**Chapter 4 (Structures)**

**Assignments**

1. Create a structure called Distance that contains two members: feet (type int) and inches (type float). Write a program that uses a structure call Distance. Ask the user to fill in this data for five Distances and store it in array of type Distance. Then display the value of each Distance in 3’-17” format.
2. Create a structure called employee that contains three members; an employee number (type int) and the employee’s compensation (type float) and the starting date (type date). Ask the user to fill in this data for five employees and store it in array of type struct employee and then display the information for each employee.
3. Create a structure called student that contains a name (char array), and roll number (type long). Assume the name has no embedded blanks.

Write a main() program to exercise this structure. It should create an array of type student, and then invite the user to input data for up to 100 students. Finally, it should print out the data for all the students.

1. Create a structure called Disk that contains three members: a disk number (type int), its cost (type float) and its type (either CD, VCD or DVD). You can use enum type to store the type of disk.

Ask the user to fill in this data of a disk, store it in a variable of type struct Disk. The user could select the appropriate disk type by typing c or v or d. Then display the information of the disk.

5. Define an enum type called meridian which can only have two values: am or pm. Define a structure called Time that have four members: hour, minute, seconds (type int) and duration (meridian type). Write a program that declare Time variable and ask to enter value for that Time variable and display Time value on screen in 24 hour format such as 08:05:07 (for 8 hour, 5 minute, 7 seconds, am value) and 18:23:07 (for 6 hour, 23 minute, 7 seconds, pm value).