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Assignment - XII

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1. Assignment XII

- a. Make a union of one int, 2 char and one int. Make memory map and analyze.
- b. Make union and structure for saving and printing time. The information should be min, hour, sec and day. We should be able to update all the information together.
- c. Make a program to save min into 6 bits, hour into 5 bits, sec into 6 bits, day into 3 bits. Initialize and print the data using union and structure data type.
- d. Write a program to read 20 bytes from keyboard one by one and save them into some data type such that first 4 bytes are voltage 1, next 4 bytes are voltage 2, next 4 bytes are current 1, next 4 bytes are current 2 and remaining 4 bytes are min, hour, sec and day. Initialize the data type and print.

2. Theory question need to clear

- a. What is typedef? Where to use it?
- b. What is memory leakage in structure? How to avoid it?
- c. How many bytes will this structure consume: `struct student {char name[5];};`
- d. How many bytes will this structure consume: `struct student {char name[5]; int age; char gender};`
- e. What is the difference between structure and union?
- f. What is the difference between array and structure?
- g. How many data types are there?
- h.