Lab 9

ID1303: Introduction to Programming

1. Write a program to create a 3D array (of any type) of size $2 \times 3 \times 4$ and print the addresses of all the array locations.

2. Write a program that swaps the values of two variables by passing their addresses. See sample code for passing addresses.

3. Create a typedef structure called complex, which can store the real and imaginary parts of a complex number, and write the following three functions: a function that accepts two complex values and returns their sum, a function that accepts two complex values and returns their product, a function that accepts the address of a complex value and accepts the real and imaginary parts. Test these functions by calling them in main.

4. The library string.h has a function called strcat, which is declared as char *strcat(char *dest, const char *src). It appends (concatenates at the end), the string pointed to by src to the string pointed to by dest. Write your own implemenation of this function. [Don't include string.h in your program.]