### 1. Optimize Circuit lookup in sp GetTopDriversByCircuit

CREATE NONCLUSTERED INDEX IX\_CIRCUIT\_Name ON CIRCUIT (Name) INCLUDE (Circuit ID);

### 2. Optimize Driver lookup and stats in sp\_GetDriverFullStats

CREATE NONCLUSTERED INDEX IX\_DRIVER\_Name\_Team ON DRIVER (Name) INCLUDE (Driver ID, Nationality, Age, Team ID);

## 3. Optimize Team name lookup in sp\_GetTeamAndDriversSeasonPerformance

CREATE NONCLUSTERED INDEX IX\_TEAM\_Name ON TEAM (Team\_Name) INCLUDE (Team\_ID);

#### 4. Optimize Season year lookup

CREATE NONCLUSTERED INDEX IX\_SEASON\_Year ON SEASON ([Year]) INCLUDE (Season ID);

### 5. Race table used for joins with Circuit and Season

CREATE NONCLUSTERED INDEX IX\_RACE\_Circuit\_Season ON RACE (Circuit\_ID, Season\_ID) INCLUDE (Race\_ID);

#### 6. Race Results used in all stored procedures

CREATE NONCLUSTERED INDEX IX\_RACE\_RESULTS\_Optimized ON RACE\_RESULTS (Race\_ID, Driver\_ID) INCLUDE (Final Position, Points Scored, Fastest Lap Time, DNF Status);

# 7. Penalties and Failures joined via Entry\_ID

CREATE NONCLUSTERED INDEX IX\_PENALTIES\_EntryType ON PENALTIES (Entry\_ID, Penalty\_Type);

CREATE NONCLUSTERED INDEX IX\_FAILURES\_Entry ON FAILURES (Entry\_ID, Failure\_Type);

# 8. Race\_Entry for joining penalties and failures

CREATE NONCLUSTERED INDEX IX\_RACE\_ENTRY\_Driver ON RACE\_ENTRY (Driver\_ID) INCLUDE (Entry\_ID);