

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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Chapter 2

File Index

2.1 File List

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

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Chapter 3

Class Documentation

3.1 EnglishRussianDictionary Class Reference

Public Member Functions

- bool **IsContain** (std::string english_word)
- bool **AddNewPairOfWords** (std::string english_word, std::string russian_translation)
- int **CountNumberOfWords** (**PairOfWords** *root)
- bool **DeleteEnglishWord** (std::string english_word)
- bool **ChangeTranslation** (std::string english_word, std::string russian_translation)
- std::string **operator[]** (std::string english_word)
- bool **ReadDictionaryFromFile** (**EnglishRussianDictionary** &new_dictionary, std::string filename)

3.1.1 Member Function Documentation

3.1.1.1 AddNewPairOfWords()

```
bool EnglishRussianDictionary::AddNewPairOfWords (
    std::string english_word,
    std::string russian_translation )
```

Adds the pair of words. Also checks if the added element already in tree

3.1.1.2 ChangeTranslation()

```
bool EnglishRussianDictionary::ChangeTranslation (
    std::string english_word,
    std::string russian_translation )
```

Changes translation for english word

3.1.1.3 CountNumberOfWords()

```
int EnglishRussianDictionary::CountNumberOfWords (
    PairOfWords * root )
```

ACounts the number of words in the dictionary

3.1.1.4 DeleteEnglishWord()

```
bool EnglishRussianDictionary::DeleteEnglishWord (
    std::string english_word )
```

Searches and deletes element

3.1.1.5 operator[]()

```
std::string EnglishRussianDictionary::operator[] (
    std::string english_word )
```

Operation override

3.1.1.6 ReadDictionaryFromFile()

```
bool EnglishRussianDictionary::ReadDictionaryFromFile (
    EnglishRussianDictionary & new_dictionary,
    std::string filename )
```

Enters dictionary from file

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

- [EnglishRussianDictionary.h](#)
- [EnglishRussianDictionary.cpp](#)

3.2 PairOfWords Struct Reference

Struct, that contain information about nodes of the binar tree.

```
#include <EnglishRussianDictionary.h>
```

Public Attributes

- std::string **english_word_**
It's english word, that is used like key.
- std::string **russian_tranlation_**
It's the transltion of the english word.
- [PairOfWords](#) * **right_child_** = NULL
It's the pointer to one of 2 children.
- [PairOfWords](#) * **left_child_** = NULL
It's the pointer to one of 2 children.

3.2.1 Detailed Description

Struct, that contain information about nodes of the binar tree.

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

- [EnglishRussianDictionary.h](#)

Chapter 4

File Documentation

4.1 EnglishRussianDictionary.cpp File Reference

```
#include "pch.h"
#include <fstream>
#include "EnglishRussianDictionary.h"
#include <string>
```

4.1.1 Detailed Description

File, that contains all information about realization of main class [EnglishRussianDictionary](#)

4.2 EnglishRussianDictionary.h File Reference

```
#include <string>
#include "gtest/gtest.h"
#include <fstream>
```

Classes

- struct [PairOfWords](#)
Struct, that contains information about nodes of the binary tree.
- class [EnglishRussianDictionary](#)

4.2.1 Detailed Description

This file contains prototypes of main Class

4.3 EnglishRussianDictionary.h

[Go to the documentation of this file.](#)

```

00001
00007 #pragma once
00008 #include <string>
00009 #include "gtest/gtest.h"
00010 #include <fstream>
00011
00012
00014 struct PairOfWords
00015 {
00016     std::string english_word_;
00017     std::string russian_tranlation_;
00018     PairOfWords* right_child_ = NULL;
00019     PairOfWords* left_child_ = NULL;
00020 };
00021
00022
00023 class EnglishRussianDictionary
00024 {
00025 private:
00026     PairOfWords *english_russian_dictionary_tree_root_;
00027
00028     void DeleteAll (PairOfWords* root);
00029     PairOfWords* FindPerentForNew(PairOfWords* root, PairOfWords* new_element);
00030     bool DeleteEnglishWordNoChildren(PairOfWords* root);
00031     bool DeleteEnglishWordOneChild(PairOfWords* root);
00032     bool DeleteEnglishWordTwoChildren(PairOfWords* root);
00033     PairOfWords* FindPerantElement(std::string english_word, PairOfWords* root);
00034     PairOfWords* FindElement(std::string);
00035
00036 public:
00037     EnglishRussianDictionary();
00038
00039     ~EnglishRussianDictionary();
00040
00041     bool IsContain(std::string english_word);
00042
00043     bool AddNewPairOfWords(std::string english_word, std::string russian_translation);
00044
00045     int CountNamberOfWords(PairOfWords* root);
00046
00047     bool DeleteEnglishWord(std::string english_word);
00048
00049     bool ChangeTranslation(std::string english_word, std::string russian_translation);
00050
00051     std::string operator [] (std::string english_word);
00052
00053     bool ReadDictionaryFromFile(EnglishRussianDictionary& new_dictionary, std::string falename);
00054 };
00055

```

4.4 pch.h

```

00001 //
00002 // pch.h
00003 //
00004
00005 #pragma once
00006
00007 #include "gtest/gtest.h"

```

4.5 test.cpp File Reference

```

#include "pch.h"
#include "EnglishRussianDictionary.h"

```

Functions

- **TEST** (DictionaryTest, TranslationTest)
- **TEST** (DictionaryTest, RemoveElementTest)
- **TEST** (DictionaryTest, UpdateTranslationTest)
- **TEST** (DictionaryTest, GetCountTest)
- **TEST** (DictionaryTest, LoadFromFileTest)

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