Algorytmy powiększające tablice

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Chapter 1

Hierarchical Index

1.1 Class Hierarchy

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

DataStructure 11
- Arr_first_type 7
- Arr_second_type 8
- Arr_third_type 10

Main_timer 12
- Timer 13

Chapter 2

Class Index

2.1 Class List

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

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Klasa struktury danych 7
Arr_second_type 8
Arr_third_type 10
DataStructure
Interfejs struktury danych 11
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Chapter 3

File Index

3.1 File List

Here is a list of all files with brief descriptions:

algorytmy.cpp 17
algorytmy.hh 17
struktura.hh 17
test.cpp 18

Chapter 4

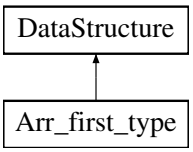
Class Documentation

4.1 Arr_first_type Class Reference

Klasa struktury danych.

`#include <algorytmy.hh>`

Inheritance diagram for Arr_first_type:



Public Member Functions

- void **add_num** (int number)
- **Arr_first_type** (int a)
- ∼**Arr_first_type** ()

Private Attributes

- int ∗ **arr** = NULL
- int **counter** = 0

4.1.1 Detailed Description

Klasa struktury danych.

Zawiera metodę umożliwiającą dodanie danej do struktury.

Definition at line 54 of file algorytmy.hh.

4.1.2 Constructor & Destructor Documentation

4.1.2.1 Arr_first_type::Arr_first_type (int *a*)

Definition at line 5 of file algorytmy.cpp.

4.1.2.2 Arr_first_type::~Arr_first_type ( )

Definition at line 14 of file algorytmy.cpp.

4.1.3 Member Function Documentation

4.1.3.1 void Arr_first_type::add_num (int *number*) [virtual]

Funkcja dodaje liczbe do tablicy. W przypadku przepełnienia zwiększa rozmiar o 1.

Parameters

in	*liczba*	typu int

Implements **DataStructure** (p. 12).

Definition at line 20 of file algorytmy.cpp.

4.1.4 Member Data Documentation

4.1.4.1 int* Arr_first_type::arr = NULL [private]

Wskaźnik na miejsce w pamięci dla tablicy

Definition at line 57 of file algorytmy.hh.

4.1.4.2 int Arr_first_type::counter = 0 [private]

Licznik miejsca

Definition at line 58 of file algorytmy.hh.

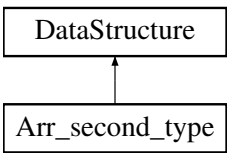
The documentation for this class was generated from the following files:

- **algorytmy.hh**
- **algorytmy.cpp**

4.2 Arr_second_type Class Reference

`#include <algorytmy.hh>`

Inheritance diagram for Arr_second_type:



Public Member Functions

- void **add_num** (int number)
- **Arr_second_type** (int a)
- ~**Arr_second_type** ()

Private Attributes

- int ∗ **arr** = NULL

  Klasa struktury danych.
- int **counter** = 0
- int **second_counter** =0

4.2.1 Detailed Description

Definition at line 75 of file algorytmy.hh.

4.2.2 Constructor & Destructor Documentation

4.2.2.1 Arr_second_type::Arr_second_type (int *a*)

Definition at line 45 of file algorytmy.cpp.

4.2.2.2 Arr_second_type::∼Arr_second_type ( )

Definition at line 54 of file algorytmy.cpp.

4.2.3 Member Function Documentation

4.2.3.1 void Arr_second_type::add_num (int *number*) [virtual]

Funkcja dodaje liczbe do tablicy. W przypadku przepełnienia podwaja rozmiar tablicy.

Parameters

in	*liczba*	typu int

Implements **DataStructure** (p. 12).

Definition at line 60 of file algorytmy.cpp.

4.2.4 Member Data Documentation

4.2.4.1 int∗ Arr_second_type::arr = NULL [private]

Klasa struktury danych.

Zawiera metodę umożliwiającą dodanie danej do struktury.Wskaźnik na miejsce w pamięci dla tablicy

Definition at line 84 of file algorytmy.hh.

4.2.4.2 int Arr_second_type::counter = 0 [private]

Licznik miejsca

Definition at line 85 of file algorytmy.hh.

4.2.4.3 int Arr_second_type::second_counter =0 [private]

Pomocniczy licznik miejsca

Definition at line 86 of file algorytmy.hh.

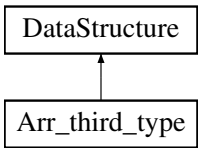
The documentation for this class was generated from the following files:

- **algorytmy.hh**
- **algorytmy.cpp**

4.3 Arr_third_type Class Reference

`#include <algorytmy.hh>`

Inheritance diagram for Arr_third_type:



Public Member Functions

- void **add_num** (int number)
- **Arr_third_type** (int a)
- ∼**Arr_third_type** ()

Private Attributes

- int ∗ **arr** = NULL

  Klasa struktury danych.
- int **counter** = 0
- int **second_counter** =0

4.3.1 Detailed Description

Definition at line 103 of file algorytmy.hh.

4.3.2 Constructor & Destructor Documentation

4.3.2.1 Arr_third_type::Arr_third_type (int *a*)

Definition at line 84 of file algorytmy.cpp.

4.3.2.2 Arr_third_type::∼Arr_third_type ( )

Definition at line 93 of file algorytmy.cpp.

4.3.3 Member Function Documentation

4.3.3.1 void Arr_third_type::add_num (int *number*) [virtual]

Funkcja dodaje liczbe do tablicy. W przypadku przepełnienia zwiększa rozmiar o 1.

Parameters

in	*liczba*	typu int

Implements **DataStructure** (p. 12).

Definition at line 99 of file algorytmy.cpp.

4.3.4 Member Data Documentation

4.3.4.1 int* Arr_third_type::arr = NULL [private]

Klasa struktury danych.

Zawiera metodę umożliwiającą dodanie danej do struktury.Wskaźnik na miejsce w pamięci dla tablicy

Definition at line 112 of file algorytmy.hh.

4.3.4.2 int Arr_third_type::counter = 0 [private]

Licznik miejsca

Definition at line 113 of file algorytmy.hh.

4.3.4.3 int Arr_third_type::second_counter =0 [private]

Pomocniczy licznik miejsca

Definition at line 114 of file algorytmy.hh.

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

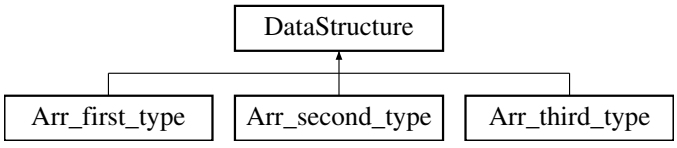
- **algorytmy.hh**
- **algorytmy.cpp**

4.4 DataStructure Class Reference

Interfejs struktury danych.

`#include <struktura.hh>`

Inheritance diagram for DataStructure:



Public Member Functions

- virtual void **add_num** (int element)=0
- virtual ~**DataStructure** ()

4.4.1 Detailed Description

Interfejs struktury danych.

Zawiera metodę umożliwiającą dodanie danej do struktury.

Definition at line 27 of file struktura.hh.

4.4.2 Constructor & Destructor Documentation

4.4.2.1 virtual DataStructure::~DataStructure ( ) [inline], [virtual]

Definition at line 31 of file struktura.hh.

4.4.3 Member Function Documentation

4.4.3.1 virtual void DataStructure::add_num (int *element*) [pure virtual]

Implemented in **Arr_third_type** (p. 10), **Arr_second_type** (p. 9), and **Arr_first_type** (p. 8).

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

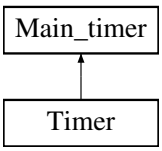
- **struktura.hh**

4.5 Main_timer Class Reference

Interfejs stopera.

`#include <struktura.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** ()

4.5.1 Detailed Description

Interfejs stopera.

Zawiera metody umożliwiające pomiar czasu wykonywania algorytmów.

Definition at line 10 of file struktura.hh.

4.5.2 Constructor & Destructor Documentation

4.5.2.1 virtual Main_timer::∼Main_timer ( ) [inline], [virtual]

Definition at line 18 of file struktura.hh.

4.5.3 Member Function Documentation

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

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

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

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

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

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

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

Implemented in **Timer** (p. 15).

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

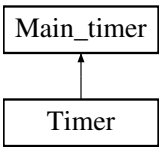
- **struktura.hh**

4.6 Timer Class Reference

Klasa stoper.

`#include <algorytmy.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**

4.6.1 Detailed Description

Klasa stoper.

Zawiera metody umożliwiające pomiar czasu wykonywania algorytmów.

Definition at line 10 of file algorytmy.hh.

4.6.2 Constructor & Destructor Documentation

4.6.2.1 Timer::~Timer ( ) [inline]

Definition at line 44 of file algorytmy.hh.

4.6.3 Member Function Documentation

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

Funkcja mierzy rzeczywisty czas w ms.

Returns

czas, jeśli zmierzono

Implements **Main_timer** (p. 13).

Definition at line 124 of file algorytmy.cpp.

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

Funkcja zwracająca zmierzony czas w ms.

Returns

czas, jeśli zmierzono

Implements **Main_timer** (p. 13).

Definition at line 146 of file algorytmy.cpp.

4.6.3.3 void Timer::tim_start ( ) [virtual]

Funkcja włączająca stoper.

Implements **Main_timer** (p. 13).

Definition at line 134 of file algorytmy.cpp.

4.6.3.4 void Timer::tim_stop ( ) [virtual]

Funkcja wyłączająca stoper.

Implements **Main_timer** (p. 13).

Definition at line 140 of file algorytmy.cpp.

4.6.4 Member Data Documentation

4.6.4.1 long double Timer::time_of_start [private]

Definition at line 13 of file algorytmy.hh.

4.6.4.2 long double Timer::time_of_stop [private]

Definition at line 14 of file algorytmy.hh.

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

- **algorytmy.hh**
- **algorytmy.cpp**

Chapter 5

File Documentation

5.1 algorytmy.cpp File Reference

```
#include <iostream>
#include "algorytmy.hh"
#include "struktura.hh"
```

5.2 algorytmy.hh File Reference

```
#include "struktura.hh"
```

Classes

- class **Timer**

  Klasa stoper.
- class **Arr_first_type**

  Klasa struktury danych.
- class **Arr_second_type**
- class **Arr_third_type**

5.3 struktura.hh File Reference

```
#include <sys/time.h>
```

Classes

- class **Main_timer**

  Interfejs stopera.
- class **DataStructure**

  Interfejs struktury danych.

5.4 test.cpp File Reference

```
#include <iostream>
#include "struktura.hh"
#include "algorytmy.hh"
```

Functions

- int **main** ()

5.4.1 Function Documentation

5.4.1.1 int main ( )

Definition at line 5 of file test.cpp.

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