MODULE NAME:	MODULE CODE:
DATABASE INTERMEDIATE	DATA6212
DATABASE INTERMEDIATE	DATA6212d
DATABASE INTERMEDIATE	DATA6212p

ASSESSMENT TYPE: ASSIGNMENT 1 (PAPER ONLY)

TOTAL MARK ALLOCATION: 100 MARKS

TOTAL HOURS: 15 HOURS

By submitting this assignment, you acknowledge that you have read and understood all the rules as per the terms in the registration contract, in particular the assignment and assessment rules in The IIE Assessment Strategy and Policy (IIE009), the intellectual integrity and plagiarism rules in the Intellectual Integrity Policy (IIE023), as well as any rules and regulations published in the student portal.

INSTRUCTIONS:

1. ***No material may be copied from original sources, even if referenced correctly, unless it is a direct quote indicated with quotation marks. No more than 10% of the assignment may consist of direct quotes.***
2. ***Make a copy of your assignment before handing it in.***
3. *Assignments must be typed unless otherwise specified.*
4. *All work must be adequately and correctly referenced.*
5. *Begin each section on a new page.*
6. *Follow all instructions on the assignment cover sheet.*
7. *This is an individual assignment.*

ADDITIONAL INSTRUCTIONS:

1. *This assignment must be done in MS SQL Server 2012™.*
2. *Copy the scripts as well as the results into a MS-Word™ Document.*

Referencing Rubric

Providing evidence based on valid and referenced academic sources is a fundamental educational principle and the cornerstone of high-quality academic work. Hence, The IIE considers it essential to develop the referencing skills of our students in our commitment to achieve high academic standards. Part of achieving these high standards is referencing in a way that is consistent, technically correct and congruent. This is not plagiarism, which is handled differently.

Poor quality formatting in your referencing will result in a penalty **of a maximum of ten percent being deducted from the percentage awarded**, according to the following guidelines. Please note, however, that **evidence of plagiarism in the form of copied or uncited work (not referenced), absent reference lists, or exceptionally poor referencing, may result in action being taken in accordance with The IIE's Intellectual Integrity Policy (0023)**.

Markers are required to provide feedback to students by indicating **(circling/underlining) the information that best describes the student's work.**

Minor technical referencing errors: 5% deduction from the overall percentage – the student's work contains **five or more errors** listed in the minor errors column in the table below.

Major technical referencing errors: 10% deduction from the overall percentage – the student's work contains **five or more errors** listed in the major errors column in the table below**.**

If both minor and major errors are indicated, then 10% only (and not 5% or 15%) is deducted from the overall percentage. The examples provided below are not exhaustive but are provided to illustrate the error.

Required: **Technically correct referencing style**	**Minor errors in technical correctness of referencing style** **Deduct 5% from percentage awarded**	**Major errors in technical correctness of referencing style** **Deduct 10% from percentage awarded**
Consistency • The same referencing format has been used for all in-text references and in the bibliography/reference list.	Minor inconsistencies. • The referencing style is generally consistent, but there are one or two changes in the format of in-text referencing and/or in the bibliography. • For example, page numbers for direct quotes (in-text) have been provided for one source, but not in another instance. Two book chapters (bibliography) have been referenced in the bibliography in two different formats.	Major inconsistencies. • Poor and inconsistent referencing style used in-text and/or in the bibliography/ reference list. • Multiple formats for the same type of referencing have been used. • For example, the format for direct quotes (in-text) and/or book chapters (bibliography/ reference list) is different across multiple instances.
Technical correctness Referencing format is technically correct throughout the submission. Position of the reference: a reference is directly associated with every concept or idea. For example, quotation marks, page numbers, years, etc. are applied correctly, sources in the bibliography/reference list are correctly presented.	**Generally, technically correct with some minor errors.** • The correct referencing format has been consistently used, but there are one or two errors. • Concepts and ideas are typically referenced, but a reference is missing from one small section of the work. • Position of the references: references are only given at the beginning or end of every paragraph. • For example, the student has incorrectly presented direct quotes (in-text) and/or book chapters (bibliography/reference list).	**Technically incorrect.** • The referencing format is incorrect. • Concepts and ideas are typically referenced, but a reference is missing from small sections of the work. • Position of the references: references are only given at the beginning or end of large sections of work. • For example, incorrect author information is provided, no year of publication is provided, quotation marks and/or page numbers for direct quotes missing, page numbers are provided for paraphrased material, the incorrect punctuation is used (in-text); the bibliography/reference list is not in alphabetical order, the incorrect format for a book chapter/journal article is used, information is missing e.g. no place of publication had been provided (bibliography); repeated sources on the reference list.
Congruence between in-text referencing and bibliography/ reference list • All sources are accurately reflected and are all accurately included in the bibliography/ reference list.	**Generally, congruence between the in-text referencing and the bibliography/ reference list with one or two errors.** • There is largely a match between the sources presented in-text and the bibliography. • For example, a source appears in the text, but not in the bibliography/ reference list or vice versa.	**A lack of congruence between the in-text referencing and the bibliography.** • No relationship/several incongruencies between the in-text referencing and the bibliography/reference list. • For example, sources are included in-text, but not in the bibliography and vice versa, a link, rather than the actual reference is provided in the bibliography.
In summary: the recording of references is accurate and complete.	In summary, at least **80%** of the sources are correctly reflected and included in a reference list.	In summary, at least **60%** of the sources are incorrectly reflected and/or not included in reference list.

Overall Feedback about the consistency, technical correctness and congruence between in-text referencing and bibliography:

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This assignment relates to the following Learning Units:

- LU1: An Introduction to Textual Analysis.
- LU2: Tools of the Trade.
- LU3: JOINs.

Question 1 **(Marks: 20)**

You are required to create the following tables in a database named STUDENT_REGISTRATIONS.

Ensure that you create the database and table objects exactly as depicted below.

STUDENTS		
STUDENT_ID	VARCHAR(8) NOT NULL	PRIMARY KEY
STUDENT_NAME	VARCHAR(40) NOT NULL	
STUDENT_SURNAME	VARCHAR(40) NOT NULL	

MODULES		
MODULE_ID	VARCHAR(8) NOT NULL	PRIMARY KEY
MODULE_NAME	VARCHAR(40) NOT NULL	
MODULE_CREDIT	SMALLINT NOT NULL	

STUDENT_MODULES		
STUDENT_ID	VARCHAR(8) NOT NULL	PRIMARY KEY FOREIGN KEY REFERENCES STUDENTS(STUDENT_ID)
MODULE_ID	VARCHAR(8) NOT NULL	PRIMARY KEY FOREIGN KEY REFERENCES MODULES(MODULE_ID)

LECTURERS		
LECTURER_ID	VARCHAR(8) NOT NULL	PRIMARY KEY
LECTURER_NAME	VARCHAR(40) NOT NULL	
LECTURER_SURNAME	VARCHAR(40) NOT NULL	

LECTURER_MODULES		
MODULE_ID	VARCHAR(8) NOT NULL	PRIMARY KEY FOREIGN KEY REFERENCES MODULES(MODULE_ID)
LECTURER_ID	VARCHAR(8) NOT NULL	PRIMARY KEY FOREIGN KEY REFERENCES LECTURERS(LECTURER_ID)

Requirement	Mark	Examiner
New database and all tables created correctly.	20	

Question 2 **(Marks: 20)**

Insert the following data into your database tables.

STUDENTS		
STUDENT_ID	**STUDENT_NAME**	**STUDENT_SURNAME**
S123456	Neo	Petlele
S246810	Derek	Moore
S369121	Pedro	Ntaba
S654321	Thabo	Joe
S987654	Dominique	Woolridge

MODULES		
MODULE_ID	**MODULE_NAME**	**MODULE_CREDIT**
DATA6212	Database Intermediate	30
INPU221	Desktop Publishing	20
PROG6211	Programming 2A	15
PROG6212	Programming 2B	15
WEDE220	Web Development (Intermediate)	20

STUDENT_MODULES	
STUDENT_ID	**MODULE_ID**
S123456	PROG6211
S123456	PROG6212
S246810	DATA6212
S369121	DATA6212
S369121	INPU221
S369121	WEDE220
S987654	PROG6211
S987654	PROG6212
S987654	WEDE220

LECTURERS		
LECTURER_ID	**LECTURER_NAME**	**LECTURER_SURNAME**
L578963	Kwezi	Mbete
L876592	Julia	Robins
L916482	Trevor	January

LECTURER_MODULES	
MODULE_ID	**LECTURER_ID**
DATA6212	L578963
INPU221	L876592
PROG6211	L916482
PROG6212	L916482
WEDE220	L876592

Requirement	Mark	Examiner
Correct INSERT statements used and all data correctly inserted per table.	20	

Question 3 (Marks: 5)

Write an appropriate SQL query to update the STUDENT_SURNAME for the student with STUDENT_ID 'S987654' to 'Smith'.

Requirement	Mark	Examiner
Correct UPDATE statement.	1	
Correct SET statement.	2	
Correct WHERE clause.	2	
TOTAL	5	

Question 4 (Marks: 10)

Write an appropriate SQL query to display all the STUDENT_SURNAMES and STUDENT_NAMES, as well as the MODULE_NAMES that the student is registered for. Sort results according to student surname in ascending order.

Sample results:

STUDENT	MODULE
Moore, Derek	Database Intermediate
Ntaba, Pedro	Database Intermediate
Ntaba, Pedro	Desktop Publishing
Ntaba, Pedro	Web Development (Intermediate)
Petlele, Neo	Programming 2A
Petlele, Neo	Programming 2B
Smith, Dominique	Programming 2A
Smith, Dominique	Programming 2B
Smith, Dominique	Web Development (Intermediate)

Requirement	Mark	Examiner
Correct SELECT statement used.	2	
Correct FROM clause.	1	
Correct WHERE clause.	6	
Correct ORDER BY clause.	1	
TOTAL	10	

Question 5 **(Marks: 15)**

Write an appropriate SQL query to determine which student is registered for the most credits (total module credits registered for).

Sample results:

STUDENT	TOTAL CREDITS
Ntaba, Pedro	70

Requirement	Mark	Examiner
Correct SELECT statement used including aggregate function.	3	
Correct FROM clause.	1	
Correct INNER JOIN used.	6	
Correct GROUP BY clause.	2	
Correct ORDER BY clause.	3	
TOTAL	15	

Question 6 **(Marks: 5)**

Write an appropriate SQL query to determine if there are any students that are not registered for any modules.

Sample results:

STUDENT_ID	STUDENT
S654321	Joe, Thabo

Requirement	Mark	Examiner
Correct SELECT statement used.	1	
Correct JOIN used.	2	
Correct WHERE clause.	2	
TOTAL	5	

Question 7 **(Marks: 5)**

Write an appropriate SQL query to delete the following record from the STUDENTS table:

STUDENT_ID: S654321

STUDENT_SURNAME: Joe

STUDENT_NAME: Thabo

Requirement	Mark	Examiner
Correct DELETE statement used.	2	
Correct WHERE clause.	3	
TOTAL	5	

Question 8 **(Marks: 10)**

Write an appropriate SQL query to list the lecturers that teach more than one module.

Sample results:

LECTURER	NUMBER OF MODULES
January, Trevor	2
Robins, Julia	2

Requirement	Mark	Examiner
Correct SELECT statement and aggregate function used.	2	
Correct FROM statement.	2	
Correct WHERE clause.	2	
Correct GROUP BY clause.	2	
Correct HAVING clause.	2	
TOTAL	10	

Question 9 **(Marks: 10)**

Write an appropriate SQL query to determine which modules have the same number of credits.

HINT: You may need to read up more on SELF JOINS.

Sample results:

MODULE_NAME	MODULE_CREDITS
Programming 2A	15
Programming 2B	15
Desktop Publishing	20
Web Development (Intermediate)	20

Requirement	Mark	Examiner
Correct SELECT statement used.	2	
Correct FROM clause.	2	
Correct WHERE clause.	4	
Correct ORDER BY clause.	2	
TOTAL	10	

[TOTAL MARKS: 100]