

Member ID: \_\_\_\_\_

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

Rank: \_\_\_\_\_



# DATABASE APPLICATIONS (240)

## REGIONAL 2025

### Production:

Job 1: Employee Table \_\_\_\_\_ (100 points)

Job 2: Vehicle Table \_\_\_\_\_ ( 90 points)

Job 3: Create a Permanent Relationship \_\_\_\_\_ ( 20 points)

Job 4: Vehicle Type Query \_\_\_\_\_ ( 60 points)

***TOTAL POINTS*** \_\_\_\_\_ ***(270 points)***

**Test Time: 90 minutes**

**GENERAL GUIDELINES:**

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

1. Member must hand in this test booklet and all printouts if any. 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 (handwritten, photocopied, or keyed) are allowed in the testing area.
3. Electronic devices will be monitored according to ACT standards.

**EXAM GUIDELINES:**

1. Ensure this test booklet contains Jobs 1-4.
2. Key all jobs according to the instructions given.
3. Correct all formatting, spelling or grammar errors. Use the formatting guide in the *Style & Reference Manual*.
4. Your name or initials should *not* appear on any work you submit. Use your Member ID on any occasion you would normally key your reference initials.
5. If you complete the event before the end of the time allotted, notify the proctor. Time may be considered a factor in determining a winner when there is a tie score.
6. Place your scoring sheet on top of your jobs. Jobs should be placed in numerical order.

## SCORING RUBRIC

|   | Points Possible | Points Earned |
|---|-----------------|---------------|
| <b>Job 1 – Employee Table</b>   |                 |               |
| Designed as instructed.<br>10 points off per field for inaccurate field names, inappropriate data types, and properties not set as instructed | 70              |               |
| Production standards<br>0 Errors = 10 points, 1 error = 9 points, 2 errors = 7 points,<br>3 = 5 points, 4+ errors = 0 points                  | 10              |               |
| Sorted by Hire Date (descending)  | 10              |               |
| Printed or uploaded in portrait orientation (all data shows, 1 page)  | 10              |               |
| <b>Subtotal</b>   | <b>100</b>      |               |
| <b>Job 2 – Vehicle Table</b>  |                 |               |
| Designed as instructed.<br>10 points off per field for inaccurate field names, inappropriate data types, and properties not set as instructed | 60              |               |
| Production standards<br>0 Errors = 10 points, 1 error = 9 points, 2 errors = 7 points,<br>3 = 5 points, 4+ errors = 0 points                  | 10              |               |
| Sorted by Vehicle Num (ascending)   | 10              |               |
| Printed in landscape orientation, 1 page, all fields fully visible  | 10              |               |
| <b>Subtotal</b>   | <b>90</b>       |               |
| <b>Job 3 – Create a Permanent Relationship</b>  |                 |               |
| Relationship created  | 10              |               |
| Printed with both tables fully visible  | 10              |               |
| <b>Subtotal</b>   | <b>20</b>       |               |
| <b>Job 4 – Vehicle Type Query</b>   |                 |               |
| Correct fields are visible: Last Name, First Name, Vehicle Make, Vehicle Model (5 points off for each missing field)                          | 20              |               |
| 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              |               |
| <b>Subtotal</b>   | <b>60</b>       |               |
| <b>Total Points Earned</b>  | <b>270</b>      |               |

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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 Member ID**

### JOB 1: Employee Table

1. Create the table named **Employee Member ID**.
  - a. Employee ID is the primary key.
  - b. Field Names should not 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 ▾ | LastName ▾ | FirstName ▾ | DLNumber ▾ | HireDate ▾ | DOTPhysical Due ▾ | VehicleNUM ▾ |
|---------------|------------|-------------|------------|------------|-------------------|--------------|
| ASD3021       | Renick     | Edna        | 104529483  | 10/21/2014 | 11/26/2024        | 213          |
| CEO1456       | Wells      | Nancy       | 101142748  | 3/18/2009  | 4/23/2024         | 218          |
| FSD3920       | Rosen      | Harvey      | 104950293  | 5/21/2016  | 6/18/2024         | 229          |
| HRD3401       | Smith      | Julie       | 104839103  | 4/14/2014  | 5/26/2024         | 225          |
| ITD3019       | Carlson    | Tom         | 106930583  | 11/3/2021  | 12/14/2024        | 224          |
| MDK1045       | Meyer      | Roger       | 104549288  | 3/26/2018  | 3/26/2024         | 235          |

3. Adjust the column widths so all entries are visible.
4. Sort the table by Hire Date (descending).
5. Print or upload as directed to the table in portrait orientation.
  - a. All data should be visible on one page.
6. Take a screenshot of the table design view and paste it onto a Word document.
  - a. Save as Table Design Screenshots Member ID.

## JOB 2: Vehicle Table

1. Create a table named **Vehicle Member ID**
  - a. VIN Num is the primary key.
  - b. Field Names should not 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  | 2019          | GMC           | Yukon          | H23308        |
| 224          | JHLRD77874C026456 | 2022          | Toyota        | Camry          | K54614        |
| 218          | 1HGBH41JXMN39186  | 2023          | Ford          | Focus          | 150908        |
| 235          | 1G1YY25R695700001 | 2021          | Nissan        | Murano         | 139408        |
| 229          | 1G1YZ23J9P5800001 | 2022          | Hyundai       | Sonata         | YTE834        |
| 225          | 1GNCS1Z3M0115561  | 2023          | Dodge         | Challenger     | H53507        |

3. Sort the table by VehicleNum (ascending).
4. Print or upload as directed to the table in landscape orientation.
  - a. All data should be visible on one page.
5. Take a screenshot of the table design view and paste on the same document as Job 1.
  - a. Save as Table Design Screenshots Member ID.

## 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 are fully visible in the relationship window.
3. Create and print or upload as directed the relationship report.
  - a. All data should be visible on one page.

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

1. Create a query named **Vehicle Type Query Member ID** using the tables/fields listed below:

| Field         | Table                    |
|---------------|--------------------------|
| Employee ID   | Employee Member ID Table |
| Last Name     | Employee Member ID Table |
| First Name    | Employee Member ID Table |
| Vehicle Num   | Vehicle Member ID Table  |
| Vehicle Make  | Vehicle Member ID Table  |
| Vehicle Model | Vehicle Member ID Table  |

2. Employee ID is not shown in the query.
3. Sort by Last Name (ascending order).
4. Print or upload as directed the results in portrait orientation.
  - a. All data should be visible on one page.

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**When finished, these are your printouts or uploads:**

1. Employee Member ID
2. Vehicle Member ID
3. Table Design Screenshots Member ID
4. Relationship Member ID
5. Vehicle Type Query Member ID