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**PHASE 1: DRAFT OF BUSINESS SCENARIO**

**Business Scenario: FIA Formula One database application**

This scenario is based on FIA Formula One (F1) World Championship of auto racing and aims to develop an application to manage data for a single season.

A formula one grand prix is an event that takes place over 3 days (usually Friday to Sunday), with a series of practice and qualifying sessions prior to the race on Sunday.

Two practice sessions are held on Friday and one on a Saturday. Each session is approximately one hour in which each driver is allowed to go out and assess the car. The lap time, driver name, number of laps completed by each driver for each practice session should be stored. A driver may go out on track in all practice sessions or sometimes only one.

Qualifying session takes place on a Saturday to determine the order of the cars for the start of the race with the fastest qualifier starting from the front of the grid and the slowest at the back. Qualifying session is split into 3 sessions Q1, Q2, Q3. In each session 5 drivers are eliminated based on their lap time. The lap time of each driver during each qualifying session should be stored as well as their name, and laps completed.

The race itself is held on a Sunday. Each driver is lined up according to their position on the grid based on their lap time from qualifying. Vital information including the race name, circuit name, date, time, number of laps and circuit length should be stored. A driver can participate in in many races throughout the season and may miss some due to any issues involving the car or even the driver himself.

The time each driver takes to complete the race is to be recorded.

There are 20 drivers and 10 constructors. Each constructor has 2 drivers. Constructor nationality, name and points scored by the constructor should be stored. The driver’s name, surname, number, nationality, points scored, and constructor should be stored. Each driver is contracted with only one constructor for a certain number of seasons.

Each race takes place at a different country and different circuits every other week. The circuit name, country in which the circuit is located, and circuit length should be stored.

At every race, each driver is required to use two types of dry compound tyres during a dry race and so must make a mandatory pitstop. The lap pitted, time and duration of pitstop, tyre change and driver pitting should be stored for each pitstop. The status of a driver tells us whether the driver did not finish (DNF) or is in the race and completed.

The application is required to generate 3 reports in the form of screens:

Screen 1: **The race report**

* Display the position of drivers according to race finish, their name, constructor, and time taken to complete the race and points scored by each driver in the race.

Screen 2: **The Driver Championship Standings**

* Display the position of each driver, name and total points scored for each race from the start of the season until current.

Screen 3: **The Constructor Championship Standings**

* Display the position of each constructor, constructor name and total points cored for each race from the start of season until current.