Lab1VA

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Chapter 1

Class Index

1.1 Class List

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

Chapter 2

File Index

2.1 File List

Here is a list of all files with brief descriptions:

Chapter 3

Class Documentation

3.1 Student Class Reference

Public Member Functions

- Student ()
- Student (ifstream &in)
- ~Student ()
- Student & operator= (const Student &A)

Public Attributes

- string fname
- string lname
- string mname
- string faculty
- int mark

Friends

- ostream & operator<< (ostream &out, const Student &A)

3.1.1 Constructor & Destructor Documentation

3.1.1.1 Student() [1/2]

```
Student::Student ( )
```

3.1.1.2 Student() [2/2]

```
Student::Student (
            ifstream & in )
```

3.1.1.3 ~Student()

```
Student::~Student ( )
```

3.1.2 Member Function Documentation

3.1.2.1 operator=()

```
Student & Student::operator= (
            const Student & A )
```

3.1.3 Friends And Related Function Documentation

3.1.3.1 operator<<

```
ostream & operator<< (
            ostream & out,
            const Student & A )  [friend]
```

3.1.4 Member Data Documentation

3.1.4.1 faculty

```
string Student::faculty
```

3.1.4.2 fname

```
string Student::fname
```

3.1.4.3 lname

```
string Student::lname
```

3.1.4.4 mark

```
int Student::mark
```

3.1.4.5 mname

```
string Student::mname
```

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

- lab1va.cpp

Chapter 4

File Documentation

4.1 lab1va.cpp File Reference

```
#include <iostream>
#include <string>
#include <vector>
#include <algorithm>
#include <fstream>
#include <time.h>
```

Classes

- class Student

Functions

- ostream & operator<< (ostream &out, const Student &A)
- bool operator== (const Student &A, const Student &B)
- bool operator!= (const Student &A, const Student &B)
- bool operator> (const Student &A, const Student &B)
- bool operator< (const Student &A, const Student &B)
- bool operator>= (const Student &A, const Student &B)
- bool operator<= (const Student &A, const Student &B)
- template<typename T >
  void selectSort (T a[ ], size_t size)
- template<typename T >
  void bubbleSort (T *A, size_t n)
- template<typename T >
  void shakerSort (T *A, size_t n)
- int main ()

4.1.1 Function Documentation

4.1.1.1 bubbleSort()

```
template<typename T >
void bubbleSort (
            T * A,
            size_t n )
```

4.1.1.2 main()

```
int main ( )
```

4.1.1.3 operator"!=()

```
bool operator!= (
            const Student & A,
            const Student & B )
```

4.1.1.4 operator<()

```
bool operator< (
            const Student & A,
            const Student & B )
```

4.1.1.5 operator<<()

```
ostream & operator<< (
            ostream & out,
            const Student & A )
```

4.1.1.6 operator<=()

```
bool operator<= (
            const Student & A,
            const Student & B )
```

4.1.1.7 operator==()

```
bool operator== (
            const Student & A,
            const Student & B )
```

4.1.1.8 operator>()

```
bool operator> (
            const Student & A,
            const Student & B )
```

4.1.1.9 operator>=()

```
bool operator>= (
            const Student & A,
            const Student & B )
```

4.1.1.10 selectSort()

```
template<typename T >
void selectSort (
            T a[],
            size_t size )
```

4.1.1.11 shakerSort()

```
template<typename T >
void shakerSort (
            T * A,
            size_t n )
```

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