



I used the Visual Studio 2012 compiler in my homework. I compiled the assignment in several different versions of Visual Studio and there was no problem. I do my homework and check on Visual Studio 2012 since we use Visual Studio 2012 in all C++-containing classes in school, unfortunately it is not possible for me to realize if this is an error since there are no problems on different versions of Visual Studio. There is a difference between `avlTree.h` and `AvlTree.h` on line 3 of the `AvlTree.cpp` file. I think this typo can cause problems in compilers other than Visual Studio. I am attaching the compilation image of the code I opened in a new build, without fixing anything. I would appreciate it if you would regrade my homework, I will be more careful in the future.

```
100 %
Output
Show output from: Build
1>c:\users\egede\onedrive\belgeler\visual studio 2012\projects\cs300\hw22222\egedemirci_demirci_ege_hw2.cpp(290): warning C4244: '++' : conversion from 'double' to '__int64',
1>c:\users\egede\onedrive\belgeler\visual studio 2012\projects\cs300\hw22222\egedemirci_demirci_ege_hw2.cpp(294): warning C4244: '++' : conversion from 'double' to '__int64',
1> BinaryTree.cpp
1> AvlTree.cpp
1> Generating Code...
1> HW22222.vcxproj -> C:\Users\egede\OneDrive\Belgeler\Visual Studio 2012\Projects\CS300\HW22222\Debug\HW22222.exe
===== Build: 1 succeeded, 0 failed, 0 up-to-date, 0 skipped =====
```

Welcome to the Notebook!

Section "Courseworks" has been inserted into the AVL notebook.

[AVL] Elapsed time: 0 microseconds

Section "Courseworks" has been inserted into the BST notebook.

[BST] Elapsed time: 0 microseconds

Section "Phonebook" has been inserted into the AVL notebook.

[AVL] Elapsed time: 713 microseconds

Section "Phonebook" has been inserted into the BST notebook.

[BST] Elapsed time: 124437 microseconds

Section "Movies" has been inserted into the AVL notebook.

[AVL] Elapsed time: 18449 microseconds

Section "Movies" has been inserted into the BST notebook.

[BST] Elapsed time: 18116 microseconds

## MENU

Please enter an input between [1 - 6]:

1- Display the sections [AVL]

2- Display the sections [BST]

3- Select a section

4- Add new section

5- Delete a section

6- Exit

Input: 1

\*\*\*\*\*

Courseworks

Movies

Phonebook

\*\*\*\*\*

Input: 2

\*\*\*\*\*

Courseworks

Movies

Phonebook

\*\*\*\*\*

Input: 4

Enter a title for the section: TEST\_SECTION\_ADD

The new section "TEST\_SECTION\_ADD" has been inserted.

Input: 1

\*\*\*\*\*

Courseworks

Movies

Phonebook

TEST\_SECTION\_ADD

\*\*\*\*\*

Input: 2

\*\*\*\*\*

Courseworks

Movies

Phonebook

TEST\_SECTION\_ADD

\*\*\*\*\*

Input: 4

Enter a title for the section: TEST\_SECTION\_DELETE

The new section "TEST\_SECTION\_DELETE" has been inserted.

Input: 1

\*\*\*\*\*

Courseworks

Movies

Phonebook

TEST\_SECTION\_ADD

TEST\_SECTION\_DELETE

\*\*\*\*\*

Input: 2

\*\*\*\*\*

Courseworks

Movies

Phonebook

TEST\_SECTION\_ADD

TEST\_SECTION\_DELETE

\*\*\*\*\*

Input: 5

Enter the title of the section: TEST\_SECTION\_DELETE

The section has been deleted.

Input: 1

\*\*\*\*\*

Courseworks

Movies

Phonebook

TEST\_SECTION\_ADD

\*\*\*\*\*

Input: 2

\*\*\*\*\*

Courseworks

Movies

Phonebook

TEST\_SECTION\_ADD

\*\*\*\*\*

Input: 3

Enter the title of the section: TEST\_SECTION\_DELETE

Invalid title!

Input: 3

Enter the title of the section: TEST\_SECTION\_ADD

Selected section -> TEST\_SECTION\_ADD

Please enter an input between [1 - 7]:

1- Display the items [AVL]

2- Display the items [BST]

3- Display the information of a item

4- Add new item

5- Update the information of a item

6- Delete an item

7- Return to main menu

Input: 1

\*\*\*\*\*

\*\*\*\*\*

Input: 2

\*\*\*\*\*

\*\*\*\*\*

Input: 4

Enter a title for the item: TEST\_ITEM\_ADD\_1

Enter a description for the item: DESCRIPTION\_ITEM\_ADD\_1

[AVL] Elapsed time: 0 microseconds

[BST] Elapsed time: 0 microseconds

The new item "TEST\_ITEM\_ADD\_1" has been inserted.

Input: 1

\*\*\*\*\*

TEST\_ITEM\_ADD\_1

\*\*\*\*\*

Input: 2

\*\*\*\*\*

TEST\_ITEM\_ADD\_1

\*\*\*\*\*

Input: 3

Enter the title of the item: TEST\_ITEM\_ADD\_1

[AVL] Elapsed time: 0 microseconds

[BST] Elapsed time: 0 microseconds

DESCRIPTION\_ITEM\_ADD\_1

Input: 4

Enter a title for the item: TEST\_ITEM\_ADD\_2

Enter a description for the item: DESCRIPTION\_ITEM\_ADD\_2

[AVL] Elapsed time: 0 microseconds

[BST] Elapsed time: 0 microseconds

The new item "TEST\_ITEM\_ADD\_2" has been inserted.

Input: 1

\*\*\*\*\*

TEST\_ITEM\_ADD\_1

TEST\_ITEM\_ADD\_2

\*\*\*\*\*

Input: 2

\*\*\*\*\*

TEST\_ITEM\_ADD\_1

TEST\_ITEM\_ADD\_2

\*\*\*\*\*

Input: 3

Enter the title of the item: TEST\_ITEM\_ADD\_2

[AVL] Elapsed time: 0 microseconds

[BST] Elapsed time: 0 microseconds

DESCRIPTION\_ITEM\_ADD\_2

Input: 4

Enter a title for the item: TEST\_ITEM\_DELETE

Enter a description for the item: DESCRIPTION\_ITEM\_DELETE

[AVL] Elapsed time: 0 microseconds

[BST] Elapsed time: 0 microseconds

The new item "TEST\_ITEM\_DELETE" has been inserted.

Input: 1

\*\*\*\*\*

TEST\_ITEM\_ADD\_1

TEST\_ITEM\_ADD\_2

TEST\_ITEM\_DELETE

\*\*\*\*\*

Input: 2

\*\*\*\*\*

TEST\_ITEM\_ADD\_1

TEST\_ITEM\_ADD\_2

TEST\_ITEM\_DELETE

\*\*\*\*\*

Input: 3

Enter the title of the item: TEST\_ITEM\_DELETE

[AVL] Elapsed time: 0 microseconds

[BST] Elapsed time: 0 microseconds

DESCRIPTION\_ITEM\_DELETE

Input: 6

Enter the title of the item: TEST\_ITEM\_DELETE

[AVL] Elapsed time: 0 microseconds

[BST] Elapsed time: 0 microseconds

The item "TEST\_ITEM\_DELETE" has been deleted.

Input: 1

\*\*\*\*\*

TEST\_ITEM\_ADD\_1

TEST\_ITEM\_ADD\_2

\*\*\*\*\*

Input: 2

\*\*\*\*\*

TEST\_ITEM\_ADD\_1



TEST\_ITEM\_ADD\_2

\*\*\*\*\*

Input: 3

Enter the title of the item: TEST\_ITEM\_DELETE

[AVL] Elapsed time: 0 microseconds

[BST] Elapsed time: 0 microseconds

Invalid title.

Input: 4

Enter a title for the item: TEST\_ITEM\_UPDATE

Enter a description for the item: DESCRIPTION\_ITEM\_UPDATE\_BEFORE

[AVL] Elapsed time: 0 microseconds

[BST] Elapsed time: 0 microseconds

The new item "TEST\_ITEM\_UPDATE" has been inserted.

Input: 1

\*\*\*\*\*

TEST\_ITEM\_ADD\_1

TEST\_ITEM\_ADD\_2

TEST\_ITEM\_UPDATE

\*\*\*\*\*

Input: 2

\*\*\*\*\*

TEST\_ITEM\_ADD\_1

TEST\_ITEM\_ADD\_2

TEST\_ITEM\_UPDATE

\*\*\*\*\*

Input: 3

Enter the title of the item: TEST\_ITEM\_UPDATE

[AVL] Elapsed time: 0 microseconds

[BST] Elapsed time: 0 microseconds

DESCRIPTION\_ITEM\_UPDATE\_BEFORE

Input: 5

Enter the title of the item: TEST\_ITEM\_UPDATE

[AVL] Elapsed time: 0 microseconds

[BST] Elapsed time: 0 microseconds

Enter the new information: DESCRIPTION\_ITEM\_UPDATE\_AFTER

The content TEST\_ITEM\_UPDATE has been updated.

Input: 1

\*\*\*\*\*

TEST\_ITEM\_ADD\_1

TEST\_ITEM\_ADD\_2

TEST\_ITEM\_UPDATE

\*\*\*\*\*

Input: 2

\*\*\*\*\*

TEST\_ITEM\_ADD\_1

TEST\_ITEM\_ADD\_2

TEST\_ITEM\_UPDATE

\*\*\*\*\*

Input: 3

Enter the title of the item: TEST\_ITEM\_UPDATE

[AVL] Elapsed time: 0 microseconds

[BST] Elapsed time: 0 microseconds

DESCRIPTION\_ITEM\_UPDATE\_AFTER

Input: 7

MENU

Please enter an input between [1 - 6]:

1- Display the sections [AVL]

2- Display the sections [BST]

3- Select a section

4- Add new section

5- Delete a section

6- Exit

Input: 1

\*\*\*\*\*

Courseworks

Movies

Phonebook

TEST\_SECTION\_ADD

\*\*\*\*\*

Input: 2

\*\*\*\*\*

Courseworks

Movies

Phonebook

TEST\_SECTION\_ADD

\*\*\*\*\*

Input: 3

Enter the title of the section: Courseworks

Selected section -> Courseworks

Please enter an input between [1 - 7]:

1- Display the items [AVL]

2- Display the items [BST]

3- Display the information of a item

4- Add new item

5- Update the information of a item

6- Delete an item

7- Return to main menu

Input: 3

Enter the title of the item: CS300

[AVL] Elapsed time: 0 microseconds

[BST] Elapsed time: 0 microseconds

the homework is due Sunday

Input: 3

Enter the title of the item: SPS303

[AVL] Elapsed time: 0 microseconds

[BST] Elapsed time: 0 microseconds

check the readings

Input: 4

Enter a title for the item: A\_TEST\_COURSE

Enter a description for the item: INFO

[AVL] Elapsed time: 0 microseconds

[BST] Elapsed time: 0 microseconds

The new item "A\_TEST\_COURSE" has been inserted.

Input: 6

Enter the title of the item: A\_TEST\_COURSE

[AVL] Elapsed time: 0 microseconds

[BST] Elapsed time: 0 microseconds

The item "A\_TEST\_COURSE" has been deleted.

Input: 4

Enter a title for the item: Z\_TEST\_COURSE

Enter a description for the item: INFO

[AVL] Elapsed time: 0 microseconds

[BST] Elapsed time: 0 microseconds

The new item "Z\_TEST\_COURSE" has been inserted.

Input: 6

Enter the title of the item: Z\_TEST\_COURSE

[AVL] Elapsed time: 0 microseconds

[BST] Elapsed time: 0 microseconds

The item "Z\_TEST\_COURSE" has been deleted.

Input: 7

## MENU

Please enter an input between [1 - 6]:

1- Display the sections [AVL]

2- Display the sections [BST]

3- Select a section

4- Add new section

5- Delete a section

6- Exit

Input: 3

Enter the title of the section: Movies

Selected section -> Movies

Please enter an input between [1 - 7]:

1- Display the items [AVL]

2- Display the items [BST]

3- Display the information of a item

4- Add new item

5- Update the information of a item

6- Delete an item

7- Return to main menu

Input: 3

Enter the title of the item: Aurora

[AVL] Elapsed time: 2720 microseconds

[BST] Elapsed time: 2760 microseconds

8.1

Input: 3

Enter the title of the item: Zingaresca

[AVL] Elapsed time: 2719 microseconds

[BST] Elapsed time: 2640 microseconds

6.6

Input: 4

Enter a title for the item: A\_TEST\_MOVIE

Enter a description for the item: INFO

[AVL] Elapsed time: 6791 microseconds

[BST] Elapsed time: 6728 microseconds

The new item "A\_TEST\_MOVIE" has been inserted.

Input: 6

Enter the title of the item: A\_TEST\_MOVIE

[AVL] Elapsed time: 6800 microseconds

[BST] Elapsed time: 6719 microseconds

The item "A\_TEST\_MOVIE" has been deleted.

Input: 4

Enter a title for the item: Z\_TEST\_MOVIE

Enter a description for the item: INFO

[AVL] Elapsed time: 6880 microseconds

[BST] Elapsed time: 6840 microseconds

The new item "Z\_TEST\_MOVIE" has been inserted.

Input: 6

Enter the title of the item: Z\_TEST\_MOVIE

[AVL] Elapsed time: 6760 microseconds

[BST] Elapsed time: 6800 microseconds

The item "Z\_TEST\_MOVIE" has been deleted.

Input: 7

MENU

Please enter an input between [1 - 6]:

1- Display the sections [AVL]

2- Display the sections [BST]

3- Select a section

4- Add new section

5- Delete a section

6- Exit

Input: 3

Enter the title of the section: Phonebook

Selected section -> Phonebook

Please enter an input between [1 - 7]:

1- Display the items [AVL]

2- Display the items [BST]

3- Display the information of a item

4- Add new item

5- Update the information of a item

6- Delete an item

7- Return to main menu

Input: 3

Enter the title of the item: Aaban

[AVL] Elapsed time: 159 microseconds

[BST] Elapsed time: 199 microseconds

0014462476530

Input: 3

Enter the title of the item: Zyrie

[AVL] Elapsed time: 159 microseconds

[BST] Elapsed time: 200 microseconds

0017707501460

Input: 4

Enter a title for the item: A\_TEST\_CONTACT

Enter a description for the item: INFO

[AVL] Elapsed time: 439 microseconds

[BST] Elapsed time: 480 microseconds

The new item "A\_TEST\_CONTACT" has been inserted.

Input: 6

Enter the title of the item: A\_TEST\_CONTACT

[AVL] Elapsed time: 398 microseconds

[BST] Elapsed time: 480 microseconds

The item "A\_TEST\_CONTACT" has been deleted.

Input: 4

Enter a title for the item: Z\_TEST\_CONTACT

Enter a description for the item: INFO

[AVL] Elapsed time: 398 microseconds

[BST] Elapsed time: 520 microseconds

The new item "Z\_TEST\_CONTACT" has been inserted.

Input: 6

Enter the title of the item: Z\_TEST\_CONTACT

[AVL] Elapsed time: 479 microseconds

[BST] Elapsed time: 519 microseconds

The item "Z\_TEST\_CONTACT" has been deleted.



Input: 7

## MENU

Please enter an input between [1 - 6]:

1- Display the sections [AVL]

2- Display the sections [BST]

3- Select a section

4- Add new section

5- Delete a section

6- Exit

Input: 6

Press any key to continue . . .