**IPL LEADERBOARD**

Objective: The data of IPL matches needs to be stored and a leader board needs to be prepared.

Concepts Involved: String and String Handling functions, Structures, Functions and Arrays.

There are different teams which play IPL matches. The following data related to an IPL match needs to be stored: a) Team1 Name b) Team2 Name c) Location d) Winner.

The Winner can be either Team1 or Team2 and in case of draw it is “DRAW”. In case if the match is cancelled, the Winner is “CANCEL”.

The Winner will have any of the 4 values:

1🡪 Team 1 won the match

2🡪 Team 2 won the match

3🡪 DRAW between the teams

4 🡪 CANCEL

This will be followed by 3 types of queries.

Type 1 Query:

Eg: 1 ChennaiSK 🡪 Output the list of teams with which ChennaiSK played matches in lexicographical order.

Type 2 Query:

Eg: 2 BRC🡪 Output the list of teams with which BCR team have not played matches yet in lexicographical order.

Type 3 Query:

Eg: 3 🡪 Output the leader board. Consider 2 points if a team wins the match. If it is a DRAW then both teams will get 1 point each. In case of CANCEL then no points to be considered. In case if 2 teams get same number of points, output as per lexicographical order.

Input Format: The first line of input contains an integer n that represents number of matches organized. The next n lines contain data of each match representing Team1, Team2, Location and Winner, each separated by a space. The next line contains q, which represents the number of queries. The next q lines will contain queries of type 1, 2 or 3. Each of queries 1 and 2 will be followed by name of Team.

Output Format: The output will be only for queries. For Type 1 queries, list the names of teams who played with the given team, each separated by space and in lexicographical order. Similarly, for type2. For type 3 query, print the list of all teams followed by – and the score. In case of same points to multiple teams, arrange as per lexicographical order of teams.

Sample Input:

6

RCB HYD Mohali 1

HYD KXP UAE 2

KXP MI Vizag 3

MI RR Dubai 4

RR KKR Hyderabad 2

KKR RCB Chennai 2

3

1 RCB

2 RR

3

Sample Output

HYD KKR

HYD KXP MI RCB

RCB – 4

KXP –3

KKR – 2

HYD –1

MI – 1

RR –0

Explanation: The first line n=6, means 6 matches were played. The next 6 lines of input are the match details.

A match between RCB and HYD at Mohali in which RCB won. So RCB has 2 points.

A match between HYD and KXP at UAE in which KXP won. So KXP has 2 points.

A match between KXP and MI at Vizag which was DRAW, So 1 point to both KXP and MI. So KXP has 3 points and MI has 1 point.

A match between MI and RR at Dubai which was Cancelled. So, no points to both teams.

A match between RR and KKR at Hyderabad in which KKR won. So KKR has 5 points in total.

A match between KKR and RCB at Chennai in which RCB won. So RCB has 4 points in total.

Now we have 3 queries.

1 RCB 🡪 RCB played matches with HYD and KKR teams. So, display in lexicographical order in the ouput.

2 RR 🡪 RR Team yet to play with HYD KXP MI RCB teams, so display in lexicographical order. (A match between RR and MI is cancelled, so RR needs to play with MI.)

3 🡪 Display Leader board, with each team name followed by – and number of points. This has x number of lines in the output where x means no. of distinct teams in the league.