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Assessment Task 1.2 – Binary Search Tree

Test Table:

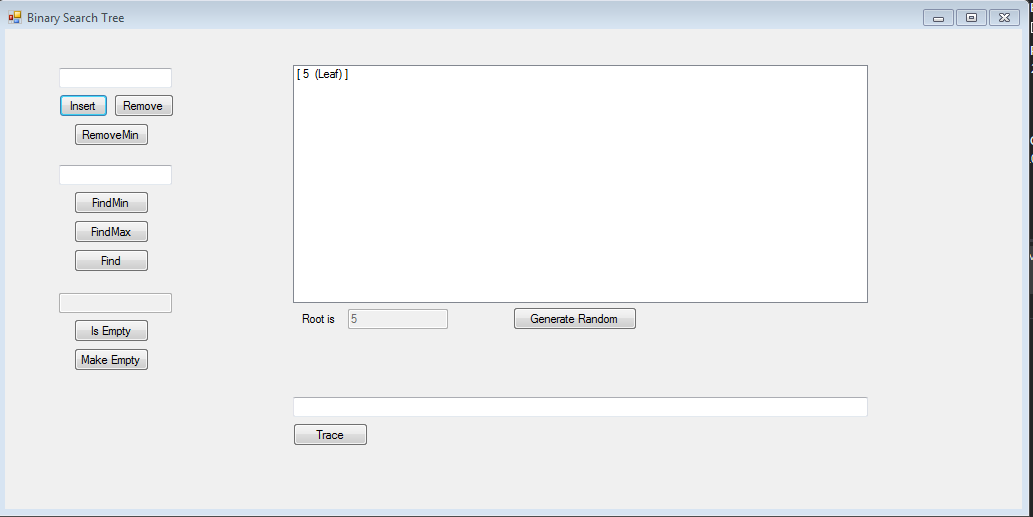
|  |  |  |
| --- | --- | --- |
| Button | Number | Result |
| Insert | 5 | 5(Leaf) |
| Insert | 10 | 5 - R:10(Leaf) |
| Insert | 2 | 5 – L:2(Leaf) – R:10(Leaf) |
| Insert | 7 | 5 – L:2(Leaf) – R:[10(Leaf)- L:7(Leaf) ] |
| Remove | 5 | 7- L:2(Leaf) – R:10(Leaf) |
| FindMin | - | 2 |
| FindMax | - | 10 |
| Find | 3 | Not Found! |
| Find | 2 | Found! |
| Is Empty | - | No |
| Make Empty | - | Clears everything |
| Is Empty | - | Yes |
| Generate Random | - | Generates 10 random numbers for tree |
| Trace | - | Shows the record of previous and current numbers in the tree. |

Test Table for Error Handling:

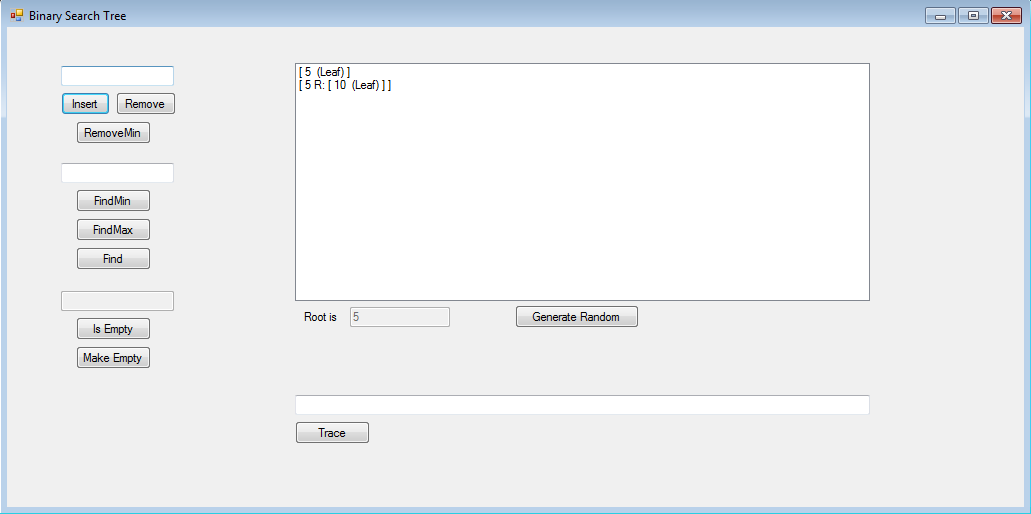
|  |  |  |
| --- | --- | --- |
| Button | Number or Entry | Result |
| Insert | X | Message Box “Please enter a number” |
| Remove | X | Message Box “Please enter a number” |
| Find | null | Message Box “Please enter a number” |

Insert Button:

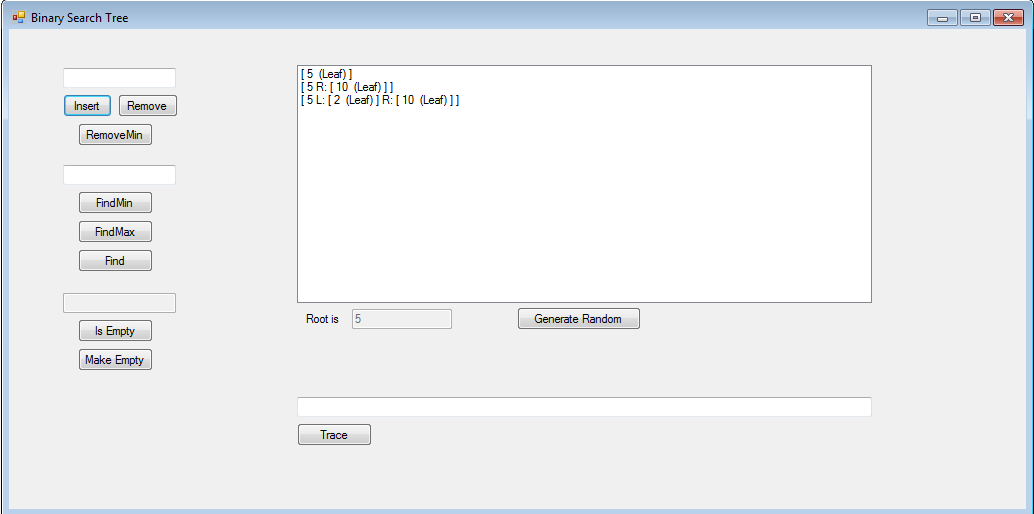
Number 5:



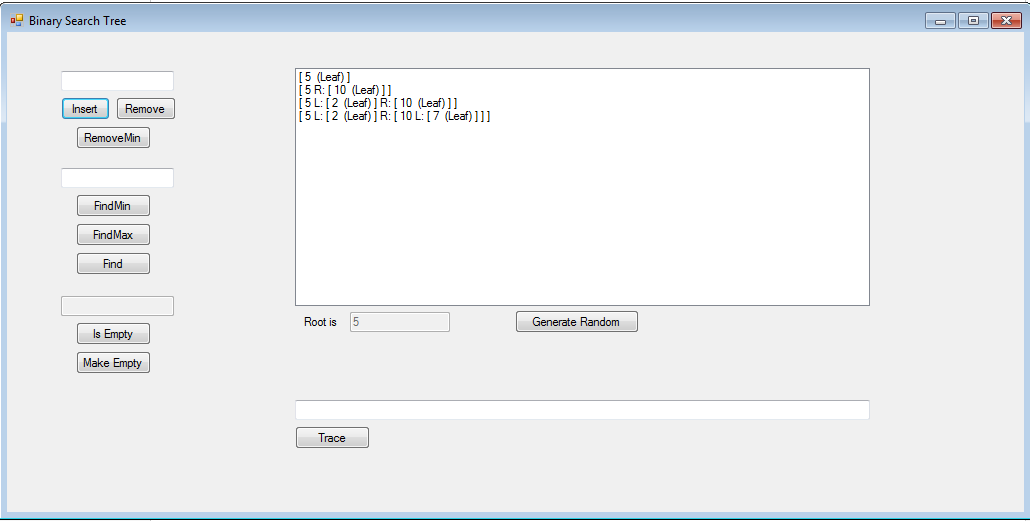
Number 10:



Number 2:

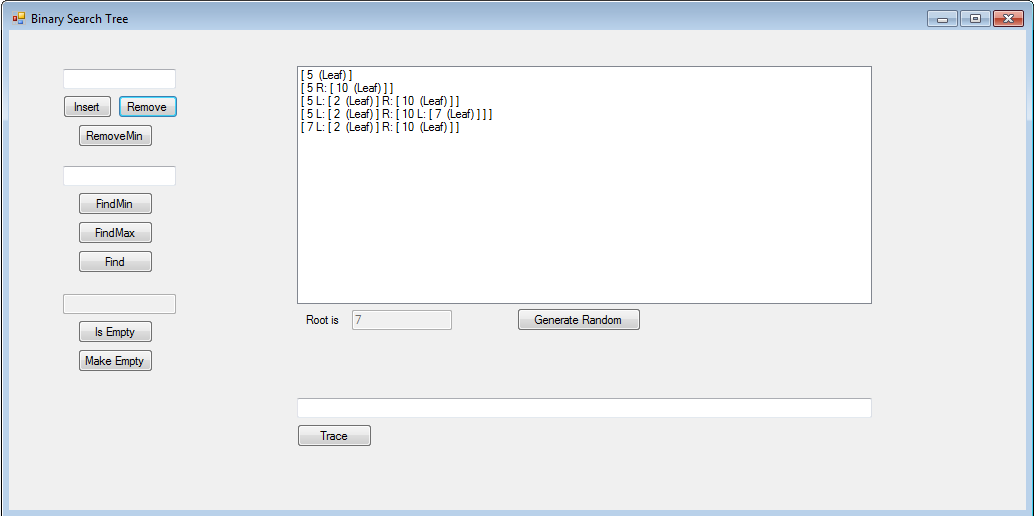


Number 7:

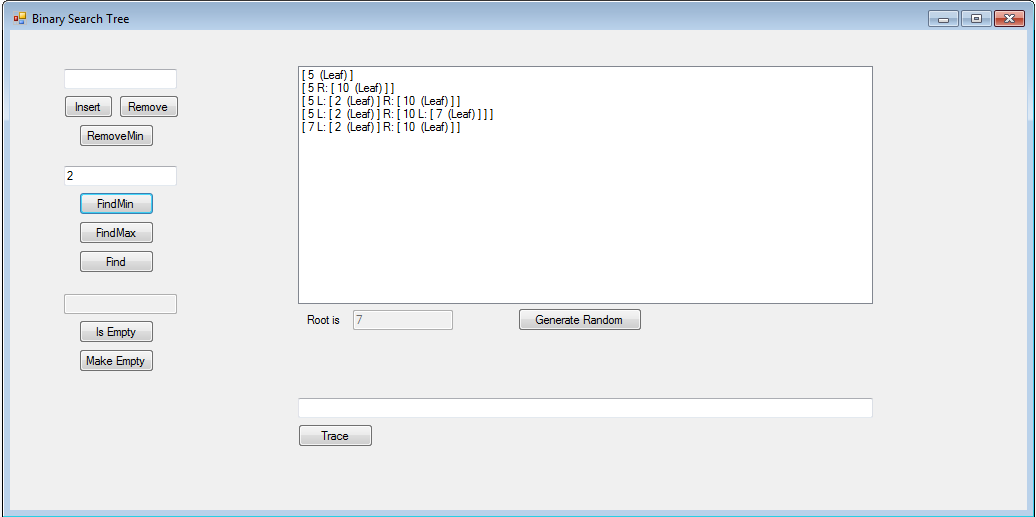


Remove Button:

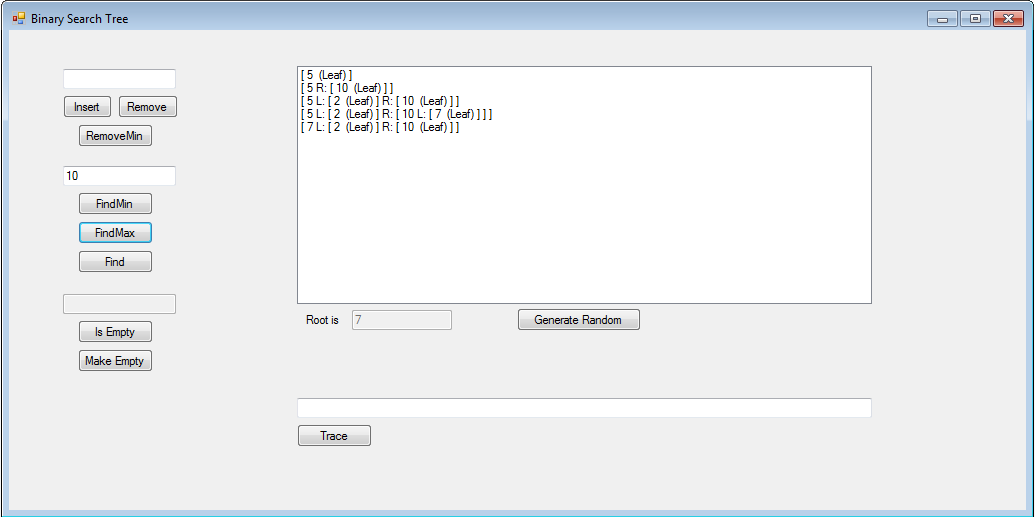
Remove 5:



FindMin Button:

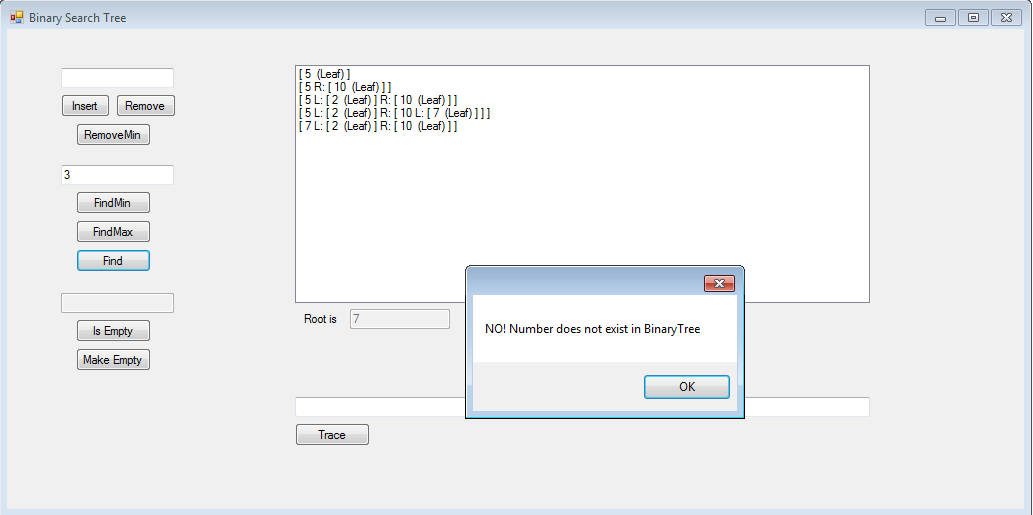


FindMax Button:

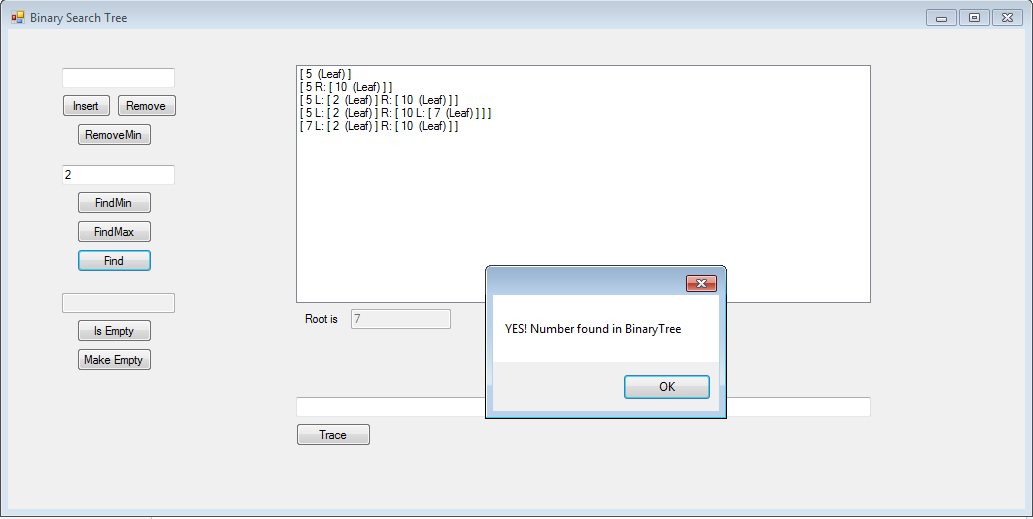


Find Button:

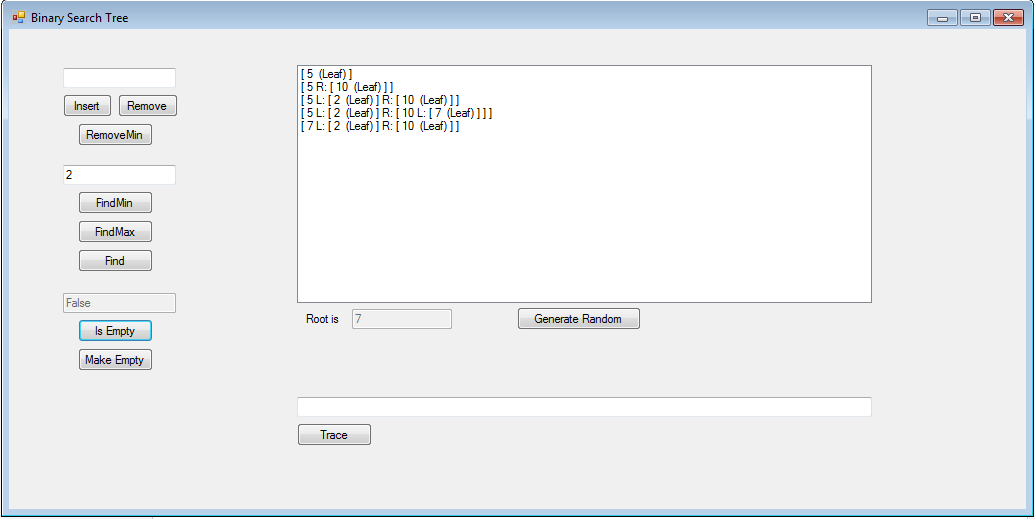
Number 3:



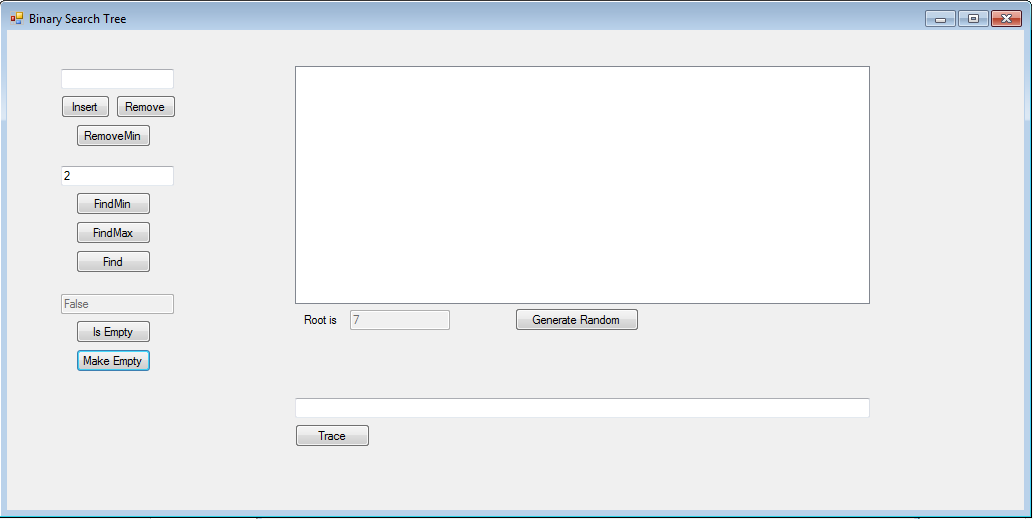
Number 2:



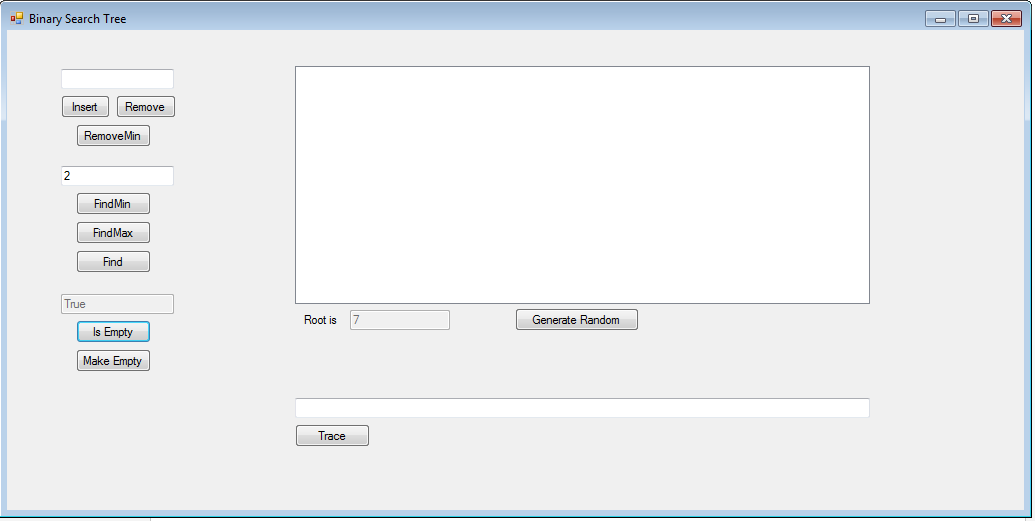
IsEmpty Button:



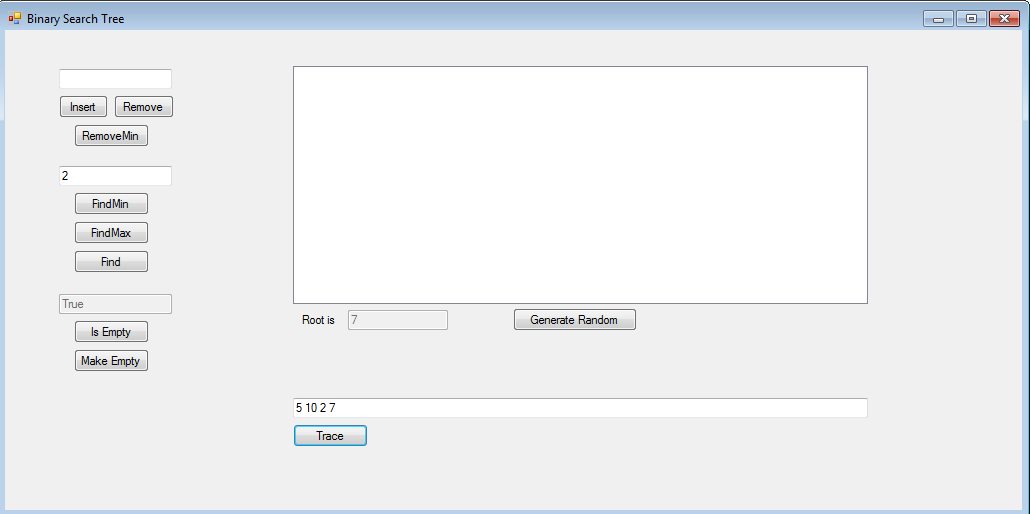
MakeEmpty Button:



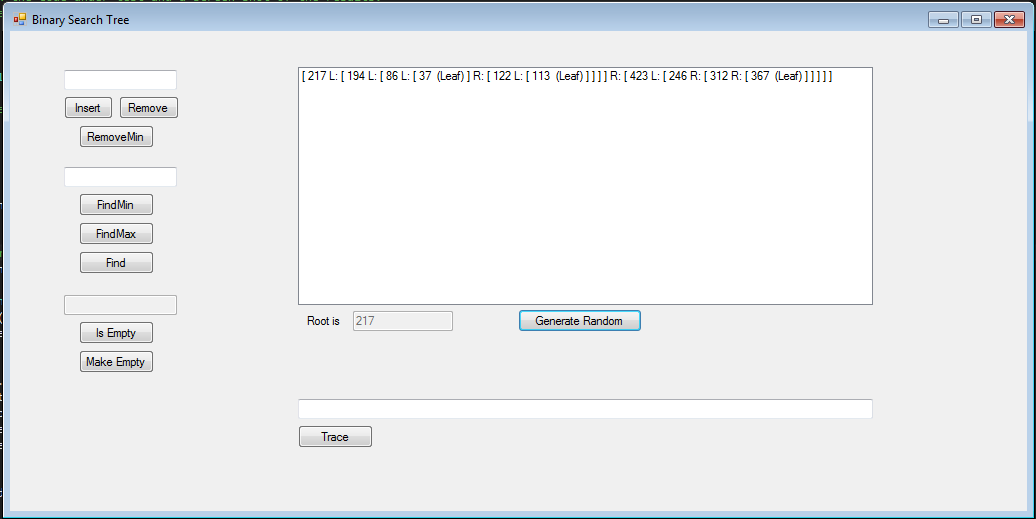
IsEmpty Button(after makeEmpty Button used):



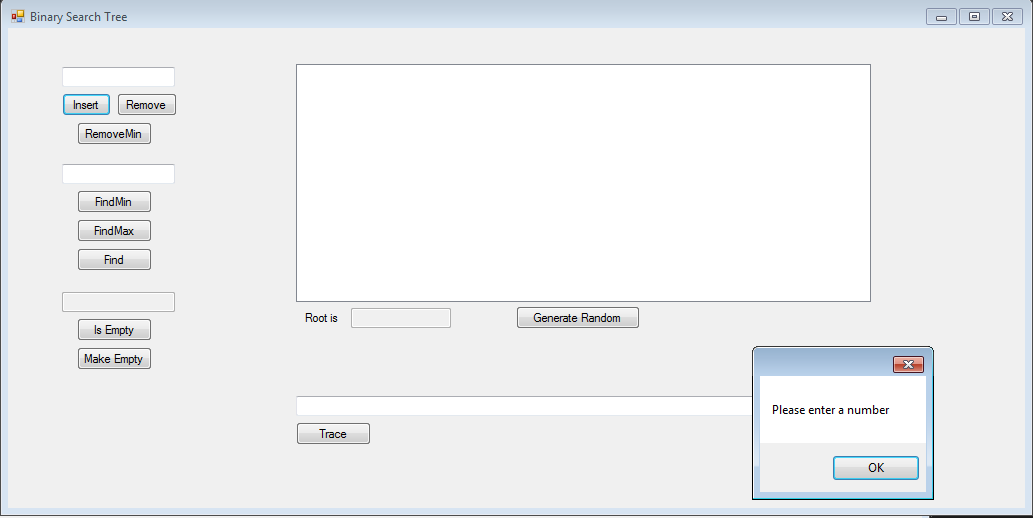
Trace:



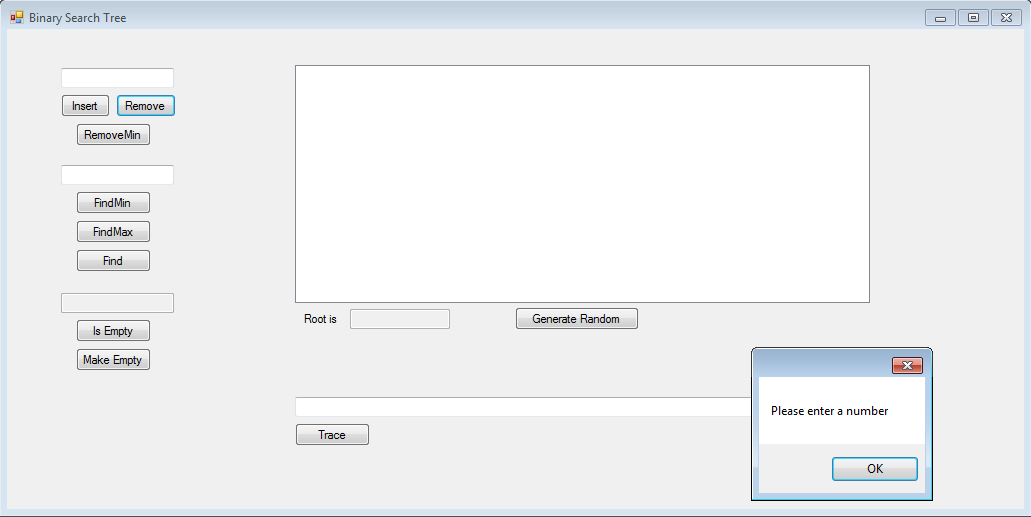
Generate Random Button:



Insert Button(Error Handling):



Remove Button (Error Handling):



Find Button (Error Handling):

