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1: /*-----Binary Search Tree-----*/
2:
3: #include<iostream>
4: using namespace std;
5:
6: struct node
7: {
8:     int data;
9:     node * left;
10:    node * right;
11: };
12:
13: class SearchTree
14: {
15:     public:
16:         node * root;
17:         SearchTree()
18:         {
19:             root = NULL;
20:         }
21:
22:         void insert(int d)
23:         {
24:             node * pointer, * last_node, * temp = new node();
25:
26:             temp -> data = d;
27:             temp -> left = NULL;
28:             temp -> right = NULL;
29:
30:             pointer = root;
31:             if(root == NULL)
32:             {
33:                 root = temp;
34:                 return;
35:             }
36:             while(pointer != NULL)
37:             {
38:                 last_node = pointer;
39:                 if(pointer -> data > d)
40:                 {
41:                     pointer = pointer -> left;
42:                 }
43:                 else
44:                 {
45:                     pointer = pointer -> right;
46:                 }

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47:         }
48:         if(last_node -> data > d)
49:         {
50:             last_node -> left = temp;
51:         }
52:         else
53:         {
54:             last_node -> right = temp;
55:         }
56:     }
57: void search(int y)
58: {
59:     node * pointer;
60:     pointer = root;
61:     while(pointer != NULL )
62:     {
63:         if(pointer -> data == y)
64:         {
65:             cout << y << " is present. \n";
66:         }
67:         else if(pointer -> data > y)
68:         {
69:             pointer = pointer -> left;
70:         }
71:         else
72:         {
73:             pointer = pointer -> right;
74:         }
75:     }
76:     if(pointer == NULL)
77:     {
78:         cout << y << " is absent. \n";
79:     }
80: }
81: void print(node *k)
82: {
83:     if(k != NULL)
84:     {
85:         print(k -> left);
86:         cout << k -> data << " ";
87:         print(k -> right);
88:     }
89: }
90: };
91:
92: int main()

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93: {
94:     SearchTree tree;
95:     int num;
96:     cout << "How many nodes you want to add? \n";
97:     cin >> num;
98:     int data;
99:     cout << "Enter the nodes: \n";
100:    for(int i = 0; i < num; i++)
101:    {
102:        cin >> data;
103:        tree.insert(data);
104:    }
105:
106:    tree.print(tree.root);
107:
108:    return 0;
109:
110: }
```