

Programme	:	B.Tech	Semester	:	Fall 20-21
Course	:	Data structures and Algorithms (Embedded Lab)	Code	:	CSE2003
Faculty	:	Dr.B. Saleena / Prof.V.M.Nisha	Slot	:	L43+L44+L55

## Exercise -2

## **Structures, Functions & Stacks**

- Upload a single WORD/ PDF document in the Moodle with all the programs, screenshots of input, and output for each program.
- The Upload File must be named in this convention only Regno\_Name (Example, 19BCE1001\_Rahul) Strictly to be followed.
- 1. Chennai Super Kings cricket team had a pool of players. The details of each player such as player id, name of the player, average runs, and average wickets are stored in a record. Write a 'C' program to arrange the players and their corresponding details in the decreasing order of their average runs scored. (Use Structures and Functions for reading input, displaying the output and sorting the records).
- 2. Consider a retailer shop, which has rack a with the capacity to place 10 sacks of rice. The storekeeper can place the sack only at the top as well as take the sack only from the top. The storekeeper is not permitted to take the sack from the middle of the rack. Further, the reorder level is 4. If the rack reaches the reorder level then the system should raise an exception to reorder the rice of sacks. Implement the above scenario using an appropriate data structure.
- 3. Using the concept of stack check whether the parenthesis in a given expression is balanced or not. For example, in the expression ((a+b)-(c)) the number of right parentheses (3) is equal to the left parenthesis (3). Then the expression is said to be balanced. If not, the expression is said to be unbalanced. Implement the same using C Programming.