If this lab is an Individual assignment, you must do all coded programs on your own. You may ask others for help on the language syntax, but you must organize and present your own logical solution to the problem. No lab is complete until the MyClass submits the signed pledge form associated with that lab. I realize that no coded programs will be graded until I turn in the sign & pledge form associated with that program; any late penalties will continue to compound until the pledge form is submitted.

If this lab is a team assignment, both team members may share logic as they program side by side on their own computers. Each person must type all of his/her own code as part of the learning process. Team assignments are never to be "You do this portion and I'll do that portion" or "You do this lab and I'll do the next lab".

Some of the lab assignments will have short answer questions. These short answer questions will be spot checked and graded for completion, but not checked for accuracy. Once these labs are graded and returned, I encourage you to compare answers with another class member who has also had the lab graded and returned.

I/We realize that the penalty for turning in work that is not my own, or assisting others in doing so, can range from an "F" in the class to dismissal from Trinity University. I realize that it is a violation of academic integrity to share any portion of this lab with any person (outside my 2320 team & professor)!

Print Name ___________________________ Time Required = ______.____ Hrs.
Signature _______________________________________________________________ (pledged)

OOP- 9 DA-BinTree 3 Print Only Page 1-2
Individual Assignment
25 Points

1] In lecture, we discussed three approaches to traversals. List them.

2] ______ {Y/N} Do I have to memorize the Stack approach to traversals? (Hint N)

3] ______ {Y/N} Do I have to memorize the Right In-Threaded approach to traversals? (Hint N)

4] ______ {Y/N} Do I have to be able to code the Recursive approach to traversals? (Hint Y)

5] Sketch the Right-InThreaded Binary Tree if the data were entered in the following order: F B G A D I C E H. Be sure to draw threads with broken arrows.

6] In the space above, sketch a complete tree with 7 nodes containing values 1,2,3,…,7

7] In the space above, sketch a skew tree with 7 nodes containing values 1,2,3,…,7
1] Copy your folder **TomH-DA-BinTree-2** → **Call It TomH-DA-BinTree-3** (Use your first name and last initial). If you are behind and have not turned in **TomH-DA-BinTree-2**, you must submit the signed pledge form & folder **TomH-DA-BinTree-2** if you want any credit for that lab.

2] This application is a direct access file representation of the binary tree.

3] ________ Initial/Pledge → The constructor and destructor work perfectly!
   ________ Initial/Pledge → GetNode & Freenode work perfectly!
   ________ Initial/Pledge → Empty works perfectly!
   ________ Initial/Pledge → SetLeft works perfectly!
   ________ Initial/Pledge → SetRight works perfectly!
   ________ Initial/Pledge → ValidHeader works perfectly!
   ________ Initial/Pledge → ValidNode works perfectly!
   ________ Initial/Pledge → Inplace works perfectly!
   ________ Initial/Pledge → Preorder Traversal works perfectly!
   ________ Initial/Pledge → Prostorder Traversal works perfectly!
   ________ Initial/Pledge → Inorder Traversal works perfectly!
   ________ Initial/Pledge → Search (Integer) works perfectly!
   ________ Initial/Pledge → Search (String) works perfectly!
   ________ Initial/Pledge → Delete works Perfectly!
   ________ I realize it is ok to use TestDA_BinTree2 if want to, but the call to it is now commented out in main.
   ________ Initial/Pledge → All of the documentation has been updated properly. I am the author of all functions in which I typed in the code!
   ________ Initial/Pledge → I set the Diagnostic Level to 60 & recompiled the program before placing it in the drop box.
   ________ Initial/Pledge → All of the testing is exposed for diagnostic levels **1-30 & 60-65**
   ________ Initial/Pledge → I have backed up the project on my personal computer and on my network drive.

**1 Point**

(1) **Set the diagnostic level to 60 &**
(2) **Compile the program.**
(3) **Copy The Program To The Drop Box** (Copy it to your To Be Graded Folder on Mars!)

```c
#define DA_BINTREE_DIAGNOSTICS_LEVEL 60
```

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**What To Turn In**

---------- No Lab Is Complete Until Both Are Complete ----------

1] **You sign & submit the Pledge form.**
   a) Make sure that all program files have a header box with a purpose that clearly defines what you are accomplishing in this lab.
   b) Make sure that each and every program function has a well-formed documentation box that clearly describes the purpose.
   c) Make sure that each and every program function header box has the appropriate Written By and Date.
   d) Review the Pledge statement
   e) Sign & Pledge
   f) Record the amount of time you think you spent on this lab
   g) Staple all pages of this lab. Fold in half length-wise (like a hot-dog). Put your name on the outside. Place it on the professor desk before the beginning of lecture on the day it is due. The penalty for late homework will not exceed 25% off per day.

2] **Place all programming code associated with this program, if any, in the Professor’s Code Drop Box**
   a) I do not accept programs by mail; do not submit labs via email!

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**Comments**

A] Programs that do not compile are worth little, if anything.
B] If a print statement format is off, the penalties will often be less than the 25% per day late penalty; turn in the lab. You would not be happy if you went to Best Buy and purchased a large screen TV that did everything except show the picture; you would consider it pretty worthless. Most users consider software that does not work properly pretty useless as well. If the lab is not working correctly, credit will be small (if any); you might be better to accept a 25% (1 day) late penalty and turn in the lab working correctly!
C] Start all programs early so that you can get in contact with the professor if you have problems.
D] If you are turning in this lab late, you may
   - hand it to me if I am in the office
   - put it in the mail box outside my office door
   - slide it under the outer door to our suite (if locked)
   - slide it under my office door. The sooner I get late labs, the sooner the late penalty meter quits clicking.
E] Backup your programs in at least three places. Put a copy on your Y drive. Put a copy on your flash drive. Put a copy on your personal computer. Send yourself a copy in your e-mail.