MODULE NAME:	MODULE CODE:
ADVANCED DATABASES	ADDB7311

ASSESSMENT TYPE: ASSIGNMENT 1 (PAPER ONLY)

TOTAL MARK ALLOCATION: 100 MARKS

TOTAL HOURS: 10 HOURS

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. ***No assignment with a similarity index of more than 25%, even if the sources are referenced correctly, will be accepted.***
3. ***Make a copy of your assignment before handing it in.***
4. *Assignments must be typed unless otherwise specified.*
5. *All work must be adequately and correctly referenced.*
6. *Begin each section on a new page.*
7. *Follow all instructions on the assignment cover sheet.*
8. *This is an individual assignment – For group assignments, the group may not exceed 4 members and all will be awarded the same mark.*

TOPIC:
Learning Units: 1 - 7

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.

Poor quality formatting in your referencing will result in a penalty of a maximum of five (5) marks against the percentage mark 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)**.

Required	Subtract 1	Subtract 2	Subtract 3	Subtract 4	Subtract 5
• Consistent in-text referencing style • Quotation marks, page numbers, years, etc. applied correctly • Only one or two minor mistakes in style made • All sources are accurately reflected and included in a reference list	• Consistent in-text referencing style • Quotation marks, page numbers, years, etc. applied correctly • Fewer than five minor mistakes made • More than 90% of the sources are correctly reflected and included in a reference list	• Consistent in-text referencing style • Quotation marks, page numbers, years, etc. not always applied correctly • Not all paraphrased content referenced • At least 80% of the sources are correctly reflected and included in a reference list 1.	• Consistent in-text referencing style • Quotation marks used for direct quotes but page numbers missing • At least 70% of the sources are correctly reflected and included in a reference list	• In-text referencing used but inconsistent • Paraphrased material cited but not referenced accurately or consistently in text • Quotation marks and/or page numbers for direct quotes missing • At least 60% of the sources are correctly reflected and included in reference list	• Poor and inconsistent referencing style used • At least 50% of the sources are correctly reflected and included in reference list • Quotation marks and/or page numbers for direct quotes missing • May be referred for action in accordance with *IIE 0023 Intellectual Integrity Policy*

CASE STUDY:

Study the following case study and answer the questions that are based thereon:
NORTH TO SOUTH is a small privately owned delivery company situated in your local neighbourhood. NORTH TO SOUTH has grown from strength to strength due to excellent service and a wide variety of delivery options. The company at present is under pressure due to the increase in customers, staff, drivers, vehicles and deliveries.

You have been contracted to design a database for NORTH TO SOUTH. The company opened their doors to the public 24 months ago and requires a database to manage their customers, staff, drivers, vehicles, deliveries and billing. At present there is only one outlet, but a new franchised outlet will be opening in the next six months.

The following has been provided:

CUSTOMER TABLE

CUSTOMER_ID	FIRST_NAME	SURNAME	ADDRESS	PHONE_NUM	EMAIL
11011	Bob	Smith	18 Water rd	0877277521	bobs@isat.com
11012	Sam	Hendricks	22 Water rd	0863257857	shen@mcom.co.za
11013	Larry	Clark	101 Summer lane	0834567891	larc@mcom.co.za
11014	Jeff	Jones	55 Mountain way	0612547895	jj@isat.co.za
11015	Andre	Kerk	5 Main rd	0827238521	akerk@mcal.co.za

STAFF TABLE

STAFF_ID	FIRST_NAME	SURNAME	POSITION	PHONE_NUM	ADDRESS	EMAIL
51011	Sally	Du Toit	Logistics	0825698547	18 Main rd	sdut@isat.com
51012	Mark	Wright	CRM	0836984178	12 Cape Way	mwright@isat.com
51013	Harry	Sheen	Logistics	0725648965	15 Water Street	hsheen@isat.com
51014	Jabu	Xolani	Logistics	0823116598	18 White Lane	jxo@isat.com
51015	Roberto	Henry	Packaging	0783521457	55 Cape Street	rhenry@isat.com

DRIVER TABLE

DRIVER_ID	FIRST_NAME	SURNAME	DRIVER_CODE	PHONE_NUM	ADDRESS
81011	Brett	Marshall	C1	0725698547	18 Leopard creek
81012	Tina	Mtati	C	0636984178	12 Cape rd
81013	Richard	Mvuyisi	EC1	0725648965	15 Circle lane
81014	Jonathan	Smith	C1	0623116598	18 Beach rd
81015	Sisanda	Buthelezi	EB	0883521457	55 Summer lane

VEHICLE TABLE

VIN_NUMBER	VEHICLE_TYPE	MILEAGE	COLOUR	MANUFACTURER
1ZA55858541	Cutaway van chassis	115352	RED	MAN
1ZA51858542	Flatbed truck	315856	BLUE	ISUZU
1ZA35858543	Medium Standard Truck	789587	SILVER	MAN
1ZA15851545	Flatbed truck	555050	WHITE	MAN
1ZA35868540	Cutaway van chassis	79058	WHITE	ISUZU

BILLING TABLE

BILL_ID	CUSTOMER_ID	STAFF_ID	BILL_DATE
800	11011	51011	06/SEP/16
801	11012	51013	07/SEP/16
802	11014	51015	10/NOV/16
803	11015	51012	09/DEC/16
804	11013	51014	09/DEC/16

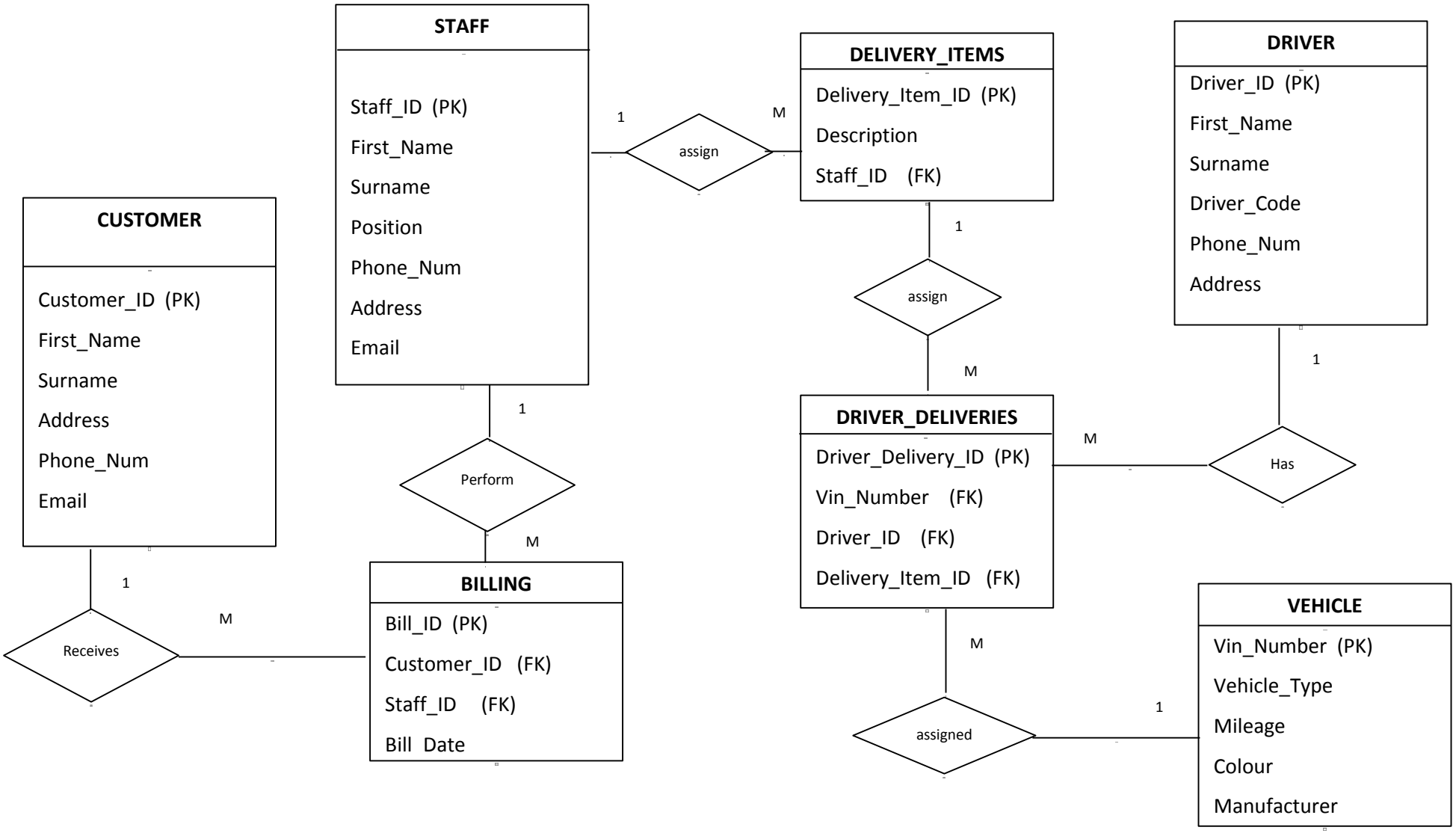
DELIVERY_ITEMS TABLE

DELIVERY_ITEM_ID	DESCRIPTION	STAFF_ID
71011	House relocation	51011
71012	Office relocation	51013
71013	Delivery of specialized consignments	51015
71014	Office relocation	51012
71015	Delivery of specialized consignments	51014

DRIVER_DELIVERIES TABLE

DRIVER_DELIVERY_ID	VIN_NUMBER	DRIVER_ID	DELIVERY_ITEM_ID
91011	1ZA55858541	81011	71011
91012	1ZA35858543	81012	71013
91013	1ZA55858541	81011	71014
91014	1ZA35868540	81013	71015
91015	1ZA15851545	81014	71012

NORTH SOUTH DELIVERIES



You are tasked to code the following:

State all assumptions you need to develop the queries. Copy and paste the SQL code and the screenshot of the results into a Word document.

Save this file as "ADDB7311 Assignment 1 – Student Number". Print this out and hand in with a coversheet.

Question 1 (Marks: 10)

Create table statements for all the tables in the ERD above using a new database schema.

Requirement	Mark	Examiner
New database schema created and all tables created correctly.	10	

Question 2 (Marks: 10)

Using SQL code create and populate each of the tables with the provided information using SQL Developer or SQL*PLUS.

Requirement	Mark	Examiner
Insert statements per table inserted correctly.	10	

Question 3 **(Marks: 6)**

Create a SQL query to display the combined customer name, staff id, driver id and the description of the delivery.

Sample Results:

CUSTOMER	STAFF_ID	DRIVER_ID	DESCRIPTION
Larry, Clark	51014	81013	Delivery of specialized consignments
Sam, Hendricks	51013	81014	Office relocation
Jeff, Jones	51015	81012	Delivery of specialized consignments
Andre, Kerk	51012	81011	Office relocation
Bob, Smith	51011	81011	House relocation

Requirement	Mark	Examiner
Correct select statement	2	
Correct tables used	2	
Correct where statements and order by	2	
Total	**6**	

Question 4 **(Marks: 4)**

Create a SQL query to display the driver first name and surname, vehicle type and the description of the delivery that was performed. In your query only display the records for driver 81011.

Sample Results:

FIRST NAME	SURNAME	VEHICLE_TYPE	DESCRIPTION
Brett	Marshall	Cutaway van chassis	House relocation
Brett	Marshall	Cutaway van chassis	Office relocation

Requirement	Mark	Examiner
Correct select statement	1	
Correct tables used	1	
Correct where statements.	2	
Total	**4**	

Question 5 (Marks: 10)

Create a PL/SQL block query that will display the vehicle name and manufacturer that has done over 700 000km.

Sample Results:

VEHICLE: Medium Standard Truck

MILEAGE: 789587 km

MANUFACTURER: MAN

Requirement	Mark	Examiner
Declare statement	1	
Variables declared	2	
Begin statement	1	
Correct select statement used	2	
Correct table used	1	
Correct where clause used	1	
Output displayed	1	
End statement	1	
Total	**10**	

Question 6 (Marks: 10)

A vehicle of NORTH TO SOUTH is about to do a delivery that is 983km in distance. Management requires a PL/SQL query to display what the original mileage of the vehicle is and what the new mileage will be after the delivery. In your query make use of the vin number 1ZA35868540.

Sample Results:

anonymous block completed

VEHICLE: Cutaway van chassis

ORIGINAL MILEAGE: 79058 km

NEW MILEAGE: 80041 km

Requirement	Mark	Examiner
Declare statement	1	
Variables declared	1	
Begin statement	1	
Correct select statement used	1	
Correct table used	1	
Correct where clause used	2	
Output displayed	2	
End statement	1	
Total	**10**	

Question 7 **(Marks: 12)**

Create a PL/SQL query that will display the combined customer name, bill date, description of the delivery and the vehicle that will be used for the delivery. In your query only display the deliveries taking place on the 10 November 2016.

Sample Results:

anonymous block completed

CUSTOMER: Jeff, Jones

BILL DATE: 10/NOV/16

DESCRIPTION: Delivery of specialized consignments

VEHICLE: Medium Standard Truck

Requirement	Mark	Examiner
Declare statement	1	
Variables declared	2	
Begin statement	1	
Correct select statement used	2	
Correct table used	1	
Correct where clause used	2	
Output displayed	2	
End statement	1	
Total	**12**	

Question 8 (Marks: 14)

Create a PL/SQL query that will display the vehicle vin number, vehicle type and how many deliveries have currently been made. In your query display if the vehicle requires an inspection or not.

Note: A vehicle requires an inspection if the delivery count is two or more.

Sample Results:

anonymous block completed

VIN NUMBER: 1ZA55858541

VEHICLE: Cutaway van chassis

DELIVERY COUNT: 2

INSPECTION: INSPECTION REQUIRED

VIN NUMBER: 1ZA35858543

VEHICLE: Medium Standard Truck

DELIVERY COUNT: 1

INSPECTION: INSPECTION NOT REQUIRED

VIN NUMBER: 1ZA15851545

VEHICLE: Flatbed truck

DELIVERY COUNT: 1

INSPECTION: INSPECTION NOT REQUIRED

VIN NUMBER: 1ZA35868540

VEHICLE: Cutaway van chassis

DELIVERY COUNT: 1

INSPECTION: INSPECTION NOT REQUIRED

Requirement	Mark	Examiner
Declare statement	1	
Variables declared	2	
Begin statement	1	
Correct select statement used	2	
Correct table used	2	
Correct use of decision statement	3	
Output displayed	2	
End statement	1	
Total	**14**	

Question 9 (Marks: 14)

Create a PL/SQL query that will display the driver first name and surname that has not yet made a delivery.

In your query include a print out to determine if the driver requires a delivery job.

Sample Results:

anonymous block completed

FIRST NAME: SISANDA

SURNAME: BUTHELEZI

DELIVERY JOB REQUIRED: YES

Requirement	Mark	Examiner
Declare statement	1	
Variables declared	2	
Begin statement	1	
Correct select statement used	2	
Correct table used	2	
Correct use of decision statement	3	
Output displayed	2	
End statement	1	
Total	**14**	

Question 10 (Marks: 10)

Create a view to display the customer name, the description of the delivery and how many days the delivery took if the customer received the item on the 15 December 2016. In your query only show the results for the billing id 804 and the code to execute the view.

Sample Results:

FIRST NAME	SURNAME	DESCRIPTION	DELIVERY_TIME
Larry	Clark	Delivery of specialized consignments	6 days

Requirement	Mark	Examiner
View created	1	
Correct select statement used	2	
Correct table used	2	
Correct where clause used	2	
Output displayed	2	
Code to execute the view	1	
Total	**10**	

[TOTAL MARKS: 100]