Structures (Part 1):

Why Learn Structures :
-> To Group Different Data Items as a single Entity
-> Later we will link on structure to another in multiple ways (Queue,Stack,SLL & DLL)

Submission Date : (29th January – 7Pm) .
If you submit late or not submit at all ,its your loss , I generally review codes , who submitted first , and 50% of last day submissions just stay idle on my laptop .

Serious Note :
Don't just waste all week Just like that and code only on Friday heavily , for 2-3 hours and Msg me ,Bro I tried a lot ,its not working . It doesn't work because , you didn't do it in the right way . You would have known the right way ,if you strictly followed what I say . (Not that I am right always , But I do know where students get stuck a lot , and what excuses we usually tell ,So try a question daily and Utilize the group too if you have a doubt)

Read Below Links fully :

Basic :
http://www.tutorialspoint.com/cprogramming/c_structures.htm

Why typedef ?
http://stackoverflow.com/questions/252780/why-should-we-typedef-a-struct-so-often-in-c

Dynamic Memory Allocation :

http://www.programiz.com/c-programming/c-dynamic-memory-allocation

http://www.studytonight.com/c/dynamic-memory-allocation-in-c.php

http://c.learncodethehardway.org/book/ex16.html [MUST READ]

Nested Struture :

http://fresh2refresh.com/c-programming/c-nested-structure/

Optional :
Pointers :

http://c.learncodethehardway.org/book/ex15.html

Assignment :

Q1 : Create a student Structure with (Name , R_id ,and percentage)fields and take input and output it .

Q2: Take multiple students inputs and output those .First input will be a integer which denotes how many students are going to be entered next . (Use Array of Structures)

Q3 : Pass the Above created Array of structures to a function and print it .
void print_students(??? , int n); // What will ??? be ?

Q4 :Create a Father structure with 2 fields , (char fname[20] and int age) , and Link that father structure in student structure , Use above mentioned nested structure concept . (Optional Link a marks structure too ,which has an int array of size 6 ,which stores 6 subjects marks)

Q5 : Copy A structure address into a struct pointer , and take input using that pointer ,and output it . (Use -> operator)

Q6 : Dynamically allocate a structure using malloc ,and store its address into a temp pointer , and Take input into it ,and output it .

Q7 :

```
struct extra_info
{
    char hobby[20];
    char idol[20];
    float height;
}
struct student
{
    /*
    name,rid,percentage etc
    */
    struct extra_info * extra;
}
```

Dynamically Create a student structure , Take input into name,rid,percentage etc fields . Dynamically create a extra_info structure , Take inputs (hobby,idol,height) and link that extra_info address to extra field in student structure you created before .

Write a function which takes a struct student * , and print all data (Both students and extra_info) in that function .

P.S : We will keep on doing the same questions , until I receive submissions from at least 6 of you . (Present Student count , 2A – 1 ,2B – 5 , 2C -1 , 2D -2)