



Data Management and Visualization
Politecnico di Torino
Data warehousing in Oracle – Practice 2

Queries

- 6) Consider the year 2003. Separately for phone rate and month, analyze the (i) average daily income and the (ii) average income for number of calls.

```
SELECT DateMonth, phoneRateType, SUM(Price)/COUNT(DISTINCT DayDate),  
SUM(Price)/SUM(NumberOfCalls)  
FROM DWABD.Facts F, DWABD TimeDim T, DWABD.PhoneRate P  
WHERE F.Id_time = T.Id_time and F.Id_phoneRate = P.Id_phoneRate AND  
DateYear=2003 GROUP BY phoneRateType, DateMonth
```

- 7) Select the daily number of calls for each caller region and the daily number of calls for each caller province.

```
SELECT Region, Province, SUM(SUM(NumberOfCalls)) OVER (PARTITION BY  
Region)/COUNT(DISTINCT DayDate), SUM(NumberOfCalls)/COUNT(DISTINCT DayDate)  
FROM DWABD.Facts F, DWABD TimeDim T, DWABD.Location L  
WHERE F.Id_time = T.Id_time and F.id_location_caller = L.id_location  
GROUP BY Region, Province
```

- 8) Consider the year 2003. Separately for phone rate and month, analyze the (i) total income, (ii) the percentage of income with respect to the total revenue considering all the phone rates, (iii) the percentage of income with respect to the total revenue considering all the months.

```
SELECT DateMonth, phoneRateType, SUM(Price), SUM(Price)/SUM(SUM(Price)) OVER  
(PARTITION BY  
DateMonth), SUM(Price)/SUM(SUM(Price)) OVER (PARTITION BY phoneRateType) FROM  
DWABD.Facts F, DWABD TimeDim T, DWABD.PhoneRate P  
WHERE F.Id_time = T.Id_time and F.Id_phoneRate = P.Id_phoneRate AND  
DateYear=2003  
GROUP BY phoneRateType, DateMonth
```

- 9) For each caller province, analyze (i) the total number of calls and (ii) the percentage of number of calls with respect to the total number of calls considering the corresponding region.

```
SELECT Region, Province, SUM(NumberOfCalls),  
SUM(NumberOfCalls)/SUM(SUM(NumberOfCalls)) OVER  
(PARTITION BY Region)  
FROM DWABD.Facts F, DWABD.Location L  
WHERE F.id_location_caller = L.id_location  
GROUP BY Region, Province
```

10) For each receiver region, select the monthly number of calls and the cumulative monthly number of calls from the beginning of the year.

```
SELECT DateYear, DateMonth, SUM(NumberOfCalls) AS TOTCALLS,  
SUM(SUM(NumberOfCalls)) OVER (PARTITION BY DateYear, Region ORDER BY DateMonth  
ROWS  
UNBOUNDED PRECEDING) AS CUMULATIVECALLS_YEARS  
FROM DWABD.FACTS F, DWABD.TIMEDIM Te, DWABD.Location L  
WHERE F.ID_time=Te.ID_time and F.id_location_receiver = L.id_location  
GROUP BY DateMonth, DateYear, Region;
```