CA212 – LABSHEET 3

1) Write a program using a multidimensional array that produces

1	2	3	4	5
2	4	6	8	10
3	6	9	12	15

Initialise your multidimensional array (if it is called table) using a formula (an expression), i.e.

table[n][m] = .. some integer expression with n and m;

Write a function printarray that prints out the array line by line, i.e. pass a one-dimensional array for each line as the parameter.

Can you modify the array within printarray? Try!

2) Write a movie database application.

Use a struct to define a movie consisting of a title (a string of length 20) and a year (an integer). The database shall hold 5 movie entries (use an array of structs).

Read in movie data as follows:

Enter title: Matrix
Enter year: 1999
Enter title: Alien
Enter year: 1979
...

You can use **cin.getline(mystring,20)** to read in a whole line (with spaces, if your movie title contains spaces). You could also read the year as a string and convert it into an integer with **atoi**, e.g. **myInteger = atoi(myString);** . Include **<stdlib.h>** for this functions.

- **atoi:** converts string to **int** type.
- **atol:** converts string to **long** type.
- **atof:** converts string to **float** type.

Print out (define a separate function for this) all movies as follows:

Matrix (1999)
Alien (1979)
...

Write two versions of this function: pass a single movie by value and as a pointer.

Other exercises you could do:

- 4.15, 4.18, 4.32 (Deitel & Deitel, 4/e)