Formula One Team Information System

1. A Formula One Team database system holds important and easy-to-reach information about the Finance Team, Sponsorships, Departments. Also, especially Simulation Department, Aero Department and Power Unit Departments. In addition, Engineers and Staff, Chief Designer, Race Manager and Race Management community. Most importantly includes Pilots, Test Pilot, Pit Crew and lastly, details about the vehicles.

2. A Formula One team can work with multiple finance teams, but finance teams work with only one Formula One team. Finance teams provide financial support to a Formula One team. They store information of third-party companies, organize financial projects, handle special and unique billing, and sign various contracts.

3. Sponsorships work with the finance teams of Formula One teams. Sponsor logos are found on the cars. Each sponsor has its own unique number. They execute advertising projects and sign detailed contracts. They also make many investments. Finance teams can work with many sponsorships, and a sponsorship can work with multiple finance teams.

4. A Formula One team works with many engineers and employees, but engineers and employees can only work with one Formula One team. Each employee has a unique number. Their CVs are saved in the team's files. And everyone has an area of expertise. Their full names and unique social security numbers are recorded in the system.

5. Departments work with many engineers. An engineer can be an employee of multiple departments. Each department has a name, budget, and projects. Additionally, each department has its own assigned codes.

6. One of the departments could be the Simulation Department. This department also has its own unique code. A calendar is set up to organize its work, and the information and data of these activities are recorded. Additionally, it has a designated budget.

7. One of the departments could be the Aero Department. It has its own unique code and budgets. It has its own sub-teams and their respective tasks. Additionally, the department's projects and drawings are always recorded in the system.

8. One department could be the Engine Department. It has unique codes and budgets. It has computer maps, engine models, and production lines. Additionally, the inventory of this department is specially monitored.

9. One of the engineers could be the Chief Designer. The Chief Designer has a unique employee ID. Their CV and salary are recorded in the system. Their projects and achievements are tracked.

10. Another engineer could be the Race Manager. They have a unique employee ID. Their goals are noted, and their achievements are tracked. Their file includes their CV and salary information.

11. Race management works with one Race Manager. A new Race Management Board convenes for each race, and the assembled Board has a unique code. They write race and championship scenarios, organize management areas, set pit stop and race strategies, and have access to the team's microphone system.

12. A Formula One team races with 2 or 3 pilots. Each pilot has a unique number, abbreviation, and ID. Their trophies, physical, and performance statistics are available. Their achievements are tracked individually. Each pilot drives for a single team.

13. Each pilot has their own garage, and each garage is controlled by the race management. The garages have unique numbers. Equipment, data, and pit crew are listed within the garages.

14. One of the pilots could be a test pilot. They have a unique race number and ID. Their work schedule is recorded in the system.

15. Each team has multiple cars, and one driver can have multiple cars. However, one car is associated with one team and one driver. Each car has its own unique engine code, chassis code, and pilot information. Additionally, the cars have brake balance maps, engine maps, and differential maps set by the teams.

QUERIES

1. Single Entity Type Query (Finance Team):
-Retrieve all the finance teams along with their respective budgets and projects.

2. Single Entity Type Query (Pilots):
-Get the details of all the pilots including their names, numbers, and achievements.

3. Two Entity Types Query (Sponsorship and Finance Team):
-List all sponsorships along with the corresponding finance team details, including budget allocations.

4. Two Entity Types Query (Pilots and Cars):
-Retrieve the pilot's name and their associated car details, including engine and chassis codes.

5. Three Entity Types Query (Cars, Pilots and Pits/Garage):
-Get a list of the cars, the pilots who drove them, and their respective pit crews.

6. Three Entity Types Query (Race Management, Pilots, and Cars):
-Find out which pilot the pit crew working for committee number 938 works for.