University of Johannesburg
Academy of Computer Science & Software Engineering
IFM2A10: Informatics 2A – Database Design
Practical Assignment 3 (Due: 1 March 2016 @ 12h30pm)

Assignment

The FIA (Federation Internationale de l'Automobile) would like you to assist in keeping track of the racing tracks that are used for the FIA's Formula One World Championship by building a database that will allow them to get answers to some of their most common operational questions. The FIA has provided you with a list of all the racing tracks used in the Formula One World Championship as well as each race track's manager(s). Each race track can be assigned to one or more track managers, and each track manager can only be assigned to a single race track.

Formula One World Championship Racing Tracks:

Country	Name	Nr. of Races	Nr. Of Completed Races
Germany			
	Nurburgring	3	0
	Hockenheim	2	0
	Nuremberg Street Circuit	4	2
Brazil			
	Autodromo Internacional Ayrton Senna	6	3
	Velopark	2	1
France			
	Circuit de la Sarthe - Le Mans	1	0
	Circuit de Pau	1	1
	Circuit Paul Ricard	1	1

Racing Track Managers:

Manager Name	Circuit Assigned
Hamilton	Circuit de Pau
Vettel	Nurburgring
Hakinnen	Circuit Paul Ricard
Murray	Nuremberg Street Circuit
Webber	Circuit de la Sarthe - Le Mans
Montoya	Circuit Paul Ricard
Schumacher	Hockenheim
Senna	Velopark

Complete the following using **SQL queries**:

A. Create **multiple** tables (minimum of 2). Name the tables; and name and type all fields appropriately.

1. Save all SQL Create queries

B. Add ALL records of **track managers** into the table. (Name these queries "**B1**", "**B2**", "**B3**", etc.)

C. How many **races** have been completed in the championship?

D. How many **races** are in each country?

E. Show the name of each track manager, their race track and the country.

F. How many **track managers** are there in each **country**?

G. In percentage terms, at what stage of completion is the championship? (e.g. 75% complete)

H. What is the **average number** of races per **country**? (Make use of an Alias)

Instructions

- This solution must be implemented in Microsoft Access or equivalent.
- Name all queries according to their question number. For example:
  - Question A as "**A**"
  - Question B1 as "**B1**"
  - etc.

Mark Allocation

Query A	10
Query B (B1 – B8)	8
Query C	5
Query D	5
Query E	10
Query F	6
Query G	10
Query H	6
Total	**60**
Penalties	
• Late submission [0%]	