13.3 LAB TASKS

1. Write a program which decides whether students can appear in the next semester or not, based on their CGPA. It should ask for the number of enrolled students from the user, and then ask for their registration IDs and their CGPAs. Declare two dynamic arrays of the required size and store the IDs in arr1 and CGPA in arr2 in the same order.

   Now according to the policy, the students who have CGPA less than 1.5 are not allowed to appear in the next semester. So your program should find the IDs of these students and display them on the screen with a warning message.
   [50 marks]

2. In the English system of measurement, distances are measured in feet and inches. The length of a living room, for example, might be given as 15'–8", meaning 15 feet plus 8 inches. The hyphen is not a negative sign; it merely separates the feet from the inches.
   Suppose you want to create a drawing that uses the English system for measurement. It will be convenient to store distances as two numbers, representing feet and inches. Create a structure **Distance** having two data members *feet* and *inches.* Create 3 instances of Distance in the main. Initialize one of them with the values 11 feet and 6.25 inches. Take in the values of the members of the 2nd structure from the user. Finally, store the sum of 1st and 2nd instances of Distance in the 3rd instance. Display the sum at the end of the program.
   (**Note:** 1 foot = 12 inches)

   Sample Run:

   Enter feet: 10
   Enter inches: 6.75
   10'- 6.75" + 11'- 6.25" = 22'- 1"

   [50 marks]