

Experiment No. 8

Aim: Apply the concepts of structures/union to solve a given problem.

Common :

1) A men's sports club keeps elaborate computerized records of all its members. The records contain typical information such as age, address, etc. of each person. But there is also information about whether a member is an active playing members, about whether he is married, and so on; if he is married the record contains information about his wife's name, the no. of children and their names. Write a program which demonstrates how such a system might be implemented. Show how the names of the wives of all active playing members might be printed.

2) An airline reservation system maintains records for possible flights consisting of

STARTING POINT 3 character code

DESTINATION 3 character code

STARTING TIME integer on scale 0001 – 2400

ARRIVAL TIME integer on scale 0001 – 2400

SEATS positive integer in suitable range.

Your program is to read 20 such records followed by queries of the form STARTING POINT– DESTINATION, one to a line. For each query find whether there is a possible flight with a seat available; if so reduce the number of seats by one and print out the flight details (or an apology).

Batch 1: A league table consists of a set of N records each representing the performance of a team. A record contains team name, no. of games played, no. of games won, no. of games drawn, no. of games lost, no. of goals scored and no. of points awarded (2 for a win and 1 for a draw). Write a program which inputs a positive integer N, N records of the form above, a positive integer M, the results of M games in the form, team1 goals scored team2 goals scored. Based on the results of these M games, the program should update the records and display the updated records.

Batch 2: A record in an organization's payroll consists of one line for each employee consisting of: NAME (20 characters), GENDER (1 character M or F), SALARY (integer), DATE OF BIRTH (3 integers YEAR MONTH DAY).

Write a program which will input 10 such records. Your program must then take in 5 amendments in the record set which will be in the same form as the record structure itself. The amendments can contain new employees to be added (name different from existing ones), employees left (salary given as 0) and update of salary (more or less). Your program must then incorporate these amendments and also remove those employees who have reached retirement age (Age 60).

Batch 3: A structure "Cricket" consisting of following:

- i) Player name
- ii) name of the country number of matches played
- iii) number of hundreds scored

Make a programme to read records n players and to prepare list according to:

- i) players name ii) countries name iii) number of matches played iv) number of hundreds Scored

Batch 4: Write a program to store the name, matches played and goals scored by 'n' hockey players using structure. generate a list with goals scored in descending order i.e display the output in table form in order of maximum goals scored to minimum goals scored.