Nama : Reinaldhy Suzeta Purba

NIM : 201402064

Matkul : Enterprise Development Software
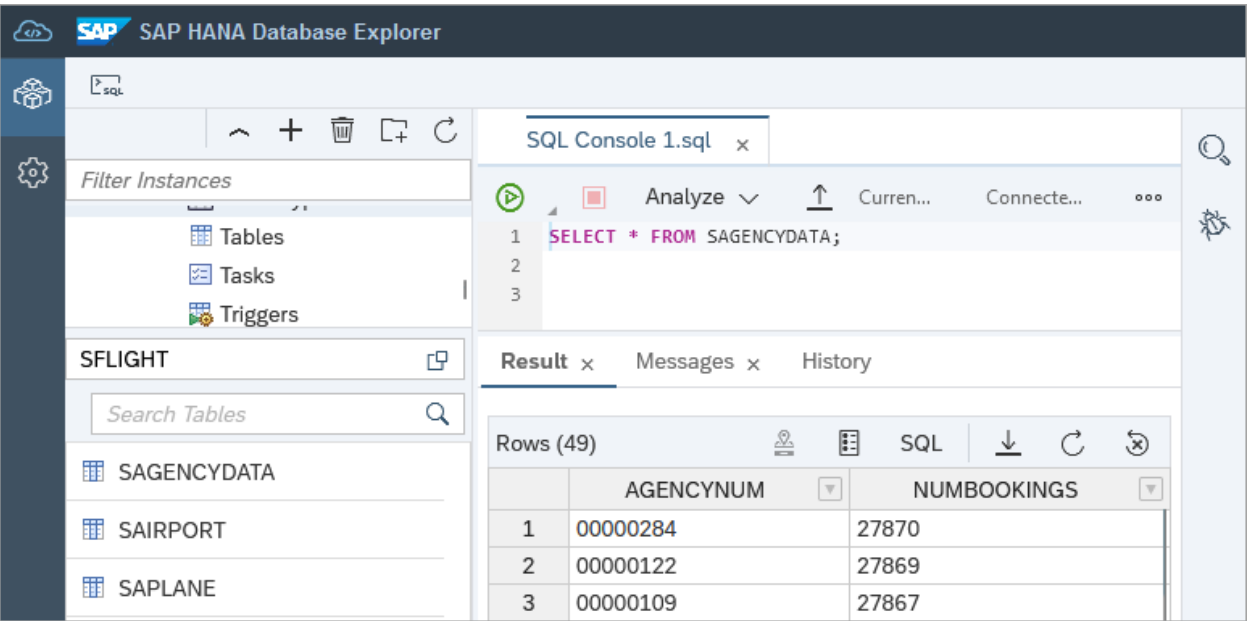
Getting Started with SAP HANA Cloud

5. Modul 5 : Query Data on SAP HANA Cloud

    - Creating a New Table - SAGENCYDATA

In order to determine the popularity of travel agents, a new table, SAGENCYDATA, is being created by combining data from the SBOOK and STRAVELAG tables. Use this query :
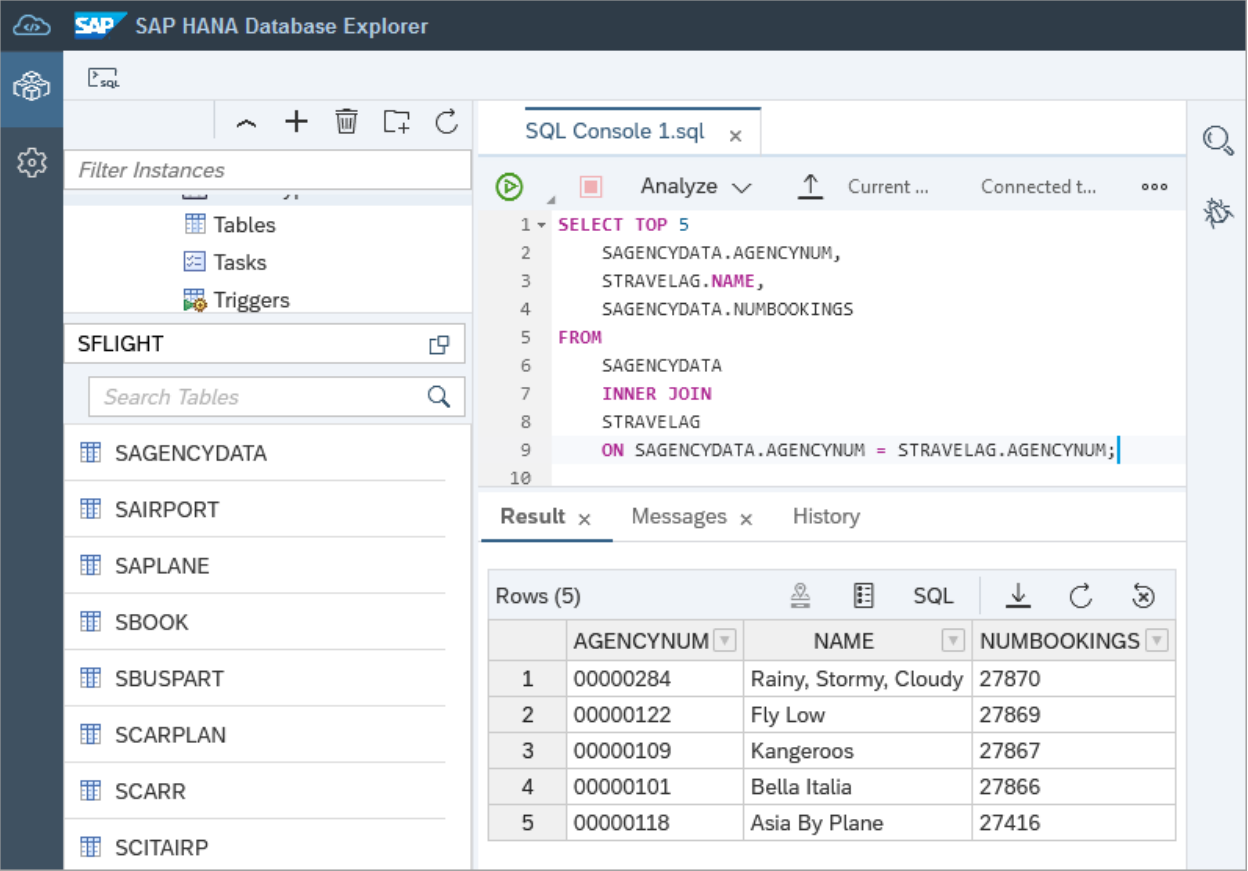
```
CREATE     TABLE     SAGENCYDATA     as     (select     SBOOK.AGENCYNUM,
count(SBOOK.AGENCYNUM)  as  NUMBOOKINGS  FROM  SBOOK,  STRAVELAG  WHERE
SBOOK.AGENCYNUM=STRAVELAG.AGENCYNUM  group  by  SBOOK.AGENCYNUM  ORDER  BY
count(SBOOK.AGENCYNUM) desc);
```


    - Finding Top 5 Agencies

Join the tables STRAVELAG and SAGENCYDATA based on the column AGENCYNUM and extract the top 5 agencies from the result. This will give you the list of agency numbers, names, and the number of bookings for the top 5 agencies. Use this query :

```
SELECT TOP 5 SAGENCYDATA.AGENCYNUM, STRAVELAG.NAME,SAGENCYDATA.NUMBOOKINGS
FROM  SAGENCYDATA  INNER  JOIN  STRAVELAG  on  SAGENCYDATA.AGENCYNUM  =
STRAVELAG.AGENCYNUM;
```

- Extracting Booking Days Data

Since Alex also wants to know on which days of the week the top 5 travel agencies make most bookings, we need to use a few more queries.

To find the top booking days, we will first create two new tables:

- STOPAGENCY: name, agency number, and count of the bookings made by top 5 agencies

- SAGBOOKDAYS: details on the number of bookings made per day for each of the agencies

First create the STOPAGENCY table by storing the result of the previous query in a new table. Run this query in your console:

```
CREATE    TABLE    STOPAGENCY    AS    (SELECT    TOP    5    SAGENCYDATA.AGENCYNUM,
STRAVELAG.NAME,SAGENCYDATA.NUMBOOKINGS    FROM    SAGENCYDATA    INNER    JOIN
STRAVELAG ON SAGENCYDATA.AGENCYNUM = STRAVELAG.AGENCYNUM);
```

To view all contents of this table, just copy and paste the following query into the SQL console and run it:

```
SELECT * FROM STOPAGENCY;
```

Next, create the table SAGBOOKDAYS to store the daily bookings for each of the agencies. Use the following query:

```
CREATE TABLE SAGBOOKDAYS AS (SELECT AGENCYNUM, dayname(ORDER_DATE) as
ORDERDAY, count(dayname(ORDER_DATE)) AS DAYCOUNT FROM SBOOK GROUP BY
AGENCYNUM, dayname(ORDER_DATE))
```

To view all contents of this new table, you can again use the SELECT * FROM query:

```
SELECT * FROM SAGBOOKDAYS;
```

Now that you have created the 2 tables, join these tables based on the agency number (column AGENCYNUM). You also need to extract only the day with maximum number of bookings for each of the top 5 agencies. For this, use the following nested queries:

```
SELECT SAGBOOKDAYS.AGENCYNUM, STOPAGENCY.NAME, SAGBOOKDAYS.ORDERDAY,
SAGBOOKDAYS.DAYCOUNT FROM SAGBOOKDAYS INNER JOIN STOPAGENCY ON
SAGBOOKDAYS.AGENCYNUM=STOPAGENCY.AGENCYNUM WHERE SAGBOOKDAYS.DAYCOUNT IN
(SELECT max(DAYCOUNT) FROM SAGBOOKDAYS GROUP BY AGENCYNUM)
```

Now you can see that the most bookings for the top 5 agencies have been done on Thursdays.