar listy

Definition at line 39 of file list1.hh.

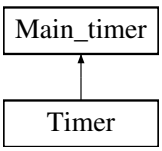
The documentation for this class was generated from the following file:

- **list1.hh**

4.3 Main_timer Class Reference

`#include <maintimer.hh>`

Inheritance diagram for Main_timer:



Public Member Functions

- virtual long double **get_ms_time** ()=0
- virtual void **tim_start** ()=0
- virtual void **tim_stop** ()=0
- virtual long double **return_time** ()=0
- virtual ~**Main_timer** ()

4.3.1 Detailed Description

Definition at line 4 of file maintimer.hh.

4.3.2 Constructor & Destructor Documentation

4.3.2.1 virtual Main_timer::~Main_timer ( ) [inline], [virtual]

Definition at line 11 of file maintimer.hh.

4.3.3 Member Function Documentation

4.3.3.1 virtual long double Main_timer::get_ms_time ( ) [pure virtual]

Implemented in **Timer** (p. 14).

4.3.3.2 virtual long double Main_timer::return_time ( ) [pure virtual]

Implemented in **Timer** (p. 14).

4.3.3.3 virtual void Main_timer::tim_start ( ) [pure virtual]

Implemented in **Timer** (p. 14).

4.3.3.4 virtual void Main_timer::tim_stop ( ) [pure virtual]

Implemented in **Timer** (p. 14).

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

- **maintimer.hh**

4.4 Node< E > Class Template Reference

Klasa węzła listy.

`#include <list1.hh>`

Private Attributes

- E **elem**
- **Node**< E > * **next**

Friends

- class **List**< **E** >

4.4.1 Detailed Description

template<**typename E**>**class Node**< **E** >

Klasa węzła listy.

Zawiera element węzła oraz wskaźnik na następny węzeł.

Definition at line 7 of file list1.hh.

4.4.2 Friends And Related Function Documentation

4.4.2.1 template<typename E> friend class List< E > [friend]

Definition at line 19 of file list1.hh.

4.4.3 Member Data Documentation

4.4.3.1 template<typename E> E Node< E >::elem [private]

Element listy

Definition at line 22 of file list1.hh.

4.4.3.2 template<typename E> Node<E>* Node< E >::next [private]

Wskaźnik na kolejny węzeł

Definition at line 23 of file list1.hh.

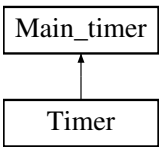
The documentation for this class was generated from the following file:

- **list1.hh**

4.5 Timer Class Reference

`#include <timer.hh>`

Inheritance diagram for Timer:



Public Member Functions

- long double **get_ms_time** ()
- void **tim_start** ()
- void **tim_stop** ()
- long double **return_time** ()
- ~**Timer** ()

Private Attributes

- long double **time_of_start**
- long double **time_of_stop**

4.5.1 Detailed Description

Definition at line 6 of file timer.hh.

4.5.2 Constructor & Destructor Documentation

4.5.2.1 Timer::~Timer ( ) [inline]

Definition at line 16 of file timer.hh.

4.5.3 Member Function Documentation

4.5.3.1 long double Timer::get_ms_time ( ) [virtual]

Implements **Main_timer** (p. 12).

Definition at line 20 of file timer.hh.

4.5.3.2 long double Timer::return_time ( ) [virtual]

Implements **Main_timer** (p. 12).

Definition at line 42 of file timer.hh.

4.5.3.3 void Timer::tim_start ( ) [virtual]

Implements **Main_timer** (p. 12).

Definition at line 30 of file timer.hh.

4.5.3.4 void Timer::tim_stop ( ) [virtual]

Implements **Main_timer** (p. 12).

Definition at line 36 of file timer.hh.

4.5.4 Member Data Documentation

4.5.4.1 long double Timer::time_of_start [private]

Definition at line 8 of file timer.hh.

4.5.4.2 long double Timer::time_of_stop [private]

Definition at line 9 of file timer.hh.

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

- **timer.hh**

Chapter 5

File Documentation

5.1 list.hh File Reference

Classes

- class **IList**< **E** >
  Interfejs listy.

5.2 list1.hh File Reference

```
#include "list.hh"
#include "timer.hh"
```

Classes

- class **Node**< **E** >
  Klasa węzła listy.
- class **List**< **E** >
  Klasa listy.
- class **Node**< **E** >
  Klasa węzła listy.
- class **List**< **E** >
  Klasa listy.

5.3 maintimer.hh File Reference

Classes

- class **Main_timer**

5.4 test.cpp File Reference

```
#include <iostream>
```

```
#include "list.hh"
#include "list1.hh"
#include "timer.hh"
```

Functions

- int **main** ()

5.4.1 Function Documentation

5.4.1.1 int main ( )

Definition at line 6 of file test.cpp.

5.5 timer.hh File Reference

```
#include <sys/time.h>
#include "maintimer.hh"
```

Classes

- class **Timer**

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