Objektinio programavimo projektas

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## **Chapter 1**

## **Hierarchical Index**

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

## 1.1 Class Hierarchy

2 Hierarchical Index

## **Chapter 2**

## **Class Index**

### 2.1 Class List

and a series			

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

Studenta	15	٠	-	 •	٠	٠		•	٠		•	•	•	•	•	 	•	٠			٠	•	•	•	 	٠	٠	٠	•	 •	٠	•	•	٠	•	•		
zmogus																 									 												1	ľ

4 Class Index

## **Chapter 3**

## File Index

### 3.1 File List

Here is a list of all files with brief descriptions:

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errorfinder.h	1
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$build/googletest/googlemock/CMakeFiles/gmock\_main.dir/src/gmock\_main.cc.o.d \\ \\ 1$	9
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## **Chapter 4**

## **Class Documentation**

### 4.1 studentas Class Reference

#include <studentas.h>

Inheritance diagram for studentas:



### **Public Member Functions**

- studentas ()
- studentas (const string &v, const string &p, const vector< int > &nd, int e, double g)
- ∼studentas ()
- studentas (const studentas &kit)
- studentas & operator= (const studentas &kit)
- studentas (studentas &&kit) noexcept
- studentas & operator= (studentas &&kit) noexcept
- string getVardas () const
- string getPavarde () const
- vector< int > getNdrez () const
- int getErez () const
- double getGbalas () const
- void setVardas (const string &v)
- void setPavarde (const string &p)
- void setNdrez (const vector< int > &nd)
- void setErez (int e)
- void setGbalas (double g)
- void sortNdrez ()

### Public Member Functions inherited from zmogus

virtual ~zmogus ()=default

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### **Public Attributes**

- string line
- · char budas

### **Private Attributes**

- · string vardas
- string pavarde
- vector< int > ndrez
- int erez
- double gbalas

### **Friends**

- std::istream & operator>> (std::istream &in, studentas &kit)
- std::ostream & operator<< (std::ostream &out, const studentas &kit)

### **Additional Inherited Members**

### **Protected Member Functions inherited from zmogus**

• zmogus ()

### 4.1.1 Constructor & Destructor Documentation

```
4.1.1.1 studentas() [1/4]
```

```
studentas::studentas ( )
```

### 4.1.1.2 studentas() [2/4]

### 4.1.1.3 ~studentas()

```
studentas::~studentas ( )
```

### 4.1.1.4 studentas() [3/4]

### 4.1.1.5 studentas() [4/4]

### 4.1.2 Member Function Documentation

### 4.1.2.1 getErez()

```
int studentas::getErez ( ) const [inline]
```

### 4.1.2.2 getGbalas()

```
double studentas::getGbalas ( ) const [inline]
```

### 4.1.2.3 getNdrez()

```
vector< int > studentas::getNdrez ( ) const [inline]
```

### 4.1.2.4 getPavarde()

```
string studentas::getPavarde ( ) const [inline]
```

### 4.1.2.5 getVardas()

```
string studentas::getVardas ( ) const [inline]
```

### 4.1.2.6 operator=() [1/2]

### 4.1.2.7 operator=() [2/2]

### 4.1.2.8 setErez()

```
void studentas::setErez (
          int e) [inline]
```

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### 4.1.2.9 setGbalas()

```
void studentas::setGbalas ( \label{eq:condition} \mbox{double } g \mbox{ } \mbox{[inline]}
```

### 4.1.2.10 setNdrez()

### 4.1.2.11 setPavarde()

```
void studentas::setPavarde ( {\tt const\ string\ \&\ p\ )} \quad [{\tt inline}]
```

### 4.1.2.12 setVardas()

```
void studentas::setVardas ( {\tt const\ string\ \&\ v\ )} \quad [{\tt inline}]
```

### 4.1.2.13 sortNdrez()

```
void studentas::sortNdrez ( ) [inline]
```

### 4.1.3 Friends And Related Symbol Documentation

### 4.1.3.1 operator <<

### **4.1.3.2** operator>>

```
std::istream & operator>> (
          std::istream & in,
          studentas & kit ) [friend]
```

### 4.1.4 Member Data Documentation

### 4.1.4.1 budas

char studentas::budas

### 4.1.4.2 erez

```
int studentas::erez [private]
```

### 4.1.4.3 gbalas

double studentas::gbalas [private]

### 4.1.4.4 line

string studentas::line

### 4.1.4.5 ndrez

vector<int> studentas::ndrez [private]

### 4.1.4.6 pavarde

string studentas::pavarde [private]

### 4.1.4.7 vardas

string studentas::vardas [private]

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

- studentas.h
- · studentas.cpp

### 4.2 zmogus Class Reference

#include <zmogus.h>

Inheritance diagram for zmogus:



### **Public Member Functions**

• virtual  $\sim$ zmogus ()=default

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### **Protected Member Functions**

• zmogus ()

### 4.2.1 Constructor & Destructor Documentation

```
4.2.1.1 ~zmogus()
virtual zmogus::~zmogus ( ) [virtual], [default]
4.2.1.2 zmogus()
zmogus::zmogus ( ) [inline], [protected]
```

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

• zmogus.h

## **Chapter 5**

## **File Documentation**

# 5.1 build/CMakeFiles/3.29.2/CompilerIdC/CMakeCCompilerId.c File Reference

### **Macros**

- #define \_\_has\_include(x) 0
- #define COMPILER\_ID ""
- #define STRINGIFY\_HELPER(X) #X
- #define STRINGIFY(X) STRINGIFY HELPER(X)
- #define PLATFORM ID
- #define ARCHITECTURE\_ID
- #define DEC(n)
- #define HEX(n)
- #define C\_VERSION

### **Functions**

• int main (int argc, char \*argv[])

### **Variables**

```
• char const * info_compiler = "INFO" ":" "compiler[" COMPILER_ID "]"
```

- char const \* info\_platform = "INFO" ":" "platform[" PLATFORM\_ID "]"
- char const \* info\_arch = "INFO" ":" "arch[" ARCHITECTURE\_ID "]"
- const char \* info\_language\_standard\_default
- const char \* info\_language\_extensions\_default

### 5.1.1 Macro Definition Documentation

### 5.1.1.1 \_\_has\_include

```
#define __has_include( x ) 0
```

### 5.1.1.2 ARCHITECTURE\_ID

```
#define ARCHITECTURE_ID
```

### 5.1.1.3 C\_VERSION

```
#define C_VERSION
```

### 5.1.1.4 COMPILER\_ID

```
#define COMPILER_ID ""
```

### 5.1.1.5 DEC

```
#define DEC( \ensuremath{n} )
```

### Value:

### 5.1.1.6 HEX

```
#define HEX( n)
```

### Value:

```
('0' + ((n) > 28 & 0xF)), \
('0' + ((n) > 24 & 0xF)), \
('0' + ((n) > 24 & 0xF)), \
('0' + ((n) > 16 & 0xF)), \
('0' + ((n) > 12 & 0xF)), \
('0' + ((n) > 8 & 0xF)), \
('0' + ((n) > 4 & 0xF)), \
('0' + ((n) > 4 & 0xF)), \
('0' + ((n) & 0xF)), \
('0' + ((n) & 0xF))
```

### 5.1.1.7 PLATFORM\_ID

```
#define PLATFORM_ID
```

### 5.1.1.8 STRINGIFY

### 5.1.1.9 STRINGIFY\_HELPER

```
#define STRINGIFY_HELPER( \it X ) \rm \#X
```

### 5.1.2 Function Documentation

### 5.1.2.1 main()

```
int main (
          int argc,
          char * argv[] )
```

### 5.1.3 Variable Documentation

### 5.1.3.1 info\_arch

```
char const* info_arch = "INFO" ":" "arch[" ARCHITECTURE_ID "]"
```

### 5.1.3.2 info\_compiler

```
char const* info_compiler = "INFO" ":" "compiler[" COMPILER_ID "]"
```

### 5.1.3.3 info\_language\_extensions\_default

```
const char* info_language_extensions_default
```

### Initial value:

```
= "INFO" ":" "extensions_default["
```

```
"OFF"
```

### 5.1.3.4 info\_language\_standard\_default

```
const char* info_language_standard_default
```

### Initial value:

```
"INFO" ":" "standard_default[" C_VERSION "]"
```

### 5.1.3.5 info\_platform

```
char const* info_platform = "INFO" ":" "platform[" PLATFORM_ID "]"
```

# 5.2 build/CMakeFiles/3.29.2/CompilerIdCXX/CMakeCXXCompilerId.cpp File Reference

### **Macros**

- #define \_\_has\_include(x) 0
- #define COMPILER ID ""
- #define STRINGIFY HELPER(X) #X
- #define STRINGIFY(X) STRINGIFY HELPER(X)
- #define PLATFORM\_ID
- #define ARCHITECTURE\_ID
- #define DEC(n)
- #define HEX(n)
- #define CXX\_STD \_\_cplusplus

### **Functions**

• int main (int argc, char \*argv[])

### **Variables**

- char const \* info\_compiler = "INFO" ":" "compiler[" COMPILER\_ID "]"
- char const \* info\_platform = "INFO" ":" "platform[" PLATFORM\_ID "]"
- char const \* info arch = "INFO" ":" "arch[" ARCHITECTURE ID "]"
- const char \* info\_language\_standard\_default
- · const char \* info\_language\_extensions\_default

### 5.2.1 Macro Definition Documentation

### 5.2.1.1 \_\_has\_include

```
#define __has_include( x ) 0
```

### 5.2.1.2 ARCHITECTURE\_ID

#define ARCHITECTURE\_ID

### 5.2.1.3 COMPILER ID

#define COMPILER\_ID ""

### 5.2.1.4 CXX\_STD

#define CXX\_STD \_\_cplusplus

### 5.2.1.5 DEC

### 5.2.1.6 HEX

### 5.2.1.7 PLATFORM\_ID

```
#define PLATFORM_ID
```

### 5.2.1.8 STRINGIFY

### 5.2.1.9 STRINGIFY\_HELPER

```
#define STRINGIFY_HELPER( \it X ) \rm \#X
```

### 5.2.2 Function Documentation

### 5.2.2.1 main()

```
int main (
          int argc,
          char * argv[] )
```

### 5.2.3 Variable Documentation

### 5.2.3.1 info\_arch

```
char const* info_arch = "INFO" ":" "arch[" ARCHITECTURE_ID "]"
```

### 5.2.3.2 info\_compiler

```
char const* info_compiler = "INFO" ":" "compiler[" COMPILER_ID "]"
```

### 5.2.3.3 info\_language\_extensions\_default

```
const char* info_language_extensions_default
```

```
Initial value:
= "INFO" ":" "extensions_default["
```

```
"OFF"
יין יי
```

### 5.2.3.4 info\_language\_standard\_default

```
const char* info_language_standard_default
```

```
Initial value:
= "INFO" ":" "standard_default["
```

```
"98"
" ] "
```

### 5.2.3.5 info\_platform

```
char const* info_platform = "INFO" ":" "platform[" PLATFORM_ID "]"
```

- 5.3 build/CMakeFiles/mytests.dir/mytests.cpp.o.d File Reference
- 5.4 build/CMakeFiles/mytests.dir/studentas.cpp.o.d File Reference
- 5.5 build/googletest/googlemock/CMakeFiles/gmock.dir/src/gmock-all.cc.o.d File Reference
- 5.6 build/googletest/googlemock/CMakeFiles/gmock\_← main.dir/src/gmock main.cc.o.d File Reference
- 5.7 build/googletest/googletest/CMakeFiles/gtest.dir/src/gtest-all.cc.o.d File Reference
- 5.8 build/googletest/googletest/CMakeFiles/gtest\_main.dir/src/gtest\_← main.cc.o.d File Reference
- 5.9 errorfinder.cpp File Reference

```
#include "errorfinder.h"
#include "studentas.h"
```

### **Functions**

- int ivedbudpatikra ()
- char budaspatikra ()
- · char dskaitpatikra ()
- int studskpatikra ()
- char isvedbudpatikra ()
- int erezpatikra ()
- char rikbudpatikra ()
- int pazymiopatikra ()
- char skirstymopatikra ()
- char fgeneravimopatikra ()
- int skirststratpat ()

### 5.9.1 Function Documentation

### 5.9.1.1 budaspatikra()

```
char budaspatikra ( )
```

# 5.9.1.2 dskaitpatikra() char dskaitpatikra ( ) 5.9.1.3 erezpatikra() int erezpatikra ( ) 5.9.1.4 fgeneravimopatikra() char fgeneravimopatikra ( ) 5.9.1.5 isvedbudpatikra() char isvedbudpatikra ( ) 5.9.1.6 ivedbudpatikra() int ivedbudpatikra ( ) 5.9.1.7 pazymiopatikra() int pazymiopatikra ( ) 5.9.1.8 rikbudpatikra() char rikbudpatikra ( ) 5.9.1.9 skirststratpat() int skirststratpat ( ) 5.9.1.10 skirstymopatikra() char skirstymopatikra ( ) 5.9.1.11 studskpatikra()

int studskpatikra ( )

### 5.10 errorfinder.h File Reference

```
#include <iostream>
#include <limits>
```

### **Functions**

- int ivedbudpatikra ()
- char budaspatikra ()
- char dskaitpatikra ()
- int studskpatikra ()
- char isvedbudpatikra ()
- int erezpatikra ()
- char rikbudpatikra ()
- int pazymiopatikra ()
- char skirstymopatikra ()
- int skirststratpat ()
- · char fgeneravimopatikra ()

### 5.10.1 Function Documentation

### 5.10.1.1 budaspatikra()

```
char budaspatikra ( )
```

### 5.10.1.2 dskaitpatikra()

```
char dskaitpatikra ( )
```

### 5.10.1.3 erezpatikra()

```
int erezpatikra ( )
```

### 5.10.1.4 fgeneravimopatikra()

```
char fgeneravimopatikra ( )
```

### 5.10.1.5 isvedbudpatikra()

```
char isvedbudpatikra ( )
```

### 5.10.1.6 ivedbudpatikra()

```
int ivedbudpatikra ( )
```

### 5.10.1.7 pazymiopatikra()

```
int pazymiopatikra ( )
```

### 5.10.1.8 rikbudpatikra()

```
char rikbudpatikra ( )
```

### 5.10.1.9 skirststratpat()

```
int skirststratpat ( )
```

### 5.10.1.10 skirstymopatikra()

```
char skirstymopatikra ( )
```

### 5.10.1.11 studskpatikra()

```
int studskpatikra ( )
```

### 5.11 errorfinder.h

### Go to the documentation of this file.

```
00001 #include <iostream>
00002 #include <iinmits>
00003
00004 using namespace std;
00005
00006 int ivedbudpatikra();
00007 char budaspatikra();
00009 int studskpatikra();
00010 char isvedbudpatikra();
00010 char isvedbudpatikra();
00011 int erezpatikra();
00012 char rikbudpatikra();
00013 int pazymiopatikra();
00014 char skirstymopatikra();
00015 int skirststratpat();
00016 char fgeneravimopatikra();
```

## 5.12 filegenerator.cpp File Reference

```
#include "filegenerator.h"
#include "errorfinder.h"
#include "functions.h"
#include "studentas.h"
```

### **Functions**

· int failugeneravimas ()

### 5.12.1 Function Documentation

### 5.12.1.1 failugeneravimas()

```
int failugeneravimas ( )
```

### 5.13 filegenerator.h File Reference

```
#include <iostream>
#include <iomanip>
#include <fstream>
#include <sstream>
#include <chrono>
```

### **Functions**

• int failugeneravimas ()

### 5.13.1 Function Documentation

### 5.13.1.1 failugeneravimas()

```
int failugeneravimas ( )
```

### 5.14 filegenerator.h

### Go to the documentation of this file.

```
00001 #include<iostream>
00002 #include<iomanip>
00003 #include<fstream>
00004 #include <sstream>
00005 #include <chrono>
00006
00007
00008 using namespace std;
00009 using namespace std::chrono;
00010
00011 int failugeneravimas();
```

### 5.15 functions.cpp File Reference

```
#include "functions.h"
#include "errorfinder.h"
#include "studentas.h"
```

### **Functions**

- void skaitymasisfailo (vector< studentas > &A, char budas, char ivedbudas)
- void irasymasifaila (vector< studentas > &A, char budas)
- void isvedimas (vector < studentas > &A, char budas)
- void pazymiuived (studentas &new\_studentas, char budas, int ivedbudas)
- void skaiciavimas (studentas &new studentas, char budas)
- bool rikiavimasgbalas (const studentas &a, const studentas &b)
- bool rikiavimasvardas (const studentas &a, const studentas &b)
- bool rikiavimaspavarde (const studentas &a, const studentas &b)
- void rikiavimas (vector < studentas > &A)
- void skirstymas1 (vector< studentas > &A, vector< studentas > &K, vector< studentas > &V)
- void skirstymas2 (vector < studentas > &A, vector < studentas > &V)
- void skirstymas3 (vector< studentas > &A, vector< studentas > &K, vector< studentas > &V)
- void irasymasifailaK (vector< studentas > &A, vector< studentas > &K, vector< studentas > &V, char budas, int skistr)

### **Variables**

• int tlaikas = 0

### 5.15.1 Function Documentation

### 5.15.1.1 irasymasifaila()

### 5.15.1.2 irasymasifailaK()

```
void irasymasifailaK (  vector < studentas > \& A, \\ vector < studentas > \& K, \\ vector < studentas > \& V, \\ char budas, \\ int skistr )
```

### 5.15.1.3 isvedimas()

```
void is vector < studentas > & A, char budas >
```

### 5.15.1.4 pazymiuived()

### 5.15.1.5 rikiavimas()

```
void rikiavimas ( \mbox{vector} < \mbox{studentas} \ > \mbox{\&} \ \mbox{A} \ )
```

### 5.15.1.6 rikiavimasgbalas()

```
bool rikiavimasgbalas (  {\rm const\ studentas\ \&\ a,}   {\rm const\ studentas\ \&\ b\ )}
```

### 5.15.1.7 rikiavimaspavarde()

### 5.15.1.8 rikiavimasvardas()

```
bool rikiavimasvardas (  {\rm const\ studentas\ \&\ a,}   {\rm const\ studentas\ \&\ b\ )}
```

### 5.15.1.9 skaiciavimas()

### 5.15.1.10 skaitymasisfailo()

```
void skaitymasisfailo (
     vector< studentas > & A,
     char budas,
     char ivedbudas )
```

### 5.15.1.11 skirstymas1()

```
void skirstymas1 (  vector < studentas > \& A, \\ vector < studentas > \& K, \\ vector < studentas > \& V)
```

### 5.15.1.12 skirstymas2()

```
void skirstymas3 (  \mbox{vector} < \mbox{studentas} > \& \mbox{$A$,}   \mbox{vector} < \mbox{studentas} > \& \mbox{$K$,}   \mbox{vector} < \mbox{studentas} > \& \mbox{$V$} )
```

### 5.15.2 Variable Documentation

### 5.15.2.1 tlaikas

```
int tlaikas = 0
```

### 5.16 functions.h File Reference

```
#include <iostream>
#include <iomanip>
#include <limits>
#include <algorithm>
#include <vector>
#include <cstdlib>
#include <ctime>
#include <string>
#include <fstream>
#include <sstream>
#include <chrono>
#include "studentas.h"
```

### **Functions**

- void skaitymasisfailo (vector < studentas > &A, char budas, char ivedbudas)
- void isvedimas (vector < studentas > &A, char budas)
- void pazymiuived (studentas &new studentas, char budas, int ivedbudas)
- · void skaiciavimas (studentas &new studentas, char budas)
- void irasymasifaila (vector < studentas > &A, char budas)
- bool rikiavimasgbalas (const studentas &a, const studentas &b)
- bool rikiavimasvardas (const studentas &a, const studentas &b)
- bool rikiavimaspavarde (const studentas &a, const studentas &b)
- void rikiavimas (vector < studentas > &A)
- void skirstymas1 (vector< studentas > &A, vector< studentas > &K, vector< studentas > &V)
- void skirstymas2 (vector< studentas > &A, vector< studentas > &V)
- void skirstymas3 (vector< studentas > &A, vector< studentas > &V)
- void irasymasifailaK (vector< studentas > &A, vector< studentas > &K, vector< studentas > &V, char budas, int skistr)

### **Variables**

· int tlaikas

### 5.16.1 Function Documentation

### 5.16.1.1 irasymasifaila()

```
void irasymasifaila ( \mbox{vector} < \mbox{studentas} \ > \mbox{\& A,} \mbox{char } \mbox{budas} \ )
```

### 5.16.1.2 irasymasifailaK()

```
void irasymasifailaK (
    vector< studentas > & A,
    vector< studentas > & K,
    vector< studentas > & V,
    char budas,
    int skistr )
```

### 5.16.1.3 isvedimas()

```
void is vector < studentas > & A, char budas >
```

### 5.16.1.4 pazymiuived()

### 5.16.1.5 rikiavimas()

```
void rikiavimas ( \mbox{vector} < \mbox{studentas} \ > \mbox{\&} \ \mbox{A} \ )
```

### 5.16.1.6 rikiavimasgbalas()

```
bool rikiavimasgbalas (  {\rm const\ studentas\ \&\ a,}   {\rm const\ studentas\ \&\ b\ )}
```

### 5.16.1.7 rikiavimaspavarde()

```
bool rikiavimaspavarde (  {\rm const\ studentas\ \&\ a,}   {\rm const\ studentas\ \&\ b\ )}
```

### 5.16.1.8 rikiavimasvardas()

```
bool rikiavimasvardas (  {\rm const\ studentas\ \&\ a,}   {\rm const\ studentas\ \&\ b\ )}
```

### 5.16.1.9 skaiciavimas()

### 5.16.1.10 skaitymasisfailo()

### 5.16.1.11 skirstymas1()

```
void skirstymas1 (  \mbox{vector} < \mbox{studentas} > \& \mbox{\it A,} \\ \mbox{vector} < \mbox{studentas} > \& \mbox{\it K,} \\ \mbox{vector} < \mbox{studentas} > \& \mbox{\it V} \mbox{\it )}
```

### 5.16.1.12 skirstymas2()

```
void skirstymas2 ( \mbox{vector} < \mbox{studentas} > \& \mbox{ A,} \\ \mbox{vector} < \mbox{studentas} > \& \mbox{ V})
```

### 5.16.1.13 skirstymas3()

```
void skirstymas3 (  vector < studentas > \& A, \\ vector < studentas > \& K, \\ vector < studentas > \& V)
```

5.17 functions.h

### 5.16.2 Variable Documentation

### 5.16.2.1 tlaikas

```
int tlaikas [extern]
```

### 5.17 functions.h

### Go to the documentation of this file.

```
00001 #ifndef FUNCTIONS_H
00002 #define FUNCTIONS_H
00003
00004 #include <iostream>
00005 #include <iomanip>
00006 #include <limits>
00007 #include <algorithm>
00008 #include <vector>
00009 #include <cstdlib>
00010 #include <ctime>
00011 #include <string>
00012 #include <fstream>
00013 #include <sstream>
00014 #include <chrono>
00015 #include "studentas.h"
00016
00017 using namespace std;
00018 using namespace std::chrono;
00019
00020 // struct studentas
00021 // {
00022 //
               string vardas;
00023 //
               string pavarde;
00024 //
               vector<int> ndrez; //sudaromas vektorius
00025 //
               int erez:
00026 //
               double gbalas;
00027 // };
00028
00029 extern int tlaikas;
00030
00031 void skaitymasisfailo(vector<studentas> &A, char budas, char ivedbudas);
00032 void isvedimas (vector<studentas> &A, char budas);
00033 void pazymiuived(studentas &new_studentas, char budas, int ivedbudas);
00034 void skaiciavimas(studentas &new_studentas, char budas);
00035 void irasymasifaila(vector<studentas> &A, char budas);
00036 bool rikiavimasgbalas(const studentas &a, const studentas &b);
00037 bool rikiavimasvardas(const studentas &a, const studentas &b);
00038 bool rikiavimaspavarde(const studentas &a, const studentas &b);
00039 void rikiavimas (vector<studentas> &A);
00040 void skirstymas1(vector<studentas> &A, vector<studentas> &K, vector<studentas> &V);
00041 void skirstymas2(vector<studentas> &A, vector<studentas> &V);
00042 void skirstymas3(vector<studentas> &A, vector<studentas> &K, vector<studentas> &V);
00043 void irasymasifailaK(vector<studentas> &A, vector<studentas> &K, vector<studentas> &V, char budas, int
      skistr);
00044
00045 #endif // FUNCTIONS_H
```

### 5.18 main.cpp File Reference

```
#include "functions.h"
#include "errorfinder.h"
#include "filegenerator.h"
#include "studentas.h"
```

### **Functions**

- void testCopyConstruction ()
- void testMoveConstruction ()
- void testCopyAssignment ()
- void testMoveAssignment ()
- int main ()

### 5.18.1 Function Documentation

### 5.18.1.1 main()

```
int main ( )
```

### 5.18.1.2 testCopyAssignment()

```
void testCopyAssignment ( )
```

### 5.18.1.3 testCopyConstruction()

```
void testCopyConstruction ( )
```

### 5.18.1.4 testMoveAssignment()

```
void testMoveAssignment ( )
```

### 5.18.1.5 testMoveConstruction()

```
void testMoveConstruction ( )
```

## 5.19 mytests.cpp File Reference

```
#include "studentas.h"
#include "gtest/gtest.h"
```

### **Functions**

- TEST (StudentasTest, ConstructorAndGetters)
- TEST (StudentasTest, Setters)
- TEST (StudentasTest, SortNdrez)
- int main (int argc, char \*\*argv)

### 5.19.1 Function Documentation

### 5.19.1.1 main()

## 5.20 studentas.cpp File Reference

```
#include "studentas.h"
#include <utility>
```

### 5.21 studentas.h File Reference

```
#include "zmogus.h"
#include "errorfinder.h"
#include <iostream>
#include <iomanip>
#include <vector>
#include <string>
#include <algorithm>
#include <sstream>
```

### **Classes**

· class studentas

### 5.22 studentas.h

### Go to the documentation of this file.

```
00001 #ifndef STUDENTAS_H
00002 #define STUDENTAS_H
00003
00004 #include "zmogus.h"
00005 #include "errorfinder.h"
00006 #include <iostream>
00007 #include <iomanip>
00008 #include <vector>
00009 #include <string>
00010 #include <algorithm>
00011 #include <sstream>
00012
00013 using namespace std;
00014
00015 class studentas : public zmogus {
00016 private:
      string vardas;
00017
00018
        string pavarde;
        vector<int> ndrez;
00019
00020
        int erez;
00021
        double gbalas;
00022
        // interfeisas
00023
        public:
        string line;
00024
00025
          char budas:
00026
          studentas(); // default konstruktorius
          studentas(const string &v, const string &p, const vector<int> &nd, int e, double g);
00027
00028
00029
          ~studentas(); // destruktorius
00030
00031
          studentas (const studentas &kit); // copy konstruktorius
00032
00033
          studentas &operator=(const studentas &kit); // priskyrimo operatorius
00034
00035
          studentas(studentas &&kit) noexcept; // move konstruktorius
00036
00037
          studentas & operator = (studentas & & kit) noexcept;
00038
00039 friend std::istream &operator»(std::istream &in, studentas &kit){
00040
        kit.ndrez.clear();
00041
        int sum = 0;
00042
          if(kit.budas == 'f'){
00043
00044
            istringstream my_buffer(kit.line);
00045
00046
            my_buffer » kit.vardas » kit.pavarde;
00047
            int pazymys;
00048
            while (my_buffer » pazymys)
00049
00050
              kit.ndrez.push_back(pazymys); // prisikiriamas elSementas
00051
              sum += pazymys;
00052
00053
00054
            if (!kit.ndrez.empty()) {
00055
              kit.erez = kit.ndrez.back();
00056
              kit.ndrez.pop_back();
00057
              sum -= kit.erez;
00058
00059
          kit.gbalas = sum; }
          if(kit.budas == 'r')
00060
00061
00062
            cout « "Iveskite studento varda ir pavarde arba "11", jeigu norite uzbaigti studentu vedima: ";
00063
            in » kit.vardas:
            if (kit.vardas != "11")
00064
00065
00066
              in » kit.pavarde;
00067
            }
00068
00069
          return in:
00070
00071
00072
          friend std::ostream &operator (std::ostream &out, const studentas &kit)
00073
```

```
out « setw(25) « left « kit.vardas « setw(25) « left « kit.pavarde « setprecision(3) « left «
      kit.gbalas « '\n';
00075
               return out;
00076
00077
          string getVardas() const { return vardas; } // get'eriai
string getPavarde() const { return pavarde; } // get'eriai
00078
08000
           vector<int> getNdrez() const { return ndrez; }
00081
           int getErez() const { return erez; }
00082
           double getGbalas() const { return gbalas; } // get'eriai
00083
00084
           void setVardas(const string &v) { vardas = v; }
           void setPavarde(const string &p) { pavarde = p; }
void setNdrez(const vector<int> &nd) { ndrez = nd; }
00085
00086
00087
           void setErez(int e) { erez = e; }
           void setGbalas(double g) { gbalas = g; } // set'eriai
00088
00089
00090
           void sortNdrez() { sort(ndrez.begin(), ndrez.end()); }
00091
00092
00093 };
00094
00095 #endif // STUDENTAS_H
```

### 5.23 zmogus.h File Reference

```
#include <iostream>
#include <vector>
#include <string>
```

### Classes

• class zmogus

### 5.24 zmogus.h

### Go to the documentation of this file.

```
00001 #ifndef ZMOGUS_H
00002 #define ZMOGUS_H
00003
00004 #include <iostream>
00005 #include <vector>
00006 #include <string>
00007
00008 using namespace std;
00009
00010 class zmogus {
00011 public:
00012
        virtual ~zmogus() = default;
00013
         protected:
zmogus() {}
00015 };
00016
00017 #endif // ZMOGUS_H
```

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