Embedded Systems Track

C Language

Struct And Union

IEEE ZAGAZIG Student Branch

IEEE RAS ROBOTICS & AUTOMATION SOCIETY Zagazig student chapter

Assignment 1

- **Structs :**
  - Create a struct named student_info which stores the roll number, name, age, address and marks of 15 students then write a program that prints all the info related to each of the 15 student.
  - For the previous problem, write a function that accepts the student_info as an input argument and prints the info of the 15 student and returns number of students with marks less than 12 if the full mark is of 20.

Assignment 2

- **Structs:**
  - Write a program to compare two dates entered by user as strings. Make a structure named *Date* to store the elements day, month and year to store the dates. If the dates are equal, display "Dates are equal" otherwise display "Dates are not equal".
  - Create a struct named *info* that stores name and age of a person then create an object and a pointer of type *info* then make the pointer pointing to the object after that print the name and age stored in the object BUT using the pointer.

Assignment 3

- **Structs :**
  - Create a struct named *test* that stores the following in the same order:
    - Int id
    - String name
    - Char class_id

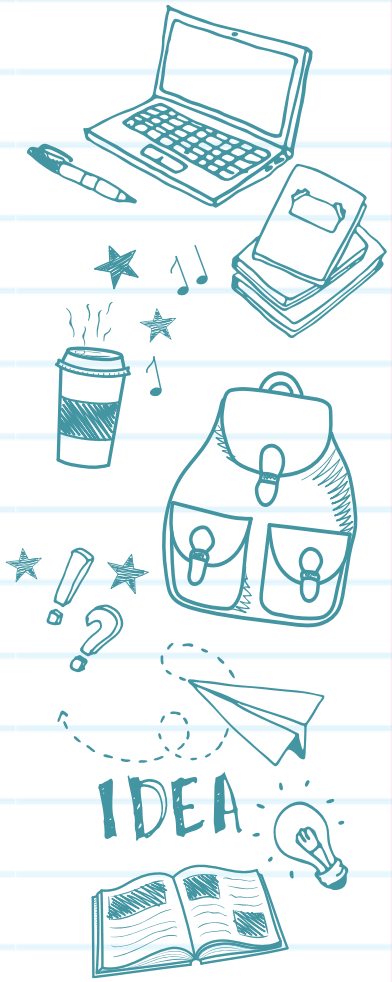
    Now print the size of the struct in this case the change the order of definition of the string to be the first then print the size again.

    Is there any deference? Explain your answer.

Assignment 4

- **Union:**
  - Create a union named *database* that stores the following structures :
    - *shops* of { name, location }
    - *product_info* of { id , price ,quantity }
    - *category* of { id ,products_num }

    Then create an object of this union and print the size of the union and each struct inside it.
  - For the previous problem make the union a struct instead then print the size of the parent struct and compare with the size of the previous union...Explain why the two sizes are different



Notes

- ***Deadline is due to Saturday -March at 11:59 pm.***