## **ST1501 Data Engineering**

## **Class Activity (Practical E1 Submission)**

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| **Class** | DIT/FT/2A/14 |

**Practical E1 Submission Question (Submission Required)**

After completing Practical E1, submit the SQL and screen shots of the following exercises.

1. Find out the number of records in the ‘SalesFacts’, ‘EmployeeDIM’ and ‘CustomerDIM” tables.

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| Type the SQL  SELECT  \*  FROM (  SELECT COUNT(\*) AS SalesRows  FROM SalesFacts  ) AS sales  CROSS JOIN (  SELECT COUNT(\*) AS EmployeeRows  FROM EmployeeDIM  ) AS employees  CROSS JOIN (  SELECT COUNT(\*) AS CustomerRows  FROM CustomerDIM  ) AS customers; |
| Paste the screen shot of query result |

1. Write the SQL statement to find out ‘What is the bestselling product on Tuesday’?

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| Type the SQL  SELECT  TOP (1)  p.ProductName,  SUM(s.Quantity) 'quantity',  t.DayName  FROM  SalesFacts AS s  INNER JOIN TimeDim AS t ON t.TimeKey = s.TimeKey  INNER JOIN ProductDIM AS p ON p.ProductKey = s.ProductKey  WHERE t.DayName = 'Tuesday'  GROUP BY p.ProductName, t.DayName  ORDER BY quantity DESC |
| Paste the screen shot of query result |

1. Write the SQL statement to find out ‘Who is the salesman with the highest Sales in 1996?’.

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| Type the SQL  SELECT  TOP (1)  CONCAT(e.FirstName, ' ', e.LastName) 'EmployeeName',  ROUND(SUM((s.Quantity \* s.UnitPrice) \* (1 - s.Discount)), 2) 'quantity'  FROM  SalesFacts AS s  INNER JOIN EmployeeDIM AS e ON e.EmployeeKey = s.EmployeeKey  INNER JOIN TimeDim AS t ON t.TimeKey = s.TimeKey  WHERE t.Year = 1996  GROUP BY CONCAT(e.FirstName, ' ', e.LastName)  ORDER BY quantity DESC |
| Paste the screen shot of query result |

1. Write the SQL statement to find out ‘Which was the customer who gave the most revenue in Quarter 1 of 1998?”.

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| Type the SQL  SELECT  TOP (1)  c.ContactName,  ROUND(SUM((s.Quantity \* s.UnitPrice) \* (1 - s.Discount)), 2) 'quantity'  FROM  SalesFacts AS s  INNER JOIN CustomerDIM AS c ON c.CustomerKey = s.CustomerKey  INNER JOIN TimeDim AS t ON t.TimeKey = s.TimeKey  WHERE t.Year = 1998 AND t.Quarter = '1'  GROUP BY c.ContactName  ORDER BY quantity DESC |
| Paste the screen shot of query result |

1. Write the SQL statement to find out ‘Which was the region with the least sales in the month of December in 1997?”

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| Type the SQL  SELECT  TOP (1)  r.RegionDesc,  ROUND(SUM((s.Quantity \* s.UnitPrice) \* (1 - s.Discount)), 2) 'quantity'  FROM  SalesFacts AS s  INNER JOIN RegionDIM AS r ON r.RegionKey = s.RegionKey  INNER JOIN TimeDim AS t ON t.TimeKey = s.TimeKey  WHERE t.Year = 1997 AND t.Month = 12  GROUP BY r.RegionDesc  ORDER BY quantity ASC |
| Paste the screen shot of query result |