Time: \_\_\_\_\_

Rank:

# DATABASE APPLICATIONS (240)

# **REGIONAL – 2018**

#### **Production:**

TOTAL POINTS	(270 points)
Job 4: Vehicle Type Query	( 60 points)
Job 3: Create a Permanent Relationship	(20 points)
Job 2: Vehicle Table	( 90 points)
Job 1: Employee Table	(100 points)

Failure to adhere to any of the following rules will result in disqualification:

- 1. Contestant must hand in this test booklet and all printouts. Failure to do so will result in disqualification.
- 2. No equipment, supplies, or materials other than those specified for this event are allowed in the testing area. No previous BPA tests and/or sample tests or facsimile (handwritten, photocopied, or keyed) are allowed in the testing area.
- 3. Electronic devices will be monitored according to ACT standards.

No more than ten (10) minutes orientation No more than ninety (90) minutes testing time No more than ten (10) minutes wrap-up

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# DATABASE APPLICATIONS SCORING SHEET

Unless indicated otherwise, student receives all points or none.	Points Possible	Points Earned
Job 1 – Employee Table (100 points maximum)		
Designed as instructed (10 points off per field for inaccurate field names, inappropriate data types, and properties not set as instructed)	70	
Proofreading/data entry (10 points – Zero errors; 9 points – 1 error; 7 points – 2 errors; 5 points – 3 errors; 0 points – 4+ errors)	10	
Sorted by Hire Date (descending)	10	
Printed in portrait orientation (all data shows, 1 page)	10	
Job 2 – Vehicle Table (90 points maximum)		
Designed as instructed (10 points off per field for inaccurate field names, inappropriate data types, and properties not set as instructed)		
Proofreading/data entry (10 points – Zero errors; 9 points – 1 error; 7 points – 2 errors; 5 points – 3 errors; 0 points – 4+ errors)	10	
Sorted by Vehicle Num (ascending)	10	
Printed in landscape orientation, 1 page, all fields fully visible		
Job 3 – Create a Permanent Relationship (20 points maximum)		
Relationship created		
Printed with both tables fully visible		
Job 4 – Vehicle Type Query (60 points maximum)		
Correct fields are visible: Last Name, First Name, Vehicle Make, Vehicle Model (5 points off for each missing field)		
Sorted by Last Name (ascending)	10	
Results show design correctly joins both tables (no extra records)	20	
Printed in portrait orientation, 1 page, all fields fully visible	10	
Total Points Earned	270	

#### **GENERAL INSTRUCTIONS**

- 1. Make certain this test booklet contains Jobs 1-5.
- 2. Your name, initials, and school should *not* appear on any work you submit. Instead, type your contestant number everywhere XX-XXXX-XXXX appears.
- 3. If you finish before the end of the testing time, notify the administrator of the contest. Time may be a factor in determining placement in the event of a tie.
- 4. When turning in your completed work, order the printed pages by job number, and place your scoring sheet on top of all of your jobs.
- 5. When turning in your completed work, order the printed pages by job number, and place your scoring sheet on top of all your jobs.
- 6. Save all work with your contestant number on the flash drive provided by the contest administrator.

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Professional Business Associates develops and sells software, hardware, and services. The services provided are: systems analysis, software development and design, marketing, training development, and hardware and software sales. Professional Business Associates allows authorized employees to operate a PBA vehicle in the course of their assigned work. Some employees may choose to operate their own vehicle while performing PBA duties.

Julie Smith, Human Resources Department manager, has asked you to create a database to keep track of all employees and their driving/vehicle records. Create a database named **Regional-XX-XXXX-XXXX**, and save it as directed by the administrator.

#### **JOB 1: Employee Table**

- 1. Create the table named **Employee XX-XXXX-XXXX**.
  - a. Employee ID is the primary key.
  - b. Field Names should <u>not</u> include spaces.
  - c. Data Type and Properties:

Field	Data Type	Properties
Employee ID	Short Text	Field Size: 7
Last Name	Short Text	Field Size: 30
First Name	Short Text	Field Size: 30
DL Number	Number	Field Size: Long Integer
Hire Date	Date/Time	Format: Short Date
DOT Physical Due	Date/Time	Format: Short Date
Vehicle Num	Number	Field Size: Long Integer

2. Enter all records shown below:

Employee ID	Last Name	First Name	DL Number	Hire Date	DOT Physical Due	Vehicle Num
ASD3021	Renick	Edna	104529483	10/21/2009	11/23/2018	214
CEO1456	Wells	Nancy	101142748	3/18/2003	4/23/2018	218
FSD3920	Rosen	Harvey	104950293	5/21/2006	6/18/2018	229
HRD3401	Smith	Julie	104839103	4/14/2008	5/26/2018	225
ITD3019	Carlson	Tom	106930583	11/3/2001	12/14/2018	224
MDK1045	Meyer	Roger	104549288	2/15/2012	3/26/2018	235

- 3. Adjust the column widths so all entries are visible.
- 4. Sort the table by Hire Date (descending).
- 5. Print the table in portrait orientation. All data should be visible on one page.

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## **JOB 2: Vehicle Table**

- 1. Create a table named Vehicle XX-XXXX-XXXX.
  - a. VIN Num is the primary key.
  - b. Field Names should <u>not</u> include spaces.
  - c. Data Type and Properties:

Field	Data Type	Properties	
Vehicle Num	Number	Field Size: Long Integer	
VIN Num	Short Text	Field Size: 25	
Vehicle Year	Number	Field Size: Long Integer	
Vehicle Make	Short Text	Field Size: 30	
Vehicle Model	Short Text	Field Size: 30	
Plate Number	Short Text	Field Size: 10	

2. Enter all records shown below:

VehicleNum	VINNum	VehicleYear	VehicleMake	VehicleModel	PlateNumber
214	1HBH41JXMN109186	2013	GMC	Yukon	H23308
224	JHLRD77874C026456	2016	Toyota	Camry	K54614
218	1HGBH41JXMN39186	2017	Ford	Focus	150908
235	1G1YY25R695700001	2015	Nissan	Murano	139408
229	1G1YZ23J9P5800001	2016	Hyundai	Sonata	YTE834
225	1GNCS1Z3M0115561	2017	Dodge	Challenger	H53507

3. Sort the table by VehicleNum (ascending).

4. Print the table in landscape orientation. All data should be visible on one page.

## **JOB 3: Create a Permanent Relationship**

- 1. Create a permanent relationship between VehicleNum in the two tables.
- 2. Resize/move the tables so each table name and each field is fully visible in the relationship window.
- 3. Create and print the relationship report.

## **JOB 4: Vehicle Type Query**

1. Create a query named **Vehicle Type Query XX-XXXX** using the tables/fields listed below:

<u>Employee</u>	Vehicle
LastName	VehicleMake
FirstName	VehicleModel

- 2. Sort by Last Name (ascending order).
- 3. Print the results in portrait orientation. All data should be visible on one page.

#### When finished, place your printouts in the following order:

- 1. Employee table
- 2. Vehicle table
- 3. Relationship report
- 4. Vehicle Type Query
- 5. All incomplete/incorrect printed pages (draw a line through each one).