

## Formula 1 - Context for Question Answering System

Formula 1 (F1) is the highest class of international racing for open-wheel single-seater formula racing cars. Governed by the Fédération Internationale de l'Automobile (FIA), F1 has been the pinnacle of motorsport since its inception in 1950. Each season consists of a series of races, known as Grands Prix, held on circuits worldwide, including both street circuits and dedicated race tracks.

F1 cars are highly advanced machines that use hybrid power units combining internal combustion engines with energy recovery systems. These cars can exceed speeds of 350 km/h (217 mph) and generate extreme g-forces, requiring exceptional physical fitness from the drivers. The technical regulations governing car design are stringent, focusing on safety, innovation, and sustainability.

Drivers and teams compete for two separate championships: the Drivers' Championship and the Constructors' Championship. Points are awarded based on race finishes, and the highest cumulative scores determine the season's champions. Legendary drivers include Juan Manuel Fangio, Niki Lauda, Alain Prost, Ayrton Senna, Michael Schumacher, and Lewis Hamilton. Dominant teams over the years have included Scuderia Ferrari, McLaren, Mercedes-AMG Petronas, and Red Bull Racing.

Strategy plays a critical role in F1, including tire selection and management, pit stop timing, fuel strategy (before refueling was banned), and adapting to weather and track conditions. Qualifying sessions determine grid positions, and penalties can affect starting order.

F1 has been at the forefront of automotive innovation, introducing technologies such as carbon fiber construction, active suspension, and telemetry systems. In recent years, the sport has adopted regulations promoting environmental responsibility, including hybrid engines, biofuels, and carbon footprint reduction goals.

With a global fanbase and races broadcast to millions, Formula 1 is not only a sport but also a significant business enterprise and a platform for engineering excellence and cutting-edge technology.