1. For each employee, display the first name, last name, department number and department name.
2. Display the first name, last name, department number and department name, for all employees in departments 50 or 90.
3. For each department, display the department name, city, and state province.
4. For each employee, display the full name, department name, city, and state province.
5. Display the full name, department name, city, and state province, for all employees whose last name contains the letter a.
6. For each employee, display the first name, salary, and job grade
7. Display the first name, last name, department number and department name, for all employees including those without any department.
8. Modify your query to display all departments including departments without any employees.
9. For each employee, display the last name, and the manager’s last name.
10. Modify your query to display all employees including those without any manager.
11. Display the first name, last name, and department number for all employees who work in the same department as employee whose last name is “King”.
12. Display the last name and salary for all employees who earn less than employee number 103.
13. Write a SQL statement to make a join on the tables salesman, customer and orders in such a form that the same column of each table will appear once and only the relational rows will come.
14. Write a SQL statement to know which salesman are working for which customer.
15. Write a SQL statement to make a list with order no, purchase amount, customer name and their cities for those orders which order amount between 500 and 2000.
16. Write an SQL statement to get the total number of Orders of Customers. Display the Customer details & order details. Also make sure that the columns do not repeat.
17. Display the total number of Sales order of salesperson. Display details of Salesperson & total number of Orders.
18. Write a SQL statement to make a list in ascending order for the customer who works either through a salesman or by own
19. Write a SQL statement to make a report with customer name, city, order number, order date, and order amount in ascending order according to the order date to find that either any of the existing customers have placed no order or placed one or more orders.
20. Write a SQL statement to make a Cartesian product between salesman and customer i.e. each salesman will appear for all customer and vice versa for those salesmen who belongs to a city and the customers who must have a grade.
21. Create a use defined function to get the details of the sales person on the basis of the SalesPersonID. For Example, If I give the SalesPersonID 5000 as an input parameter of the function, then it should return me all the data of SalesPersonID=5000
22. Write a SQL statement to display ProductDetails & the Total number of Orders for each Product having an OrderCount > 5 (using a sub query)
23. Write a query that returns all the orders which are placed by the customers and who belong to London city. (using a subquery)
24. Write a query that is opposite to the first one which fetches all the orders placed by all the customers excluding the customers who belongs to London city. (using a sub query)
25. Write a SQL statement to details the details of all the employees having name as ‘Jayna Shah’,’Het Vakil’, ‘Jimmish Patel’, ‘Harsh Mehta’, ‘Ramesh Kandola’
26. Write a SQL statement to details the details of all the employees not having name as ‘Jayna Shah’,’Het Vakil’, ‘Jimmish Patel’, ‘Harsh Mehta’, ‘Ramesh Kandola’
27. Write a query that is opposite to the first one which fetches all the orders placed by all the customers who belongs to London, Pune city.
28. Write a query that is opposite to the first one which fetches all the orders placed by all the customers who does not belong to London,Ahmedabad city.
29. CAST & CONVERT
30. CASE
31. Coalesce
32. Current\_User
33. ISDATE()
34. ISNUMERIC()
35. ISNULL()
36. LAG
37. LEAD
38. NULLIF
39. CONCAT
40. Difference between CAST & Convert,
41. Display the SalesOrder Details having the Date column in US standard time
42. Display the AgeGroup of SalesPerson, If a person is having the age < 20 then the output should be <20, if the age is between 20 and 30, then output should be 20-30, if the age is between 30 and 40 then the output should be 30-40 else >40
43. Display the Details of a SalesOrder for each Customer.
44. Get the Name Current\_User,Version
45. Write a query to display the date column having null dates with 1900/01/01
46. Write a query to Display CustomerFull Name and other details of the Customer
47. Write a Query to get the exact Row count of the how many time a customer placed an order (use windowing function)
48. Difference between the Rank & DenseRank
49. Write a Query to Replace “RAM” in CustomerName to Display “SHA”
50. Write a query to display the substring “BHU” in CustomerName for CustomeID=7
51. Write a query to display the substring “MIT” in CustomerName for CustomeID=7
52. Write a query to display the substring “UMI” in CustomerName for CustomeID=7
53. Write a query to get the SalesOrder details with the Next SalesAmount (LEAD function)
54. Write a query to get the SalesOrder details with the Previous SalesAmount (LAG function)
55. Write a query to get the List of all the Customers who bought the same Product
56. Difference between CAST & Convert,
57. Display the SalesOrder Details having the Date column in US standard time
58. Display the AgeGroup of SalesPerson, If a person is having the age < 20 then the output should be <20, if the age is between 20 and 30, then output should be 20-30, if the age is between 30 and 40 then the output should be 30-40 else >40
59. Display the Details of a SalesOrder for each Customer.
60. Get the Name Current\_User,Version
61. Write a query to display the date column having null dates with 1900/01/01
62. Write a query to Display CustomerFull Name and other details of the Customer
63. Write a Query to get the exact Row count of the how many time a customer placed an order (use windowing function)
64. Difference between the Rank & DenseRank
65. Write a Query to Replace “RAM” in CustomerName to Display “SHA”
66. Write a query to display the substring “BHU” in CustomerName for CustomeID=7
67. Write a query to display the substring “MIT” in CustomerName for CustomeID=7
68. Write a query to display the substring “UMI” in CustomerName for CustomeID=7
69. Write a query to get the SalesOrder details with the Next SalesAmount (LEAD function)
70. Write a query to get the SalesOrder details with the Previous SalesAmount (LAG function)
71. Write a query to get the List of all the Customers who bought the same Product
72. Temp Tables
73. Aliases
74. Indexes
75. With (NOLOCK)
76. Execution plans
77. Data warehouse concepts
78. Database Tuning advisor
79. Select \* into
80. Insert select
81. Union vs Union all
82. Intersect
83. Except
84. Views
85. Inline function
86. Create a view that will get the details of the Customers who has done purchases in the December,2016
87. Create a copy of that view to a table
88. Create a stored procedure that will get the details of the sales persons and their actual sales for the month of December,2016
89. Create a trigger that will fetch the data from the table immediately after an insert or update.
90. Copy the data of the Salesperson to a temporary table
91. Understand about collation conflicts
92. Encode and Decode a SQL variable and SQL column
93. Understand the difference between CASE and DECODE in SQL with example,
94. Create an inline view to get the details of all the customers who have done purchases between 1/1/2016 and 12/31/2016
95. Understand Pivot and Unpivot with example
96. Understand about Cross Apply and Outer apply and how they are different from joins, with examples
97. Understand different types of isolation levels
98. Understand Stuff function and how it is different from CONCAT
99. Handling multiple rows. Write a Query to get the Min Date and Max Date of joining of SalesPerson, if a salesperson has joined the company in 01/01/2006 and left in 06/01/2006 and again rejoined on 08/02/2007 and hasn’t left yet then the Min date should be 01/01/2006 and Max date should be 12/31/2100. Get all the details for that sales person and store the data in a table variable and temp table.
100. Write a query, to get the details a product in the same record of a sales order table, If a Customer has bought multiple product from same sales order and display it on same row. The ProductName  should be comma separated.
101. ETL
102. Data warehouse
103. Architecture of data warehouse
104. Data warehouse design schemas
105. Dimension and Facts
106. SCD(Slowly Changing Dimension)
107. OLAP
108. Data Mart
109. MOLAP
110. ROLAP
111. HOLAP
112. OLAP vs OLTP
113. Design the Data warehouse and Staging Database.
114. Understand SSIS components (Data Flow task, Execute SQL task, Bulk Insert task and Containers)
115. Create the Data warehouse design for the Trainees database
116. Understand the following Components in SSIS:
     1. Data Flow Task
     2. Execute SQL Task
     3. SSIS Source – understand all the different types of Sources available in SSIS
     4. SSIS Destination – understand all the different types of Destinations available in SSIS
     5. Row Count transformation
     6. Data Conversion Component
     7. Derived column component
117. Create SSIS packages to Extract the data from Source to Staging Database.
118. Understand the Row Sampling and Percentage Sampling.
119. Bulk Insert task
120. Expression Task
121. Understand how to set variables in SSIS
122. Conditional Split transformation
123. Data Conversion component
124. Merge component
125. Merge Join Component
126. Create SSIS package to perform Transform and Load data in the Data Warehouse
127. Execute Process task
128. File System Task
129. Send Mail Task
130. For Loop Container
131. For Each Loop Container
132. Sequence Container
133. Understand Execute Package task
134. Pivot & Unpiviot Transformations
135. Script Task
136. Script Component
137. Execute T-SQL Statement Task
138. Understand Check point configurations in SSIS
139. Variable & parameters in SSIS
140. Understand SQL Server Integration Services catalog
141. Learn about how to Deploy SSIS Project
142. Difference between Project Deployment Model and Package Deployment Model
143. Understand about SSISDB
144. And Query SSISDB to get the execution information about the packages
145. Create an SSIS package to Load the data from 4 Flat Files to SQL Server table, the Source should be dynamic
146. Create a SQL Server Query to get the Execution information from SSISDB, the Query should contain the information of the package execution status.
147. Create DW tables and SSIS packages to load the data in those tables.
148. Study Cube and Dimension Properties
149. How can we add more than 2 columns to display in Dimension when we browse the Cube.
150. When we browse the cube, display Names instead of ID columns for all dimensions
151. Study about Time Intelligence.
152. Study about Dimension Hierarchy. Implement Dimension Hierarchy for Date dimension.
153. Understand Attribute Relationships in Dimensions, implement the same for Dim Date
154. Verify the data of Cube with SQL Server data
155. Merge the solutions of SSIS and SSAS projects.
156. Process the SSAS Cube from SSIS package
157. Study the Dimension Properties: Error Configurations, Attribute Hierarchy Enabled, Attribute Hierarchy Visible,Default Member, Format String, Unknown Member
158. Understand MDX query and basic syntax for the same.
159. After understanding these functions, Create a calculated Measure for your cube to get the sales of Previous year.
160. Create a Calculated Measure to get the sales of previous year, if the value is null then it should display 0, else whatever the amount
161. Create a KPI to display the Trend in Sales.
162. Understand SSAS Action, Aggregation and Partition
163. Create an Action in your sales Cube for Customer Dimension, that is if I click on any of the Customer name the Analysis in Excel will redirect me to a page containing the information of that Customer only.
164. Create Partitions on your Cube based on Date Dimension, the Partitions should be of 10 years.
     1. Type
     2. StorageMode
     3. ProvocativeCaching
     4. Error Configurations
165. Understand Roles and row level security in SSAS.
166. Create New SSRS Report as Below Requirement.
     1. Data source server : PI-sql2014
     2. Database : AdventureWorksDW2012
     3. Database Object View : vTargetMail, vAssocSeqOrders
     4. Single Data source in Project
     5. Embedded query dataset in report.
     6. Validate database Credential when open report.
     7. Parameters  in report:
        1. FirstName
        2. LastName
        3. Gender(multi select)
        4. YearlyIncome
        5. Region (multi select)
        6. IncomeGroup (multi select)
        7. From BirthDate datetime
        8. To BirthDate datetime
     8. Report Body columns :
        1. Region
        2. IncomeGroup
        3. Full Name : FirstName Middle Name Last Name
        4. BirthDate
        5. MaritalStatus (Married, unmarried)
        6. Gender
        7. EmailAddress
        8. YearlyIncome
        9. TotalChildren
        10. AddressLine1
        11. AddressLine2
        12. Phone
     9. Sorting by FullName and YearlyIncome.
     10. Use Tabular Report type.
167. Implement Cascading parameters in SSRS report.
168. Convert FirstName and LastName parameter to a text box, if a user types ‘ab’ in FirstName textbox then all the records having ‘ab’ anywhere in First Name should be displayed.
169. Implement multi-level Grouping in SSRS report, there should a row for Totals for Each group.

Create a chart report

1. Bikebuyer - region

2. Bikebuyer - age

also it needs to see data in report

1. Parameter  in report:

* Gender(multi select)
* YearlyIncome : Textbox
* Income criteria (single select): value "yearly income < ", "yearly income >", "yearlyincome ="
* Region (multi select)
* Start date DateFirstPurchase datetime
* To Date DateFirstPurchase datetime

2.            Column Report :

* Region
* IncomeGroup
* Full Name : FirstName Middle Name Last Name
* BirthDate
* MaritalStatus (Married, unmarried)
* Gender
* EmailAddress
* YearlyIncome
* TotalChildren
* AddressLine1
* AddressLine2
* Phone
* DateFirstPurchase
* Bikebuier
* Age

1. Repeat the column headers on every page of the report.
2. Add an image inside a cell of Tablix.
3. Grouping with the Totals row in any report.
4. Add Page Header and Footer in a report. Also , add 2-3 built-in parameters in a footer.
5. Navigating to a different. For example, first show a summary report to view the orders of all the customers, If I click on any Customer’s name, then the report should navigate to a detailed report of all purchases made by that particular customer.
6. Use Cascading parameters in a report.
7. Add Column Groups and Row Group in a report.
8. Add Document Map in SSRS report.
9. Create a calculated field in an SSRS report.
10. Keep Column headers visible while scrolling.
11. Add Formatting indicators. For example, If the sales of Bikes for year 2016 has increased compared to the previous year, then the indicator should display Green upwards Arrow.  If the sales has decreased then it should show red Downwards arrow.
12. Create and configure Linear Gauge in a report to display the sales of Product for Each year.
13. Filtering of a report at DataSet level
14. Show and Hide 2 columns. For Example, Display the column of sales and Quantity of a product only when its ProductCategory is Components or Product is Bikes
15. Add row groups on Product Category,Product Sub Category, Product and Sales Date. The Total rows for all of these groups should be invisible if the Product is other than Bike
16. Also the Report Header should change if the value of Product parameter changes. For Example, Report should show Title like Sales for Bikes. When I select any other Product the value of this header should change accordingly
17. Add the value of ProductID and ProductName to same parameter. For example, If I want to see the parameter for Product then the parameter should display “ProductID - ProductName”.
18. Use SSIS Script task as transformation and write email regex validation in the same
19. Export data from sql to excel (if excel exists than create new one. File name should be date time base. Folder name should be date time.)