CENG241 Labwork 1

1. Write a C program in which the user fills two seperate dynamic integer arrays (their lengths are also specified by the user) with sorted numbers and these two arrays are merged in a third dynamic array in ascending order. Don't forget to free your arrays when they are no longer needed.

   Enter length of first array: 6
   Enter numbers: 2 4 5 9 17 18
   Enter length of second array: 3
   Enter numbers: 6 13 19
   Merged array: 2 4 5 6 9 13 17 18 19

2. Write a C++ program that will be used to determine cars that require maintainance. Your program should read information for 5 cars from the user (model, total distance in km's, km on last maintainance). A maintainance is mandatory if more than 10.000 km's have been traveled since last maintainance for each car. Use C++ **cin/cout** syntax for I/O operations and use **setw()** to display a properly aligned table with fixed column widths.

   Enter car model: Bolt
   Enter total distance: 30000
   Enter last km: 27000
   Enter car model: Falconer
   Enter total distance: 55000
   Enter last km: 15000
   . . .

Car	Total km	Last km	Needs Maintainance
Bolt	30000	27000	NO
Falconer	55000	15000	YES
. . .			