Sports Management System (Version - 2)

Problem Statement:

The Olympic Games Database System is designed to support the management of key entities related to the Olympic Games, including countries, sports, athletes, teams, events, and medals. This system aims to streamline the management and tracking of Olympic Games data, allowing the Sports federations to efficiently manage their records while offering insights into the performance of countries and athletes over time.

The primary goal of the system is to capture and store comprehensive details about each Olympic Games, including the host country and city, year, opening and closing dates, and participating countries. Additionally, it tracks the sports and disciplines included in the Olympics, as well as the specific events in each discipline, such as individual and team competitions, gender categories, and participant limits.

Athletes and teams from various countries compete in these events, and the system maintains detailed records of their personal information, performance, and achievements. Each athlete can compete in multiple events, and each event can have one or more athletes. Medals are awarded to athletes based on their performance, and the system keeps track of their medal type (Gold, Silver, Bronze), ranking, and performance data (such as time or score).

To ensure a seamless experience for both organizers and viewers, the system includes a comprehensive Venues table, where events are linked to specific venues, along with details about the venue's location, capacity, and event date.

Deliverables:

Q1) Design an E-R diagram for the *OlympiaTrack* database, illustrating relationships among countries, athletes, events, venues, and results. Include key constraints to represent real-world scenarios effectively.

Q2) Convert the E-R diagram into a relational schema with primary keys, foreign keys, and necessary constraints. Define the schema for all entities and relationships.