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| **Individual Queries** |  |
| [Individual Queries 1](#_Toc14331172)  [CSCI 331 Database 1](#_Toc1229991997)  [Student: JASMINE KIM 2](#_Toc126882216)  [Teacher: PETER HELLER 2](#_Toc326688627)  [BEST 2](#_Toc210012777)  [SIMPLE 2](#_Toc634863326)  [MEDIUM 7](#_Toc967509442)  [COMPLEX 9](#_Toc137511722)  [WORST 10](#_Toc1617905278)  [SIMPLE 11](#_Toc73677747)  [COMPLEX 11](#_Toc2105575388)  [CORRECTION 13](#_Toc2108291770)  [SIMPLE 13](#_Toc298705177)  [COMPLEX 13](#_Toc801888562) |  |
|  | CSCI 331 Database |
|  | Student: JASMINE KIMTeacher: PETER HELLER *Group: 2* |

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|  | BESTSIMPLE Example of PurchaseOrders sub-system in AdventureWorks2017    Diagram of Tables    Columns from Standard View  **MISSING**  **Proposition 01**: Find out the list of products that have never been sold using AdventureWorks2017.  Detailed Explanation of the problem that will help the developer to write the query to resolve the issue.  Perform a left outer join and filter the rows by identifying where PurchaseOrderID is NULL.  Project following columns from their respective tables in the select clause   |  |  | | --- | --- | | Table Name | Column Name | | Product.Production | ProductId  Name | | Purchasing.PurchaseOrderDetail | PurchaseOrderID | |  |  |   Order By   |  |  |  | | --- | --- | --- | | Table Name | Column Name | Sort Order | | Product.Production | ProductId | ASC |   Problem Solving Query    Sample Relational Output with total number of rows returned (239)    Sample JSON Output with total number of rows returned (239)     MEDIUM Example of Customer sub-system in Northwinds2022TSQLV7    **Proposition 02**: Give the owners and sales agents their own number. Replace the empty/null customer region with more information.  Detailed explanation of the problem that will help the developer to write the query to resolve the issue  First create a VIEW that filters for the Owners and Sales Agents. Then use the ROW\_NUMBER() SQL built-in function to generate a unique number for each Owners and Sales Agents. Use COALESCE function to display “No Region” instead of NULLs. Use CONCAT function to generate a new label for Owners and Sales Agents.  Diagram of tables    Columns from Standard view    Project following columns from their respective tables in the select clause   |  |  | | --- | --- | | Table Name | Column Name | | Utils.OwnersAndAgents | CustomerId  CustomerContactTitle  CustomerCity  CustomerRegion  CustomerCountry | | Sales.Customer | CustomerContactTitle  CustomerId  CustomerContactTitle | | Derived Column |  |   Order By   |  |  |  | | --- | --- | --- | | Table Name | Column Name | Sort Order | | Product.Production | ProductId | ASC |   Problem solving Query  Graphical user interface, text, application, email  Description automatically generated  Text  Description automatically generated with medium confidence  Sample Relational Output with total number of rows returned ()  Sample JSON Output with total number of rows returned () COMPLEX Example of Customer sub-system in.  Proposition 03:  Detailed explanation of the problem that will help the developer to write the query to resolve the issue  Diagram of tables  Columns from Standard view  Project following columns from their respective tables in the select clause  Order by  Problem solving Query  Sample Relational Output with total number of rows returned ()  Sample JSON Output with total number of rows returned ()  **Proposition:** Find out the top 3 most expensive items each customer has every purchased.  Graphical user interface, text, application, email  Description automatically generated  Graphical user interface, text, application  Description automatically generated WORSTSIMPLE Example of Customer sub-system in  Proposition :  Detailed explanation of the problem that will help the developer to write the query to resolve the issue  Diagram of tables  Columns from Standard view  Project following columns from their respective tables in the select clause  Order by  Problem solving Query  Sample Relational Output with total number of rows returned ()  Sample JSON Output with total number of rows returned ()  **MEDIUM**  Example of Customer sub-system in  Proposition :  Detailed explanation of the problem that will help the developer to write the query to resolve the issue  Diagram of tables  Columns from Standard view  Project following columns from their respective tables in the select clause  Order by  Problem solving Query  Sample Relational Output with total number of rows returned ()  Sample JSON Output with total number of rows returned () COMPLEX Example of Customer sub-system in  Proposition :  Detailed explanation of the problem that will help the developer to write the query to resolve the issue  Diagram of tables  Columns from Standard view  Project following columns from their respective tables in the select clause  Order by  Problem solving Query  Sample Relational Output with total number of rows returned ()  Sample JSON Output with total number of rows returned () CORRECTIONSIMPLE **MEDIUM** COMPLEX | |  |