

Cricket Tournament:

There were N (N is even) teams participated in a cricket tournament. All teams were divided into two groups having equal number of teams. Each team in a group played in Round Robin fashion (each team played with other teams in the same group). Winning team will get 2 points and no result/tie gives 1 point to each team. Two top teams from each group lead to semi-finals, which always be the case to be assumed. Finals will be between the winners of the two semi-finals.

Define three structures named as *player*, *team* and *match_played*.

- A. *player* attributes- player_id, match_id, previous_total_score, previous_avg, previous_total_wickets, previous_wicket_avg, total_runs_in_last_five_matches, total_wickets_in_last_five_matches, century, present_match_score, present_match_wicket, player_role, out/not out. The attribute player_role identify the player as batsman, bowler or all-rounder.
- B. *team* (set of players) - Each team has 15 players.
- C. *match_played* attributed - match_id, teams_played, highest_run, man_of_the_match, wicket_taken_by_pacer, match_result (winning team/no result/tie) .

After all the matches played in the tournament, find out-

- i. The possible combination of playing 11 if to form a team followings are to be maintained:
 - Minimum number of batsman= 5
 - Minimum number of bowler= 4
 - Minimum two best batsmen (on the basis of maximum runs and highest avg)
[hint: sort the players based on the key < previous_total_score , previous_avg >]
 - Minimum two best bowlers (on the basis of maximum wickets and highest avg). If there are multiple such combinations, list them all.
- ii. Highest total individual run getter before knock out matches. If there are multiple such players, sort them based on the runs scored. If there are multiple players scoring same number of runs, then sort on the basis of their names.
- iii. The player who was declared as man_of_the_match for maximum number of times. If there are multiple such players, sort the output based on their names.
- iv. Check whether results of ii) and iii) are same or not.
- v. Calculate highest average by an individual
- vi. Difference in total wickets taken between all pacers and spinners of the teams
- vii. Find out the players who are declared as man_of _match at-least k times (k is input) and also having maximum number of centuries among such players. If there are multiple such players, sort the output based on their names.