/\* 1. Show the percentage of earnings by quarter for each year. \*/

|  |
| --- |
| SELECT datedim.year, quarter, CONCAT(ROUND(((SUM(earnings) / totals.total) \* 100), 2), '%') AS "percent earnings" FROM earningsfact JOIN datedim USING(datekey), (  SELECT datedim.year, SUM(earnings) AS total  FROM earningsfact  JOIN datedim ON datedim.datekey = earningsfact.datekey  GROUP BY year ) AS totals WHERE datedim.year = totals.year GROUP BY year, quarter ORDER BY year, quarter |

First, we divide the sum of earnings from each quarter by the inner select which gives us the total sum of earnings over the entire year. This is then multiplied by 100 and rounded to two decimal places to give the percentage earnings. Then, we group and order by year and quarter to group each year/quarter together and sort by year/quarter in order.

/\* 2. Rank the total earnings by month in 2011 but only show the top 5 months. \*/

|  |
| --- |
| SELECT month, SUM(earnings) as earnings FROM customerdim  JOIN earningsfact USING (customerkey) JOIN datedim USING (datekey) WHERE year = 2011 GROUP BY month ORDER BY earnings desc LIMIT 0, 5 |

First, we select the month and the sum of the earnings (as ‘earnings’). Then, we join each table together on the customer and date key and select just the values where the year is 2011. Next, we group by month to group each month together as on. Finally, we order by the earnings descending and limit the results from 0-5 to get the top 5 months by earnings.

/\* 3. Show the earnings by quarter comparing quarters side by side. \*/

|  |
| --- |
| select a.quarter, a.Earnings, b.quarter, b.Earnings from  (SELECT quarter, SUM(earnings) AS 'Earnings'  FROM earningsfact   JOIN datedim USING(datekey)  GROUP BY quarter  ORDER BY quarter) a join  (SELECT quarter, SUM(earnings) AS 'Earnings'  FROM earningsfact   JOIN datedim USING(datekey)  GROUP BY quarter  ORDER BY quarter) b on a.quarter < b.quarter group by a.quarter, b.quarter order by 1,2; |

The purpose of this quarry is to compare the earnings for each quarter side by side. In order to do this we have joined two identical SELECT statements, which on their own will produce total earnings for each quarter. By joining them on less than and grouping by quarter the final result is each quarter’s earnings are compared to another quarter’s earnings once.