

Adani Institute of Infrastructure Engineering

Information & Communication Technology Department

Coding challenge (Sem IV, Sem VI)

Theme: Code Optimization Problem

Problem Statement

You are given one rack space with length a , width b and height c . You are also given 5 different sizes (having varying ports) of switches with dimension as (x_1, y_1, z_1) , (x_2, y_2, z_2) , (x_3, y_3, z_3) , (x_4, y_4, z_4) and (x_5, y_5, z_5) respectively. Each of these switches is associated with distinct points (score).



Input: Your program will ask the user to input dimensions of all 5 switches with instances of each size switches as well as a rack space dimension.

Criteria: summation of volume of all the switches should be greater than volume of rack space.

Output:

You have to arrange maximum of these switches in rack space in such a way that maximum volume of the rack space is covered as well as maximum points (score) can be gained.

Language:

C, C++, Python, Java

Rules:

- **Maximum 2 students per group are allowed.**
- Last date of full / partial submission **Friday April 10, 2020**
- Group needs to **submit complexity analysis** of proposed solution
- **Proposed solution (code) should be run successfully on given test cases** which will be provided during final evaluation
- **Best performing group will be awarded with cash prize and certificate.**

Invigilators:

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