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1: // C program to convert a binary tree to its mirror
2: #include<stdio.h>
3: #include<stdlib.h>
4:
5: /* A binary tree node has data, pointer
6: to left child and a pointer to right child */
7: struct Node
8: {
9:     int data;
10:    struct Node* left;
11:    struct Node* right;
12: };
13:
14: /* Helper function that allocates a new node with the
15: given data and NULL left and right pointers. */
16: struct Node* newNode(int data)
17: {
18:
19: struct Node* node = (struct Node*)
20:                     malloc(sizeof(struct Node));
21: node->data = data;
22: node->left = NULL;
23: node->right = NULL;
24:
25: return(node);
26: }
27:
28:
29: /* Change a tree so that the roles of the left and
30: right pointers are swapped at every node.
31:
32: So the tree...
33:     4
34:    / \
35:   2  5
36:  / \
37: 1  3
38:
39: is changed to...

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40:      4
41:      / \
42:     5  2
43:        / \
44:       3  1
45:  */
46: void mirror(struct Node* node)
47: {
48:     if (node==NULL)
49:         return;
50:     else
51:     {
52:         struct Node* temp;
53:
54:         /* do the subtrees */
55:         mirror(node->left);
56:         mirror(node->right);
57:
58:         /* swap the pointers in this node */
59:         temp      = node->left;
60:         node->left = node->right;
61:         node->right = temp;
62:     }
63: }
64:
65: /* Helper function to print Inorder traversal.*/
66: void inOrder(struct Node* node)
67: {
68:     if (node == NULL)
69:         return;
70:
71:     inOrder(node->left);
72:     printf("%d ", node->data);
73:     inOrder(node->right);
74: }
75:
76:
77: /* Driver program to test mirror() */
78: int main()

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79: {
80: struct Node *root = newNode(1);
81: root->left = newNode(2);
82: root->right = newNode(3);
83: root->left->left = newNode(4);
84: root->left->right = newNode(5);
85:
86: /* Print inorder traversal of the input tree */
87: printf("Inorder traversal of the constructed"
88:        " tree is \n");
89: inOrder(root);
90:
91: /* Convert tree to its mirror */
92: mirror(root);
93:
94: /* Print inorder traversal of the mirror tree */
95: printf("\nInorder traversal of the mirror tree"
96:        " is \n");
97: inOrder(root);
98:
99: return 0;
100: }
101:
```