

1: Intro to structures

Given 3 rectangles with their topleft and bottomright points
find the sum of their areas without using structures.

Can you do the above problem for 20 rectangles with
3d coordinates

Now solve the first question using structures

2: Basic level questions of structures

Aladin has been given two line segments (defined uniquely by two endpoints).
He turns to you to ask if the segments intersect or not. Can you help him?

INPUT: Two line segments, each containing four floating point numbers,
denoting the X_1 , Y_1 , X_2 and Y_2 respectively

OUTPUT: In case the line segments do not intersect, print "No".
Otherwise, print "Yes"

3: Pointers in structures

Swap the co-ordinates topleft coordinates of two rectangles

Now swap the same by calling them in another function

4: Making a node

Create a node which stores a character value

Create an array of 10 nodes. Store your name in these nodes and link them in series. Using the initial node surf through the nodes and print the characters in each.

Can you do the same problem without using array and making the number of nodes equal to your name?

5: Working with stack

Create a code to insert a node at the beginning and name it push
Create a code to delete a node from the beginning and name it pop

Create a code to return the value from the first node and name it top

Create a code that reverses a string using the above codes

6: Advanced questions on linked lists

Create a code to insert a node between any random nodes
Create a code to delete a node

Write a code to delete double letters
EXAMPLE:- ESSCC101 will be changed to ESC101

<http://geeksquiz.com/linked-list-set-2-inserting-a-node/>
<http://geeksquiz.com/linked-list-set-3-deleting-node/>

7: Some extra codes for practice

Search through a linked list

Create a doubly linked list