

Assignment 4 (Given Dec 15, Due: Dec 22)

1. Implement the Binary Search Tree (BST) ADT using **iterative** functions (constructor, copy constructor, operator=, destructor, insert, erase, find, update, clear, reset, is_last, get_next).
2. Modify your assignment 3, part 3 to use the map (#include <map>) ADT implemented in the STL to keep records of books. Use the book id as the key and other details as value of the record. Provide search functionality only on the basis of book id.

Instructions:

Following these instructions carries marks.

- Start early.
- Before submission, remove all the debugging and temporary files (in visual studio select menu *Build* → *Clean Solution*). Only submit the .cpp and .h files (no visual studio or other files). Select .cpp and .h files and compress them using your full registration number and name, (e.g., 04071512007-Ali-Ahmad.zip). Submit via email (rabbasi@qau.edu.pk) within due time (no extensions).
- The source code should be properly commented and indented.
- Try to avoid using conio.h, as it is not part of standard C++. Don't use clear screen function. Don't use getch function, instead use the standard getchar function (if required).
- Any genuine efforts in each part, would result in at least 50% marks (in that part). Make sure you put your best efforts to solve every part. Each part carries its own marks. Different parts are highlighted in the assignment description (see the bold words). You are getting 50% marks for any genuine efforts in all the parts to encourage you to learn, even if your program does not compile and is full of bugs). Therefore, please do not plagiarize! Plagiarism includes taking help in any form including but not limited to code, concept or idea for the solution, algorithm, and pseudocode. Taking help from any source including but not limited to classmates, seniors, or internet is prohibited. In case your code is plagiarized, you'll get -50% absolute marks of the whole assignment. For example, if the assignment is of 50 marks, you will get -25 marks. **Even a single plagiarized statement will count as plagiarism for the whole assignment.** Plagiarism in two assignments would result in getting failed in the course.