Information Technology

SQL Test

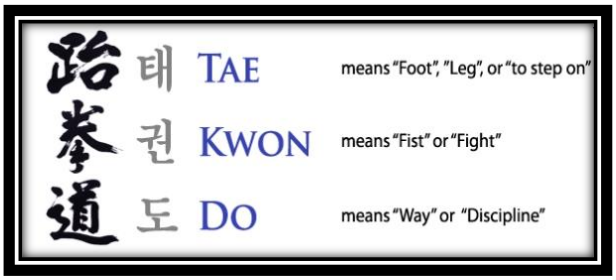
Time: 60 minutes ***Marks: 45***

Instructions:

The database file and the word template for this assessment can be found in your folder.

- Answer all questions.
- Rename the word document, so that your name and surname is added at the end of the file name.
- Save your work regularly. No extra time will be given due to power outages or hardware/software failures.
- Save both files in your folder.
- Do each query in the Access database and save your queries as **QueryX** where **X** is the number of the question. E.g. **Question 5** will be **Query5**. Also copy and paste the query into the word document into the block provided. Do not worry if you cannot save the query, as long as you copy it into the word document.
- **Add your name in the header of the word document**
- **Show only the necessary fields as indicated by the question.**

Dimitri wants to start up his own Taekwondo School (dojang) when he leaves school. His parents have offered to provide the capital, but he needs to convince them that it is a feasible idea.



http://www.taekwondo-guide.com/#link_2141595

He has already spoken to his friends and teachers at school and many of them have indicated that they are very willing to join. He has set up a database that contains three tables.

tblLocations contains information about the different venues that he has in mind.

tblVenues

Field Name	Data Type	Description
locationId	AutoNumber	unique location id
location	Text	location of venue
space	Number	amount of space in square metres
rentalAmt	Currency	amount of rent to be paid per month

tblVenues

locationId	location	space	rentalAmt
1	Braamfontein	450	R 3,400.00
2	Edenvale	500	R 3,670.00
3	Bedfordview	480	R 4,500.00
4	Kempton Park	320	R 3,700.00
5	Bedfordview	560	R 5,700.00
6	Kempton Park	450	R 4,320.00
7	Edenvale	600	R 5,000.00
8	Dowerglen	350	R 3,200.00
9	Alberton	215	R 2,900.00

tblBelts contains information about the belts based on the grading of the student.

tblBelt

Field Name	Data Type	Description
beltID	AutoNumber	primary key for type of belt
colour	Text	the colour of the belt
description	Text	the description of the belt

tblBelt

beltID	colour	description
1	white	Symbolizes innocence
2	yellow	Represents the earth in which the roots of your taekwondo form ready for a beautiful plant to grow
3	green	Represents the plant (your taekwondo) starting to grow from the earth
4	blue	Represents the sky or heaven. Your taekwondo skills are growing strong
5	red	Danger
6	black	Represents maturity, a good level of skill in taekwondo and rejection of darkness and fear

tblStudents contains information about the students that have expressed their interest in joining his dojang.

tblStudents

Field Name	Data Type	Description
studId	AutoNumber	the unique student id
studName	Text	the name of the student
studAge	Number	the student's age
size	Number	the size of the belt in inches
locationId	Number	the location of the dojang
beltId	Number	the belt that the student currently holds

tblStudents

studId	studName	studAge	size	locationId	beltId
1	Katrina	21	91	2	1
2	Katiso	23	102	6	
3	Andreas	12	95	2	
4	Sotiri	16	102	7	4
5	Nikola	13	111	1	5
6	Dominique	15	95	1	6
7	Eleanora	33	119	3	3
8	Flavia	23	111	1	6
9	Giorgia	14	102	6	
10	Vageli	60	108	5	
11	Nicholas	45	95	4	4
12	Bo Chao	22	119	3	6
13	Michael	18	102	2	5
14	Alan	15	102	1	
15	Raphaelo	17	127	6	2
16	Mary	15	102	6	
17	Luke	12	102	1	5
18	Christo	23	95	4	6
19	Stella	17	93	3	
20	Alexander	18	95	2	3
21	Hong Fei	23	101	6	
22	Annie	17	93	1	5
23	Kieran	18	111	4	
24	Chloe-Marie	23	91	6	3
25	Christopher	24	95	3	

Record: 28 of 40 No Filter Search

NOTE: this is just a sample of the data in **tblStudents.**

Answer the following questions in Access and copy the SQL statements into the word document called "SQL test 2014 answer sheet" that has been copied into your profile:

1. Display all locations without any duplicate locations being displayed. (3)
2. Display all locations in alphabetical order and in descending order of rental amount. (3)
3. Display the names of all those students who have either a blue, red or black belt. (5)
4. Display the names, ages and the location of the students for all students who haven't yet been graded i.e. those who don't have a belt. (4)
5. It will be much easier for Dimitri to order the belts for the students and build this into the amount that he will charge them. The sizes of the belts have been given in inches. However, the local shops only have their stock reflected in cm. Display the name of the student, the colour of the belt and the size of the belt that will be needed in cm where 1 inch = 2.45 cm under a suitable heading. (5)
6. For future tournaments, it would be quite useful to have a record of the year that the student was born in. Display the name of the student together with the year that the student was born in. This can be calculated by subtracting the person's age from the current year. (2)
7. Use a formula to determine and display the minimum rental amount in a field called MinRentalAmt. (2)
8. It is not worth his while to consider leasing a venue with fewer than 10 students. Display the location and the number of students for each of the venues, but only for those locations where the number of students is greater than 9. (6)
9. Display the name and the age of all students where the age is greater than the average age of all the students. (4)
10. Display the name of the student and a unique code for each student in a column called Code which is generated as follows:
    Extract the 2 middle characters of the student's name starting from the third character; join it to the length of the student's name and the first 2 characters of the location.
    For example: **Nikola will have the code ko6Br**. (8)

11. Raphaelo has been working very hard and the stress of grade 12 has resulted in him losing a great deal of weight. His belt size has dropped from 127 to 102. Create a SQL query to change this information. (3)