

```

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

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. On the left, the Connections tree shows a connection named 'vinayak'. The central area has a 'Worksheet' tab open with the following SQL query:

```
--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' tab displays the fetched 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 | 774222.02 |
| 12 US | (null) | Direct Sales | 177140.35 |
| 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 | 91925.43 |
| 17 GB | 2000-10 | Direct Sales | 682296.59 |
| 18 US | 2000-10 | Direct Sales | 774222.02 |

The bottom status bar shows the date as 24-03-2023.

```

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 with the following details:

- Connections:** A tree view of database objects including ORASUP_TEXT_IDX\$ and FIVEK_PSCAT_SALES.
- SQL Worksheet:** The main workspace contains the following query:


```

and channels.channel_desc in ('Internet','Direct Sales')
group by channels.channel_desc, cube(times.calendar_month_desc,countries.country_iso_code);

--6th query
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);
      
```
- Query Result:** The results pane displays the following data:

| CH | MO | CO | SUM(AMOUNT SOLD) |
|------------------------------|----------------|--------|------------------|
| 1 (null) | 2000-09 (null) | (null) | 864216.84 |
| 2 (null) | 2000-10 (null) | (null) | 925815.45 |
| 3 (null) | (null) US | | 1581775.44 |
| 4 (null) | (null) GB | | 208256.85 |
| 5 Direct Sales (null) (null) | | | 1497645.75 |
| 6 Internet (null) (null) | | | 292386.54 |
- Messages - Log:** The log shows the execution details, including the time (24-03-2023 10:32) and user (vinayak).

```

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 shows the Oracle SQL Developer interface. The left sidebar displays the database schema with tables like CHANNELS, CUSTOMERS, SALES, and TIMES. The central workspace contains a SQL Worksheet tab with the following query:

```
--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 output of the query:

| 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 | 682286.59 |
| 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 bottom status bar shows system information: 31°C Haze, ENG IN, 10:32, 24-03-2023.