The Cricket Data Model and Queries

Cricket is the self-explanatory word for this use case.
The International Cricket Council (ICC) is currently planning for next world cup which is supposed to be held in year 2019, for which they want to introduce a new online system which will be able to deliver high velocity data at lightning speed to the end user located in any part of the world. The need of this system is to remove administrative paperwork and make available greater amount of data to users, players, teams, coaches, media and every supporters or fans of cricket. This live data which will be having history of each events from match's played to players involved and including all the minutes data for analysis which can help several teams for taking appropriate decisions for coming matches and also for users and cooperate sectors for different purpose. This system cloud help people to connect from anywhere at any point of time with their sports and could take this sports to next level with the advancement of technology. It should also support people in analyzing the match instantaneously by comparing current match features (batting results, balling speed, etc) with those of previous matches.

Assignment

Goal

The aim of this use case is to design the data model for handling the information necessary for building such a cricket information system. (A full-fledged application with the middle tier, front-end is *not* required.) Furthermore, to verify that the data model is designed exhaustively, a set of queries provided in this use case should be implemented using the query language supported by the NoSQL database system.

Task in detail

(1) Develop 5 scenarios / user stories for your use case and your database that make proper use of the strength of your particular database.
(2) Develop a data model that accommodates the information required for the sample queries described below as well as for your three scenarios developed in task 1.
(3) Implement the data model in your assigned data base.
(4) Formulate the queries in the query language supported by your assigned NoSQL DB, and record the query results. (Given queries below as well as appropriate queries for your use case.)
(5) Your system should be able to answer at least (!) the following queries:

Queries

a) How many world cups where held? The answer should also provide the information of where they were played, when they were played and who won the cup.
b) Who won the recent world cup? Display all the matches of the winning team including their results.
c) Which teams were out of quarterfinals in the past 5 world cups? List the teams including against whom they lost and when the match took take place.
d) List the teams whose captain has changed from cups to cups and the details of the changes.
e) Which teams have won two consecutive world cups? The answer should include when the world cups took place, against whom they won the finals, the scores of the final, the names of the players, the coach and the captain.
f) Who holds the highest record of maximum runs, maximum wickets, man of the match till date?
g) List top 5 players information who have played maximum matches in ICC world Cup.
h) List top 5 bowlers who are have scored a hat-trick. Give details of the match.
i) Name all coaches who have changed the teams in series of world cups.
j) Which teams have scored maximum 6 and 4 in a match (not sum of all match but single match where maximum hits have been recorded). Give the details of the match where it was scored.
k) Show the average run rate of top 5 batsman and to which team they belong.
l) Which 5 team has the highest run chase display by grouping it in response to world cup year.
m) List the top 10 players who are blowers but could score the highest runs in world cup (group by world cup year)
n) What was the schedule of semi-finals of and scores of the matches and name of the referee (do it for recent 2 world cups)
o) How many times has a player received the MotM(Man of the Match) award?