


```

1. select country_iso_code, calendar_month_desc , channel_desc, sum(amount_sold) from
SH.COUNTRIES,SH.TIMES,SH.CHANNELS,SH.SALES,SH.CUSTOMERS
where sales.time_id=times.time_id
and sales.cust_id=customers.cust_id
and customers.country_id = countries.country_id
and sales.channel_id = channels.channel_id
and countries.country_iso_code in('US','GB')
and times.calendar_month_desc in ('2000-09','2000-10')
and channels.channel_desc in ('Internet','Direct Sales')
group by rollup(channels.channel_desc,times.calendar_month_desc,countries.country_iso_code);

```

 SQL | All Rows Fetched: 15 in 0.032 seconds

	COUNTRY_ISO_CODE	CALENDAR_MONTH_DESC	CHANNEL_DESC	SUM(AMOUNT_SOLD)
1	GB	2000-09	Internet	16569.36
2	US	2000-09	Internet	124223.75
3	(null)	2000-09	Internet	140793.11
4	GB	2000-10	Internet	14539.14
5	US	2000-10	Internet	137054.29
6	(null)	2000-10	Internet	151593.43
7	(null)	(null)	Internet	292386.54
8	GB	2000-09	Direct Sales	85222.92
9	US	2000-09	Direct Sales	638200.81
10	(null)	2000-09	Direct Sales	723423.73
11	GB	2000-10	Direct Sales	91925.43
12	US	2000-10	Direct Sales	682296.59
13	(null)	2000-10	Direct Sales	774222.02
14	(null)	(null)	Direct Sales	1497645.75
15	(null)	(null)	(null)	1790032.29

```

2. select country_iso_code, calendar_month_desc , channel_desc, sum(amount_sold) from
SH.COUNTRIES,SH.TIMES,SH.CHANNELS,SH.SALES,SH.CUSTOMERS
where sales.time_id=times.time_id
and sales.cust_id=customers.cust_id
and customers.country_id = countries.country_id
and sales.channel_id = channels.channel_id
and countries.country_iso_code in('US','GB')
and times.calendar_month_desc in ('2000-09','2000-10')
and channels.channel_desc in ('Internet','Direct Sales')
group by cube(channels.channel_desc,times.calendar_month_desc,countries.country_iso_code);

```

Script Output x Query Result x			
SQL All Rows Fetched: 27 in 0.032 seconds			
COUNTRY_ISO_CODE	CALENDAR_MONTH_DESC	CHANNEL_DESC	SUM(AMOUNT_SOLD)
1 (null)	(null)	(null)	1790032.29
2 GB	(null)	(null)	208256.85
3 US	(null)	(null)	1581775.44
4 (null)	2000-09	(null)	864216.84
5 GB	2000-09	(null)	101792.28
6 US	2000-09	(null)	762424.56
7 (null)	2000-10	(null)	925815.45
8 GB	2000-10	(null)	106464.57
9 US	2000-10	(null)	819350.88
10 (null)	(null)	Internet	292386.54
11 GB	(null)	Internet	31108.5
12 US	(null)	Internet	261278.04
13 (null)	2000-09	Internet	140793.11

3. select country_iso_code, channel_desc, sum(amount_sold) from
SH.COUNTRIES,SH.TIMES,SH.CHANNELS,SH.SALES,SH.CUSTOMERS
where sales.time_id=times.time_id
and sales.cust_id=customers.cust_id
and customers.country_id = countries.country_id
and sales.channel_id = channels.channel_id
and countries.country_iso_code in('US','FR')
and times.calendar_month_desc = '2000-09'
and channels.channel_desc in ('Internet','Direct Sales')
group by (channels.channel_desc,countries.country_iso_code);

SQL All Rows Fetched: 4 in 0.02 seconds			
COUNTRY_ISO_CODE	CHANNEL_DESC	SUM(AMOUNT_SOLD)	
1 FR	Direct Sales	61202.26	
2 US	Direct Sales	638200.81	
3 US	Internet	124223.75	
4 FR	Internet	9596.86	

4. select country_iso_code, calendar_month_desc , channel_desc, sum(amount_sold) from
SH.COUNTRIES,SH.TIMES,SH.CHANNELS,SH.SALES,SH.CUSTOMERS
where sales.time_id=times.time_id
and sales.cust_id=customers.cust_id
and customers.country_id = countries.country_id
and sales.channel_id = channels.channel_id
and countries.country_iso_code in('US','GB')
and times.calendar_month_desc in ('2000-09','2000-10')
and channels.channel_desc in ('Internet','Direct Sales')
group by channels.channel_desc, rollup(times.calendar_month_desc,countries.country_iso_code);

SQL All Rows Fetched: 14 in 0.032 seconds			
COUNTRY_ISO_CODE	CALENDAR_MONTH_DESC	CHANNEL_DESC	SUM(AMOUNT_SOLD)
1 GB	2000-09	Internet	16569.36
2 US	2000-09	Internet	124223.75
3 (null)	2000-09	Internet	140793.11
4 GB	2000-10	Internet	14539.14
5 US	2000-10	Internet	137054.29
6 (null)	2000-10	Internet	151593.43
7 (null)	(null)	Internet	292386.54
8 GB	2000-09	Direct Sales	85222.92
9 US	2000-09	Direct Sales	638200.81
10 (null)	2000-09	Direct Sales	723423.73
11 GB	2000-10	Direct Sales	91925.43
12 US	2000-10	Direct Sales	682296.59
13 (null)	2000-10	Direct Sales	774222.02
14 (null)	(null)	Direct Sales	1497645.75

```

5. select country_iso_code, calendar_month_desc , channel_desc, sum(amount_sold)
from SH.COUNTRIES,SH.TIMES,SH.CHANNELS,SH.SALES,SH.CUSTOMERS
where sales.time_id = times.time_id
and sales.cust_id=customers.cust_id
and customers.country_id = countries.country_id
and sales.channel_id = channels.channel_id
and countries.country_iso_code in('US','GB')
and times.calendar_month_desc in ('2000-09','2000-10')
and channels.channel_desc in ('Internet','Direct Sales')
group by channels.channel_desc,
cube(times.calendar_month_desc,countries.country_iso_code);

```

The screenshot shows the Oracle SQL Developer interface. The main window displays a query in the SQL Worksheet:

```
--5th query
select country_iso_code, calendar_month_desc , channel_desc, sum(amount_sold)
from SH.COUNTRIES,SH.TIMES,SH.CHANNELS,SH.SALES,SH.CUSTOMERS
where sales.time_id = times.time_id
and sales.cust_id=customers.cust_id
and customers.country_id = countries.country_id
and sales.channel_id = channels.channel_id
and countries.country_iso_code in('US','GB')
and times.calendar_month_desc in ('2000-09','2000-10')
and channels.channel_desc in ('Internet','Direct Sales')
group by channels.channel_desc,
cube(times.calendar_month_desc,countries.country_iso_code);
```

The Query Result window shows 18 rows of data:

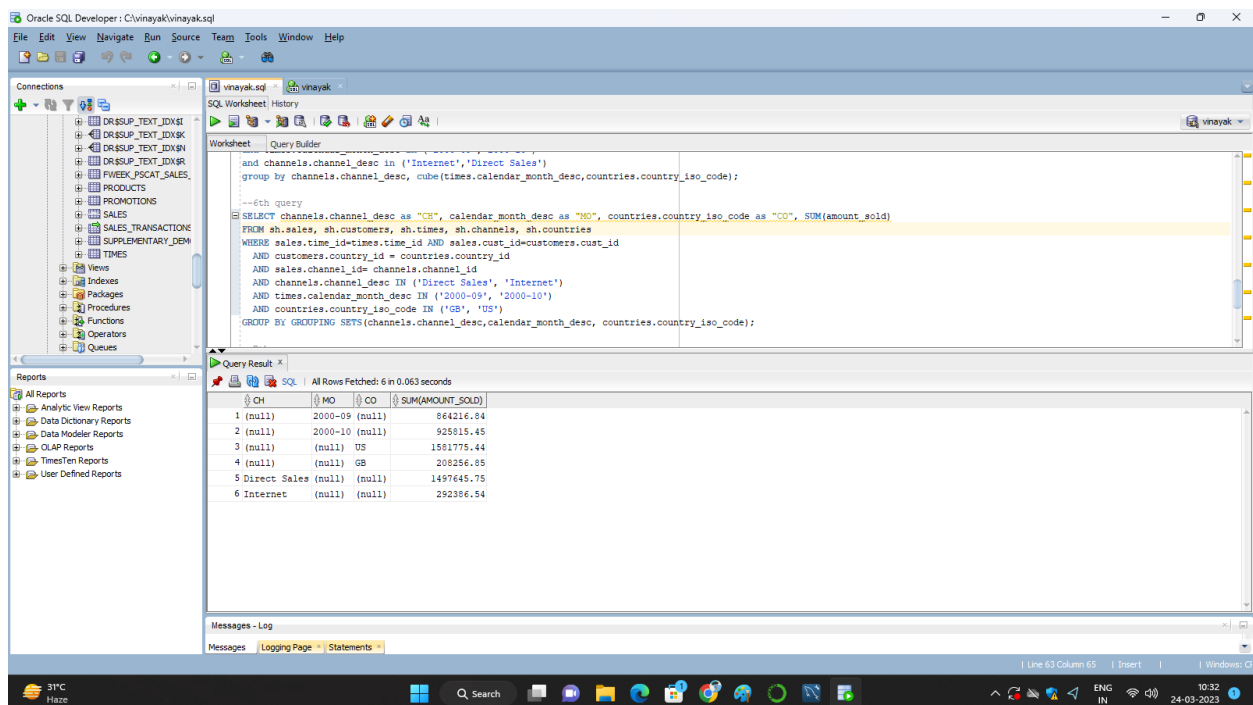
COUNTRY_ISO_CODE	CALENDAR_MONTH_DESC	CHANNEL_DESC	SUM(AMOUNT_SOLD)
1 (null)	(null)	Internet	292386.54
2 GB	(null)	Internet	31108.5
3 US	(null)	Internet	261278.04
4 (null)	2000-09	Internet	140793.11
5 GB	2000-09	Internet	16569.36
6 US	2000-09	Internet	124223.75
7 (null)	2000-10	Internet	151593.43
8 GB	2000-10	Internet	14539.14
9 US	2000-10	Internet	137054.29
10 (null)	(null)	Direct Sales	1497645.75
11 GB	(null)	Direct Sales	177148.35
12 US	(null)	Direct Sales	1320497.4
13 (null)	2000-09	Direct Sales	723423.73
14 GB	2000-09	Direct Sales	85222.92
15 US	2000-09	Direct Sales	638200.81
16 (null)	2000-10	Direct Sales	774222.02
17 GB	2000-10	Direct Sales	91925.43
18 US	2000-10	Direct Sales	682296.59

The interface also shows a Connections pane on the left with a tree view of database objects, and a Messages - Log pane at the bottom.

```

6.SELECT channels.channel_desc as "CH", calendar_month_desc as "MO",
countries.country_iso_code as "CO", SUM(amount_sold)
FROM sh.sales, sh.customers, sh.times, sh.channels, sh.countries
WHERE sales.time_id=times.time_id AND sales.cust_id=customers.cust_id
AND customers.country_id = countries.country_id
AND sales.channel_id= channels.channel_id
AND channels.channel_desc IN ('Direct Sales', 'Internet')
AND times.calendar_month_desc IN ('2000-09', '2000-10')
AND countries.country_iso_code IN ('GB', 'US')
GROUP BY GROUPING SETS(channels.channel_desc,calendar_month_desc,
countries.country_iso_code);

```



The screenshot shows the Oracle SQL Developer interface. The main window displays a SQL query in the 'Worksheet' tab. The query is identical to the one provided in the first block. Below the query, the 'Query Result' tab shows the execution results. The results are displayed in a table with 6 rows and 5 columns: CH, MO, CO, and SUM(AMOUNT_SOLD). The data is grouped by channel_desc, calendar_month_desc, and country_iso_code.

CH	MO	CO	SUM(AMOUNT_SOLD)
(null)	2000-09	(null)	864216.84
(null)	2000-10	(null)	925815.45
(null)	(null)	US	1581775.44
(null)	(null)	GB	208256.85
Direct Sales	(null)	(null)	1497645.75
Internet	(null)	(null)	292386.54

```

7. SELECT channels.channel_desc, calendar_month_desc, countries.country_iso_code,
SUM(amount_sold)
FROM sh.sales, sh.customers, sh.times, sh.channels, sh.countries
WHERE sales.time_id=times.time_id AND sales.cust_id=customers.cust_id
AND customers.country_id = countries.country_id
AND sales.channel_id= channels.channel_id
AND channels.channel_desc IN ('Direct Sales', 'Internet')
AND times.calendar_month_desc IN ('2000-09', '2000-10')
AND countries.country_iso_code IN ('US', 'GB')
GROUP BY GROUPING SETS(
(channels.channel_desc ,calendar_month_desc, countries.country_iso_code),
(channels.channel_desc,countries.country_iso_code),

```

(calendar_month_desc, countries.country_iso_code));

The screenshot displays the Oracle SQL Developer interface. The main window shows a SQL query in the Worksheet tab, which is a 7th query. The query is as follows:

```
--7th query
SELECT channels.channel_desc, calendar_month_desc, countries.country_iso_code, SUM(amount_sold)
FROM sh.sales, sh.customers, sh.times, sh.channels, sh.countries
WHERE sales.time_id=times.time_id AND sales.cust_id=customers.cust_id
AND customers.country_id = countries.country_id
AND sales.channel_id= channels.channel_id
AND channels.channel_desc IN ('Direct Sales', 'Internet')
```

The Query Result tab shows the results of the query, with 16 rows fetched in 0.04 seconds. The results are as follows:

CHANNEL_DESC	CALENDAR_MONTH_DESC	COUNTRY_ISO_CODE	SUM(AMOUNT_SOLD)
1 Internet	2000-09	GB	16569.36
2 Direct Sales	2000-09	GB	85222.92
3 Internet	2000-09	US	124223.75
4 Direct Sales	2000-09	US	638200.81
5 Internet	2000-10	GB	14539.14
6 Direct Sales	2000-10	GB	91925.43
7 Internet	2000-10	US	137054.29
8 Direct Sales	2000-10	US	682296.59
9 (null)	2000-09	GB	101792.28
10 (null)	2000-09	US	762424.56
11 (null)	2000-10	GB	106464.57
12 (null)	2000-10	US	819350.88
13 Direct Sales	(null)	GB	177148.35
14 Internet	(null)	GB	31108.5
15 Direct Sales	(null)	US	1320497.4
16 Internet	(null)	US	261278.04

The interface also shows a Connections pane on the left with a tree view of the database schema, including tables like DR\$SUP_TEXT_IDX\$K, DR\$SUP_TEXT_IDX\$N, DR\$SUP_TEXT_IDX\$R, FIVEEEK_PSCAT_SALES, PRODUCTS, PROMOTIONS, SALES, SALES_TRANSACTIONS, SUPPLEMENTARY_DEM, and TIMES. The Reports pane at the bottom left shows a list of reports, including All Reports, Analytic View Reports, Data Dictionary Reports, Data Modeler Reports, OLAP Reports, TimesTen Reports, and User Defined Reports. The Messages - Log pane at the bottom right shows the status of the query execution.