Queries

```
/*
  Query 1
*/
SELECT tipo_tariffa, anno, SUM(prezzo)
   FROM DWABD.Fatti F, DWABD.Tempo Te, DWABD.Tariffa Ta
WHERE F.id_tempo=Te.id_tempo
    AND F.id_tar=Ta.id_tar
GROUP BY CUBE(tipo_tariffa, anno);

/*
  Query 2
*/
SELECT mese,anno, SUM(chiamate) as TotChiamate, SUM(prezzo) as Incasso,
      RANK() over (ORDER BY SUM(prezzo) DESC) as RankIncasso
 FROM DWABD.Fatti F, DWABD.Tempo Te
WHERE F.id_tempo=Te.id_tempo
GROUP BY mese,anno;

/*
  Query 3
*/
SELECT mese, SUM(chiamate) as TotChiamate,
      RANK() over (ORDER BY SUM(chiamate) DESC) as RankChiamate
 FROM DWABD.Fatti F, DWABD.Tempo Te
WHERE F.id_tempo=Te.id_tempo
    AND anno=2003
GROUP BY mese;

/*
  Query 4
*/
SELECT data, SUM(prezzo),
      AVG(SUM(prezzo)) OVER (ORDER BY data RANGE BETWEEN INTERVAL '2' day preceding
and current row) as MediaUltimi3Giorni
 FROM DWABD.Fatti F, DWABD.Tempo Te
WHERE F.id_tempo=Te.id_tempo AND mese='7-2003'
GROUP BY data;

/*
  Query 5
*/
SELECT mese, anno, SUM(prezzo) as Incasso,
      SUM(SUM(prezzo)) over (PARTITION BY anno ORDER BY mese rows unbounded preceding)
as IncassoCumulativo
 FROM DWABD.Fatti F, DWABD.Tempo Te
WHERE F.id_tempo=Te.id_tempo
GROUP BY mese, anno;
```

Materialized views

The cardinality of all queries is at least one order of magnitude lower than those of the fact table. Hence, for each query it may be potentially useful to create a materialized view.

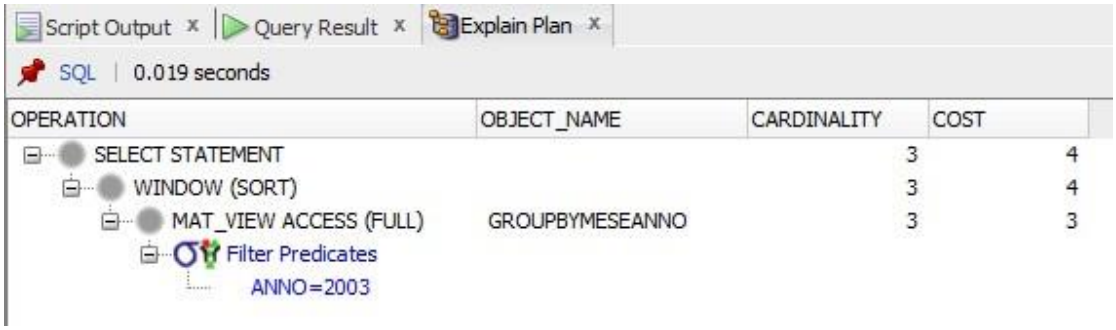
Queries 2, 3, and 5 are pretty similar. To answer these queries efficiently we can create a single materialized view, which is reported below.

```
create materialized view groupByMeseAnno
build immediate   refresh on demand   --
enable query rewrite as
select Mese, Anno, SUM(Chiamate) as NumSpese, SUM(Prezzo) as TotSpesa
from DWABD.FATTI F, DWABD.TEMPO T
 where F.id_tempo=T.id_tempo
group by Mese,Anno;
```

Queries using materialized view

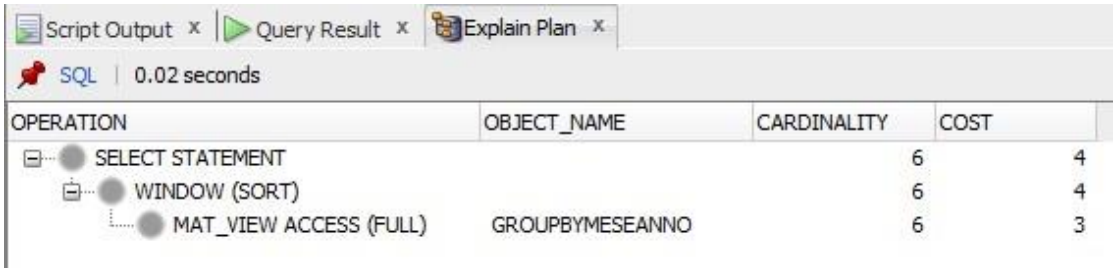
```
/*
Query 2
*/

SELECT mese, anno, NumSpese, TotSpesa,
RANK() over (ORDER BY TotSpesa DESC) as RankIncasso
FROM GROUPBYMESEANNO;

/*
Explain plan
*/
```

```
/*
Query 3
*/

SELECT mese, NumSpese,
RANK() over (ORDER BY NumSpese DESC) as RankChiamate
FROM GROUPBYMESEANNO
WHERE anno=2003;

/*
Explain plan
*/
```



OPERATION	OBJECT_NAME	CARDINALITY	COST
SELECT STATEMENT		3	4
WINDOW (SORT)		3	4
MAT_VIEW ACCESS (FULL)	GROUPBYMESEANNO	3	3
Filter Predicates			
ANNO=2003			

```
/*
Query 5
*/

SELECT mese, anno, TotSpesa,
SUM(TotSpesa) over (PARTITION BY anno ORDER BY mese rows unbounded
preceding) as IncassoCumulativo
FROM GROUPBYMESEANNO;

/*
Explain plan
*/
```



OPERATION	OBJECT_NAME	CARDINALITY	COST
SELECT STATEMENT		6	4
WINDOW (SORT)		6	4
MAT_VIEW ACCESS (FULL)	GROUPBYMESEANNO	6	3