Q1 – pointers: Write a function called swap that swaps the values of two integers using their address.

Q2 – DMA: Write a function that swaps the values of two strings. The size of the strings are unknown.

Q3 – Classes: Write a class called Container that can keeps the capacity of a container in cubic centimeters.

Constructor sets the Capacity of the container. If no capacity is provided constructor sets the capacity to 10 cubic cms.

There are two methods; a setter to set the capacity and a getter to get the capacity.

Overload the operator<< to print the capacity of an object of type container using cout.

Overload the operator+ to return a Containers with the capacity of the sum of the two containers; Csum = C1 + C2;

Q4 –Inheritance: Write a class called Box that is a Container. It has 3 attributes, width, length and height, all in centimeters.

The constructor gets the three values through argument list and sets the corresponding attributes. It also sets the Capacity of the container to product of multiplying the three values.

If no value is provided for the constructor width, length and height are set to 10 cms.

Q5 – Add a method to Container to display its capacity, (If you haven’t done this already) and then add the exact same method to Box to display the width, length and height and the capacity. Make sure if a pointer of type container is pointed to a Box, the display method of Box is called;  
Box B(10, 20, 30);  
Container\* C = &B;  
C->display(); // should display the width, length and height and the capacity.

asd