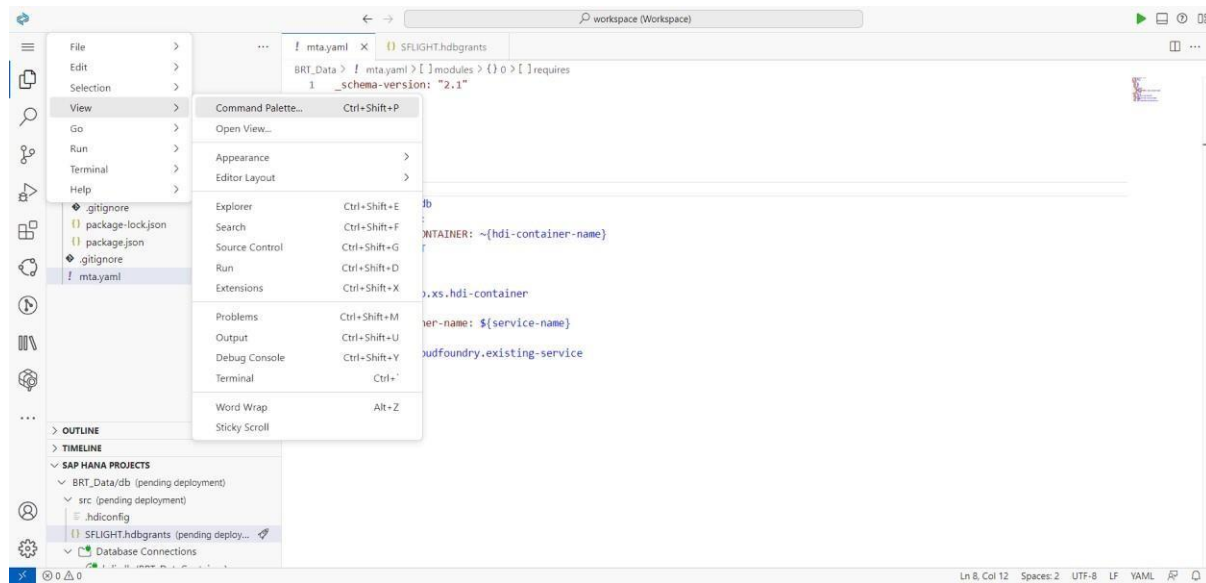


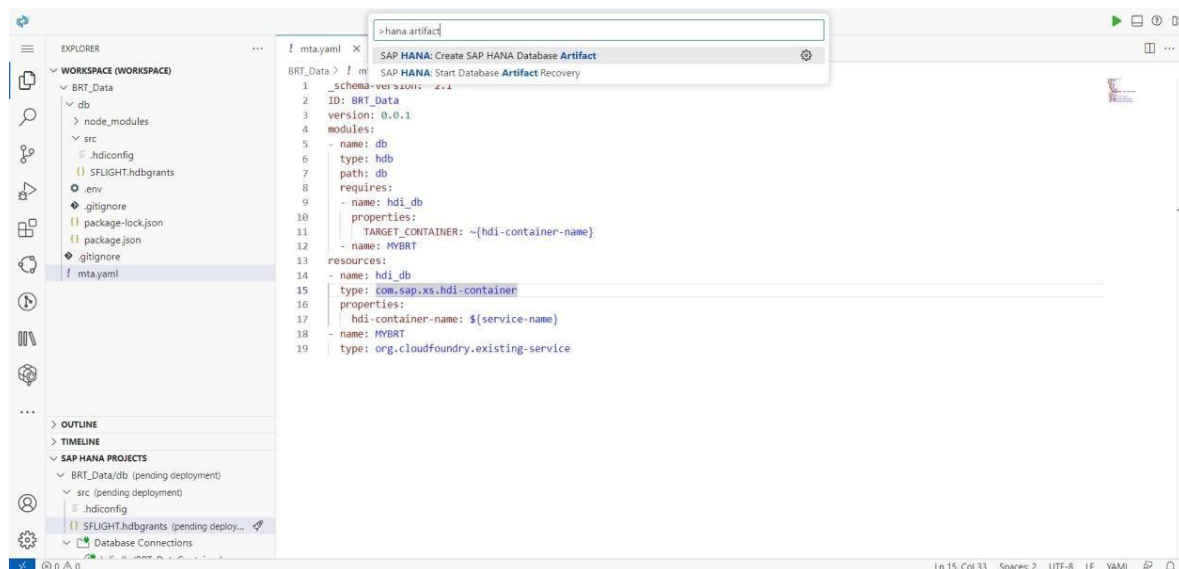
Nama : Riski Hartanto Saragih
NIM : 201402112
Mata Kuliah : UTS Enterprise Development Software

7. Create calculation view

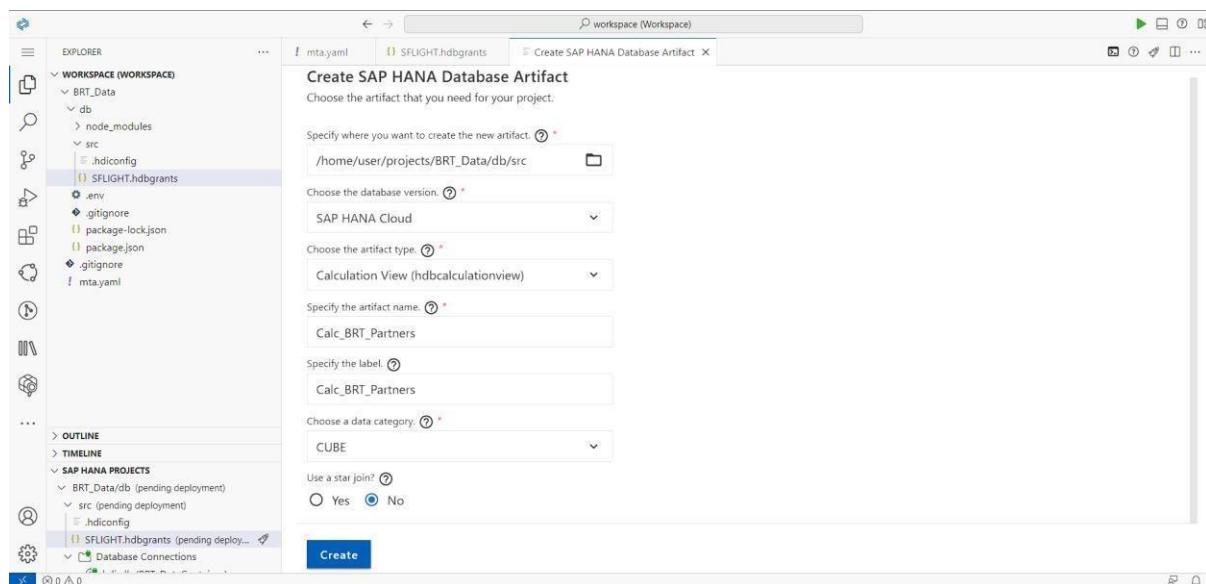
- Pilih file > View > Command Palette (Ctrl+Shift+P)



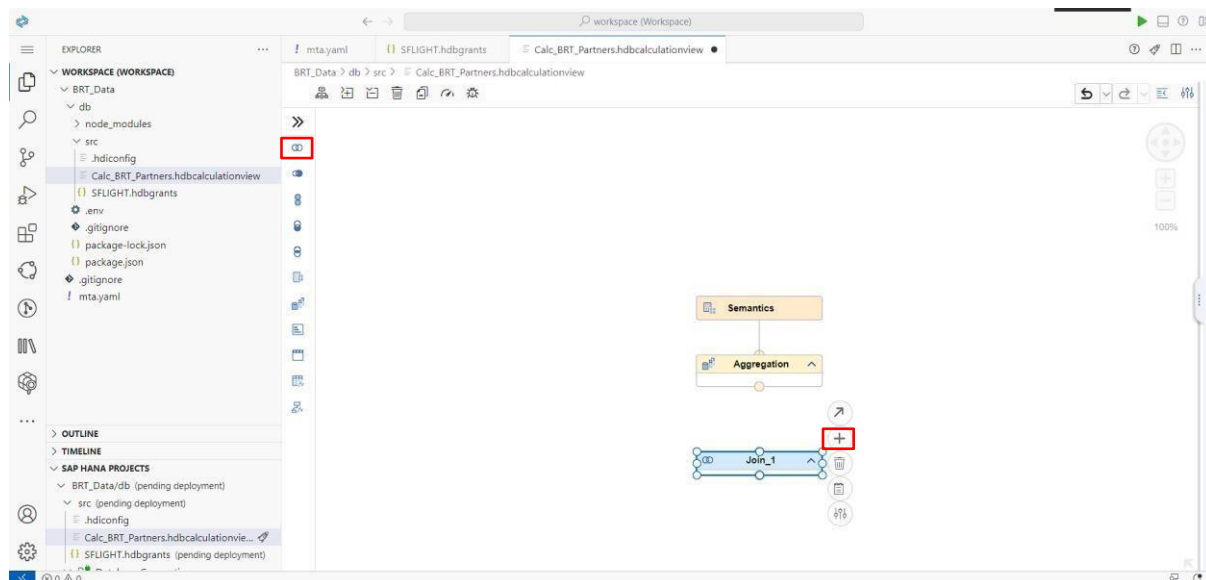
- Search “SAP HANA: Create SAP HANA Database Artifact”



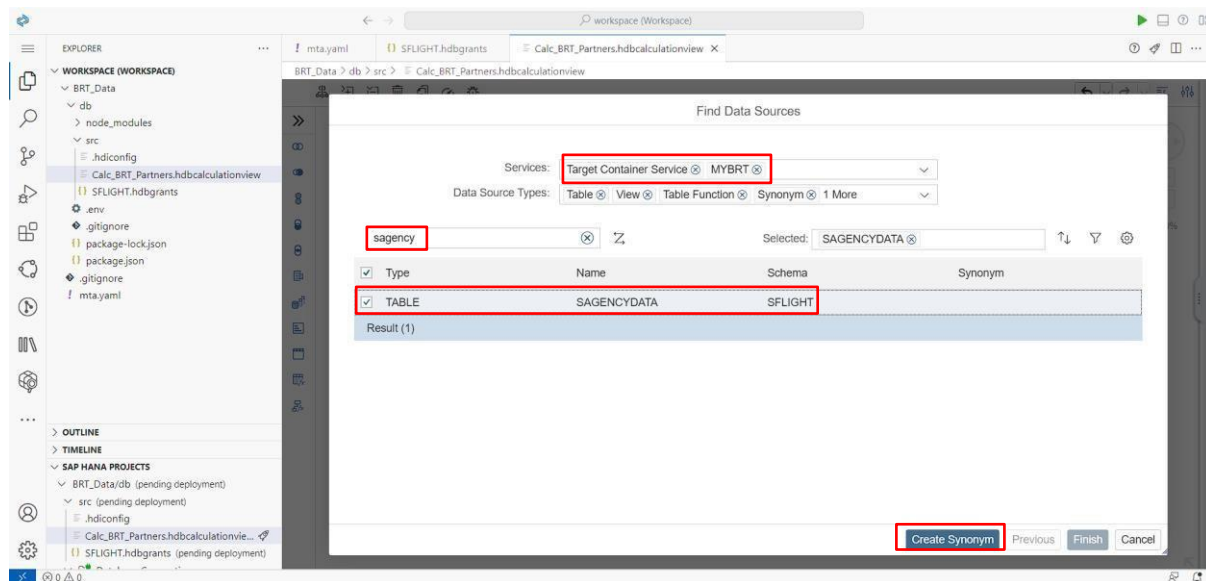
- Isi bagian - bagian yang diperlukan, lalu klik "creat



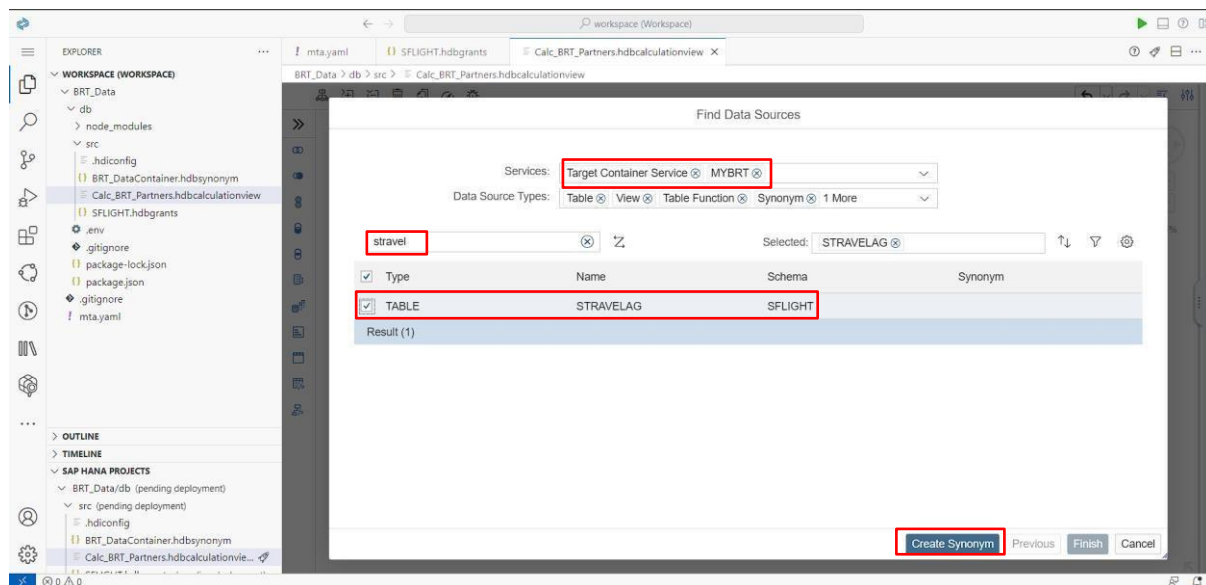
- Create "Join" module, lalu klik ikon "+"



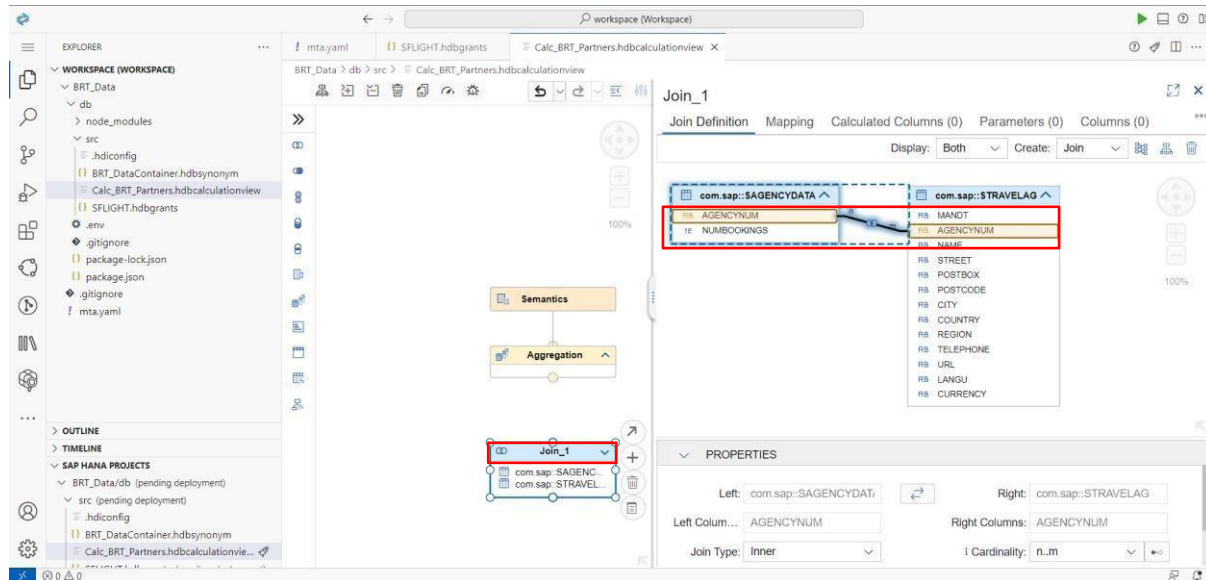
- Create synonym untuk SAGENCYDATA, kemudian klik “Finish”



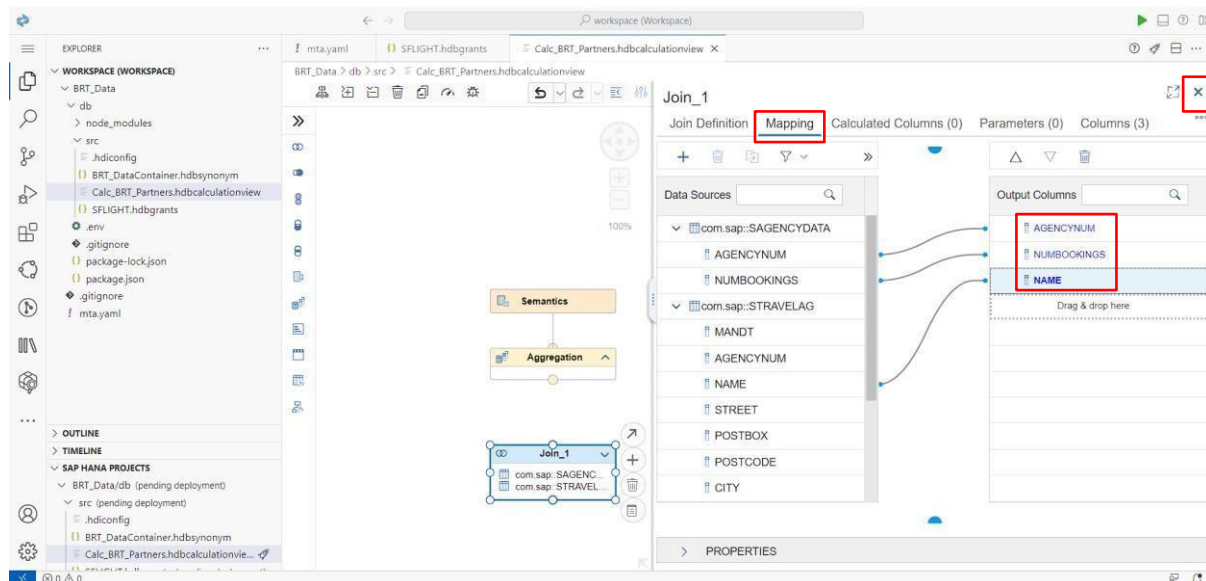
- Create synonym untuk STRAVELAG, kemudian klik “Finish”



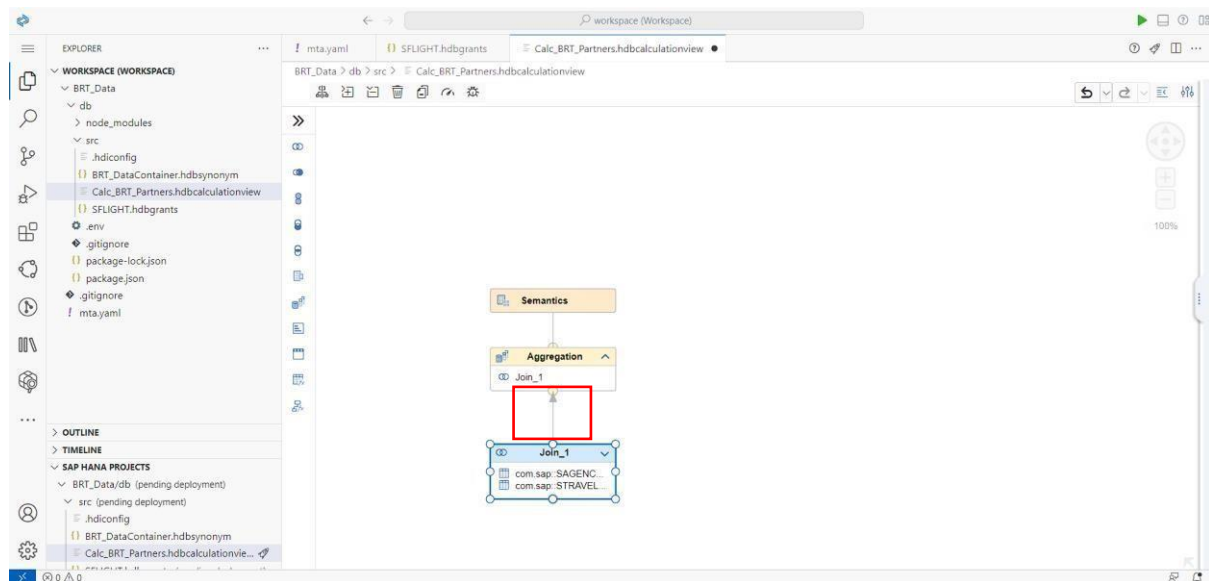
- Klik 2 kali pada “Join_1”, kemudian klik dan tahan “AGENCYNUM” dari “SAGENCYDATA”, kemudian letakkan ke “AGENCYNUM” of “STRAVELAG”



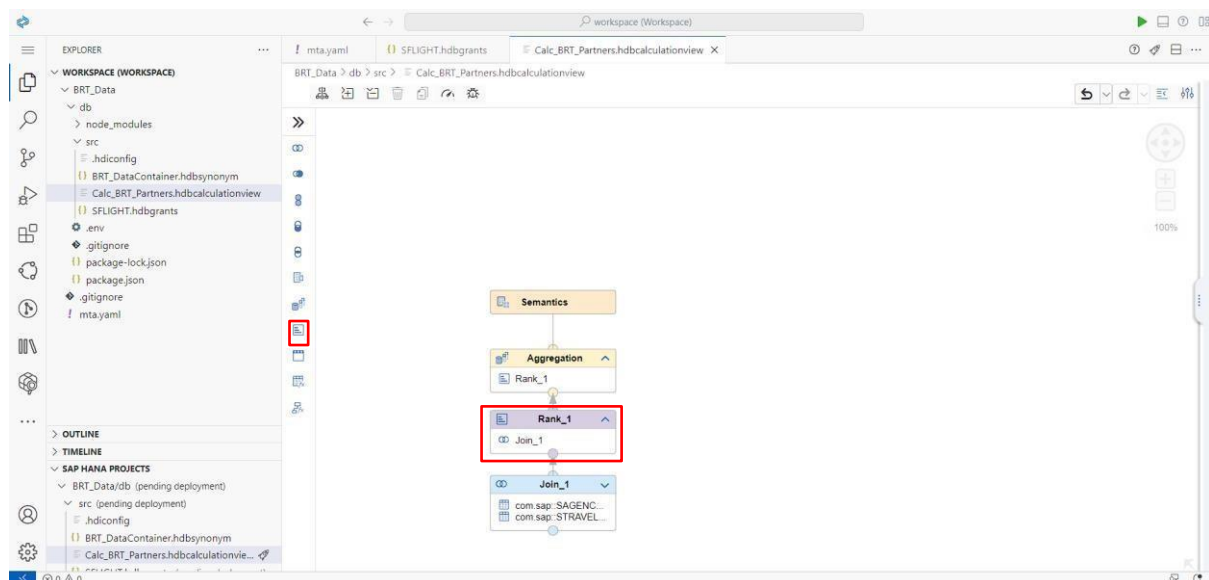
- Klik pada “Mapping”, pilih dan drag “AGENCYNUM”, “NUMBOOKINGS”, dan “NAME” ke sebelah kanan. Setelah itu tutup jendela join



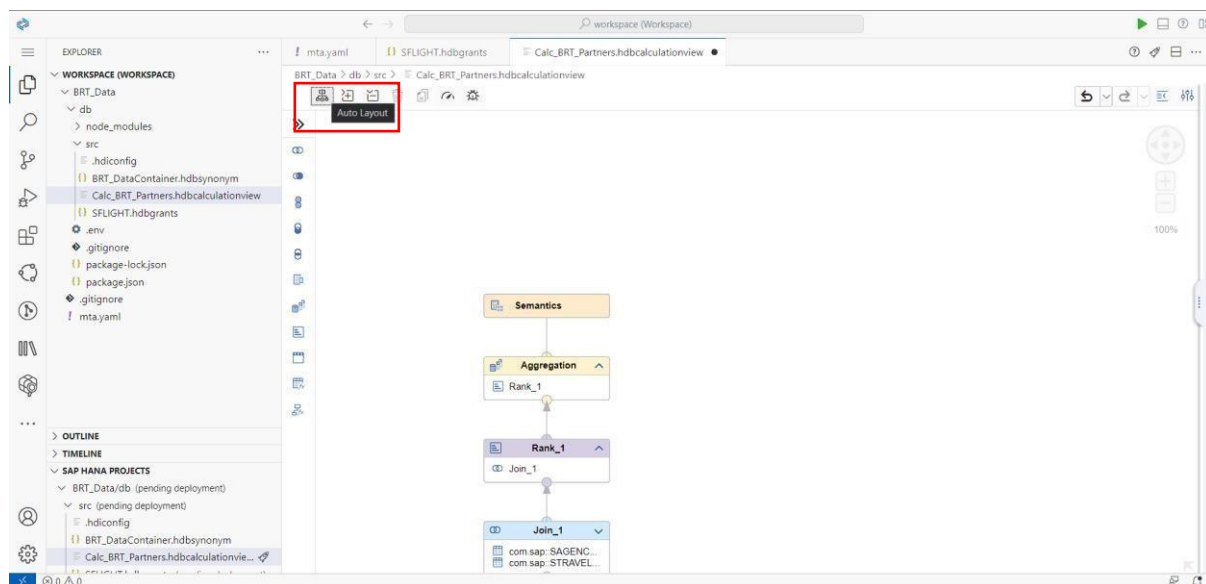
- Connect “Join_1” ke “Aggregation” menggunakan arrow icon



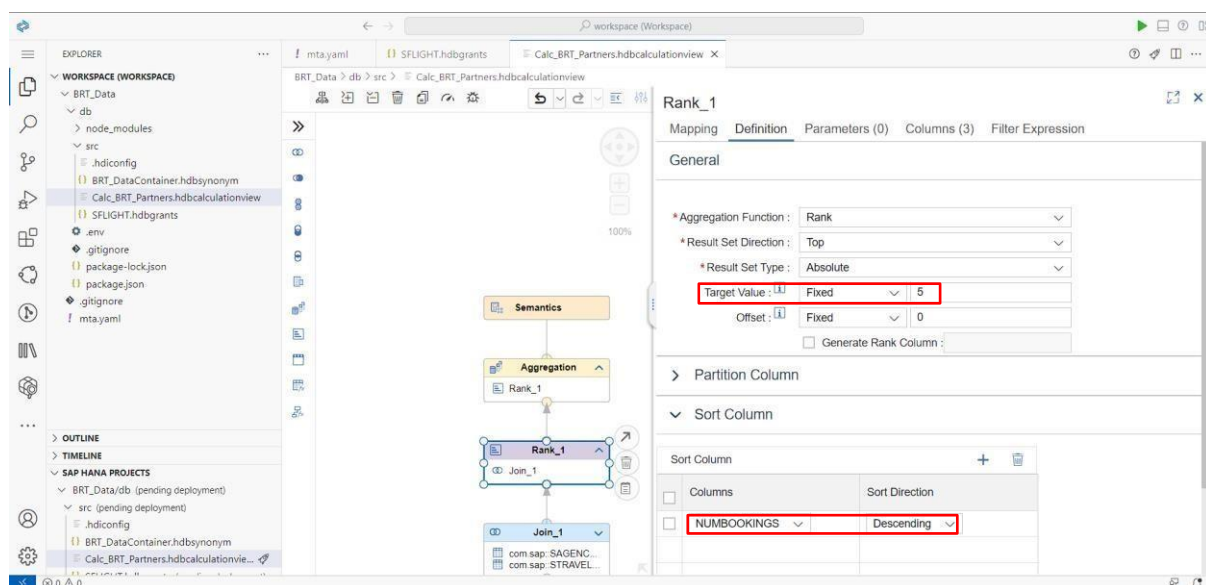
- Tambahkan rank node diantara 2 nodes



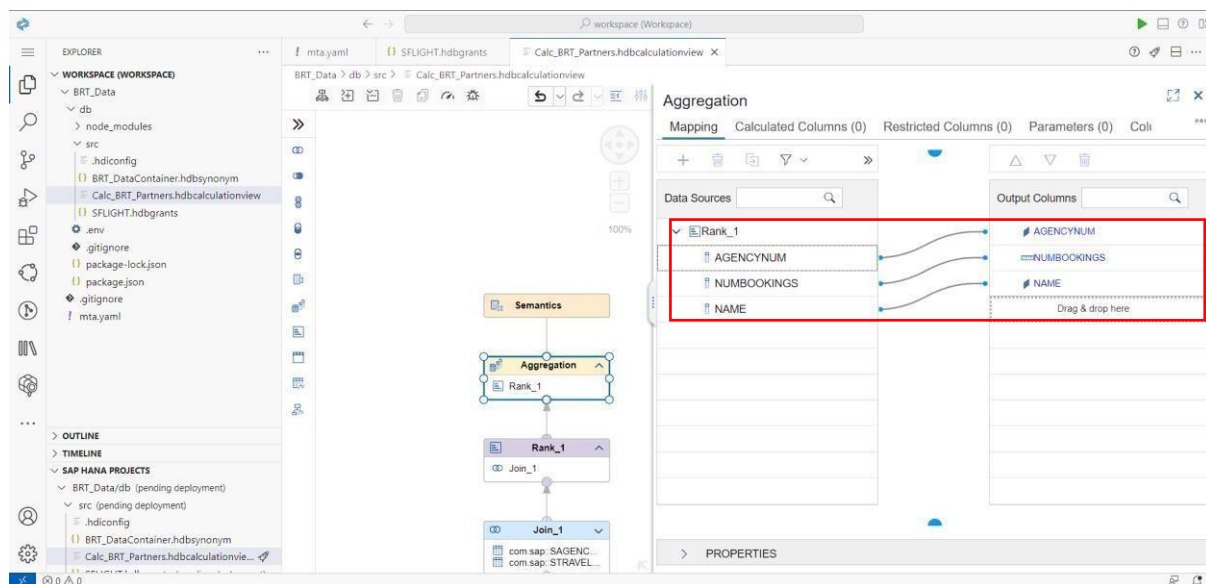
- Klik auto layout untuk mengatur ulang canvas



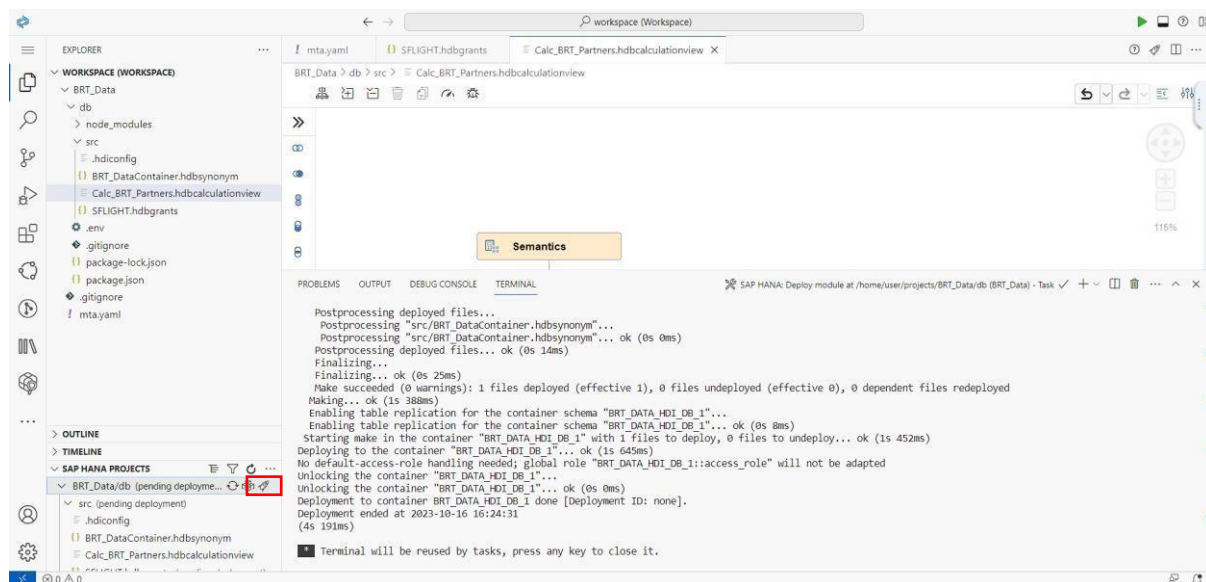
- Atur “Rank_1” dengan meng-klik 2 kali



- Atur pemetaan “Aggregation” dengan meng-klik 2 kali



- Terapkan projek



- Membuka HDI Container

The image shows two screenshots from SAP HANA Studio illustrating the process of opening an HDI container.

Top Screenshot: Deployment and Container Opening

The left pane shows the **WORKSPACE (WORKSPACE)** tree with the following structure:

- BRT_Data (WORKSPACE)
 - db
 - node_modules
 - src
 - .hdcconfig
 - BRT_DataContainer.hdbsynonym
 - Calc_BRT_Partners.hdbcalculationview
 - SFLIGHT.hdbgrants
 - env
 - .gitignore
 - package-lock.json
 - package.json
 - .gitignore
 - mta.yaml

The **Terminal** pane shows the following output:

```
Postprocessing deployed files...
Postprocessing "src/BRT_DataContainer.hdbsynonym"...
Postprocessing "src/BRT_DataContainer.hdbsynonym"... ok (0s 0ms)
Postprocessing deployed files... ok (0s 14ms)
Finalizing...
Finalizing... ok (0s 25ms)
Make succeeded (0 warnings): 1 files deployed (effective 1), 0 files undeployed (effective 0), 0 dependent files redeployed
Making... ok (1s 388ms)
Enabling table replication for the container schema "BRT_DATA_HDI_DB_1"...
Enabling table replication for the container schema "BRT_DATA_HDI_DB_1"... ok (0s 8ms)
Starting make in the container "BRT_DATA_HDI_DB_1" with 1 files to deploy, 0 files to undeploy... ok (1s 452ms)
Deploying to the container "BRT_DATA_HDI_DB_1"... ok (1s 645ms)
No default-access-role handling needed; global role "BRT_DATA_HDI_DB_1::access_role" will not be adapted
Unlocking the container "BRT_DATA_HDI_DB_1"...
Unlocking the container "BRT_DATA_HDI_DB_1"... ok (0s 0ms)
Unlocking the container "BRT_DATA_HDI_DB_1" done [Deployment ID: none].
Deployment ended at 2023-10-16 16:24:31
(4s 191ms)
Terminal will be reused by tasks, press any key to close it.
```

The **Column View Name** pane shows the following table:

Column View Name	Schema	Type
Calc_BRT_Partners	BRT_DATA_HDI_DB_1	CALCULATED

The **Columns** pane shows the following table:

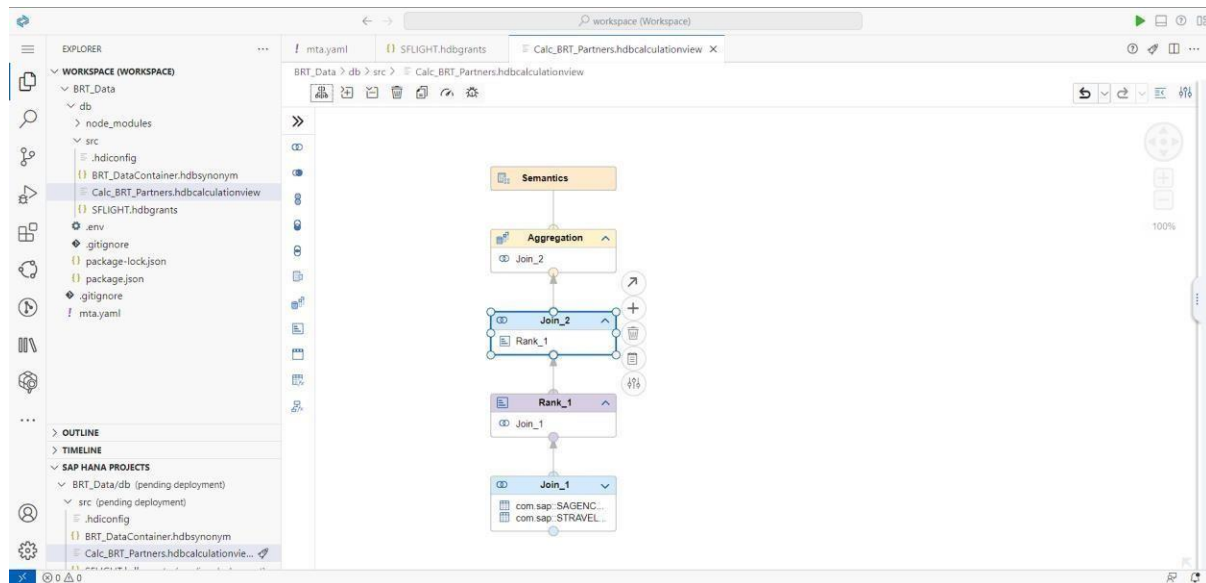
View Column	SQL Data Type	Not Null	Default	Comment
1 AGENCYNUM	NVARCHAR(8)		NULL	AGENCYNUM
2 NAME	NVARCHAR(25)		NULL	NAME
3 NUMBOOKINGS	BIGINT		NULL	NUMBOOKINGS

Bottom Screenshot: Raw Data View

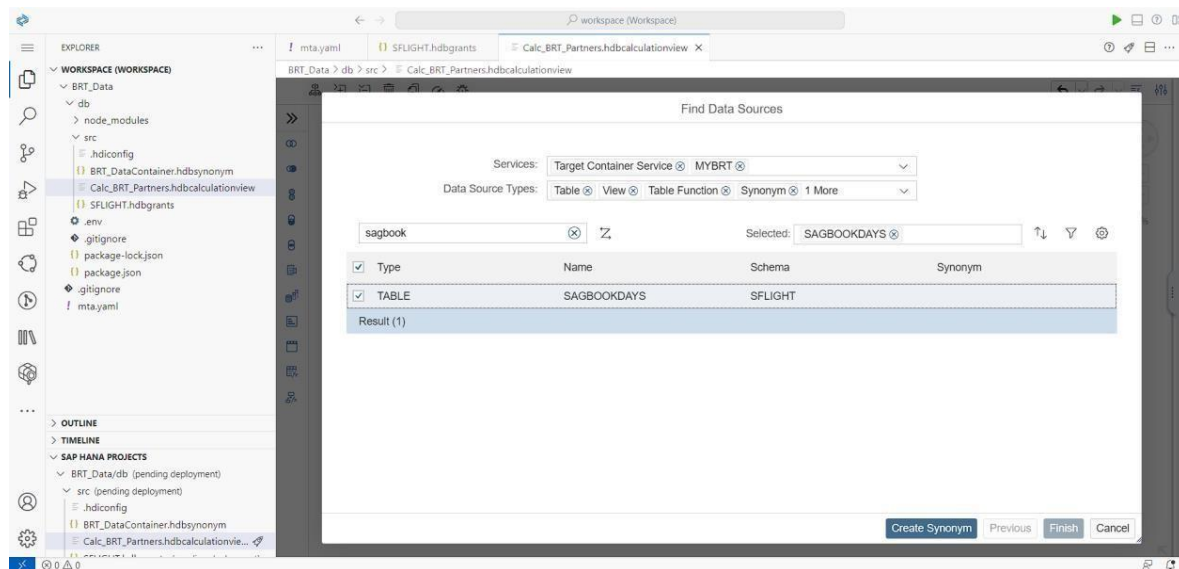
The **Analysis** pane shows the **Raw Data** view of the **Calc_BRT_Partners** calculation view. The table displays 5 rows of data:

Rows (5)	AGENCYNUM	NAME	NUMBOOKINGS
1	00000284	Rainy, Stormy, Cloudy	27870
2	00000122	Fly Low	27869
3	00000101	Bella Italia	27866
4	00000109	Kangeroos	27867
5	00000118	Asia By Plane	27416

- Buat Join Node yang baru



- Tambahkan data source “SAGBOOKDAYS” Ke “Join_2”



- Mengatur Join Definition and Mapping of both

The image displays two screenshots of the SAP HANA Studio interface, illustrating the configuration of a join definition and its mapping.

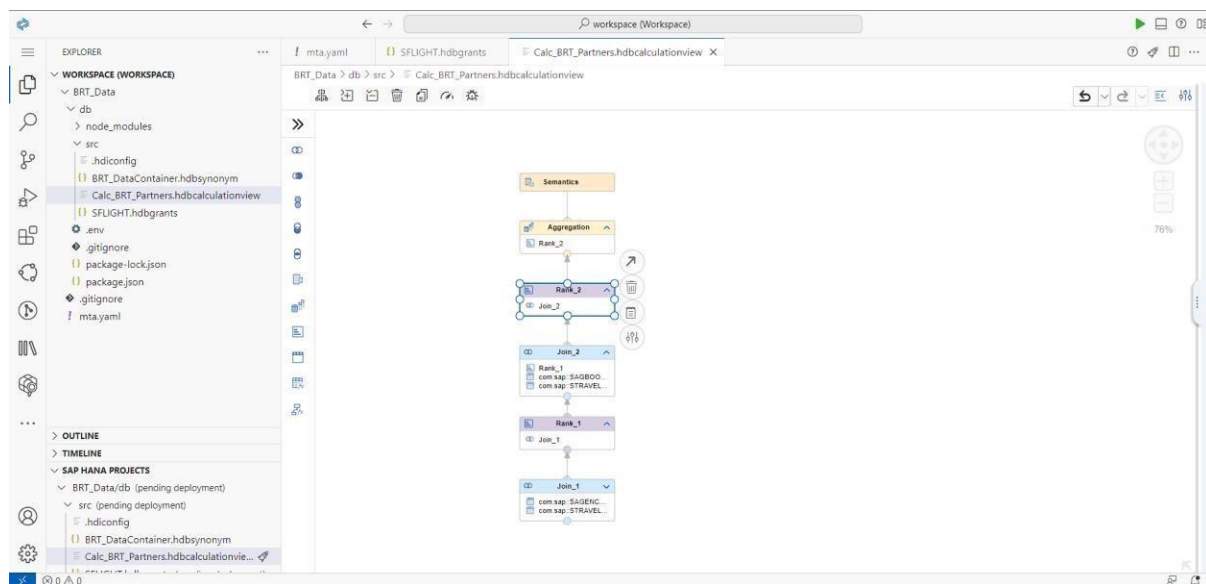
Top Screenshot: Join Definition

- The **Join Definition** tab is active for **Join_2**.
- The **Left** data source is **Rank_1** (containing columns: AGENCYNUM, NUMBOOKINGS, NAME).
- The **Right** data source is **com.sap::SAGBOOKDAY** (containing columns: AGENCYNUM, ORDERDAY, DAYCOUNT).
- The **Join Type** is set to **Inner**.
- The **Cardinality** is set to **n:m**.

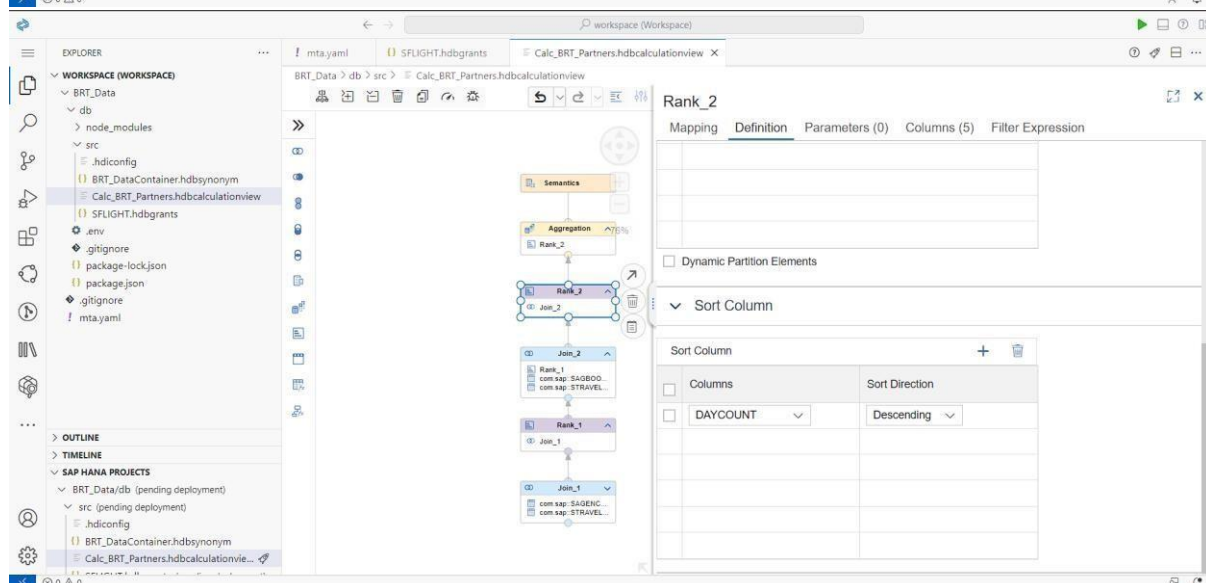
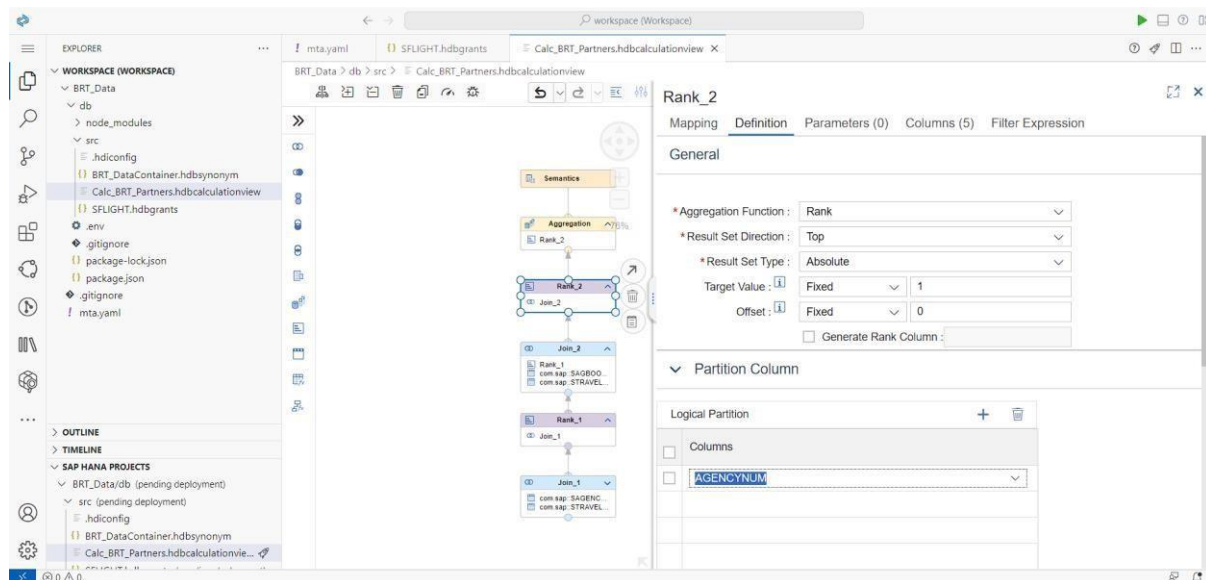
Bottom Screenshot: Mapping

- The **Mapping** tab is active for **Join_2**.
- The **Data Sources** list includes **Rank_1** and **com.sap::SAGBOOKDAY**.
- The **Output Columns** list shows the mapped columns: **AGENCYNUM**, **NUMBOOKINGS**, **NAME**, **ORDERDAY**, and **DAYCOUNT**.

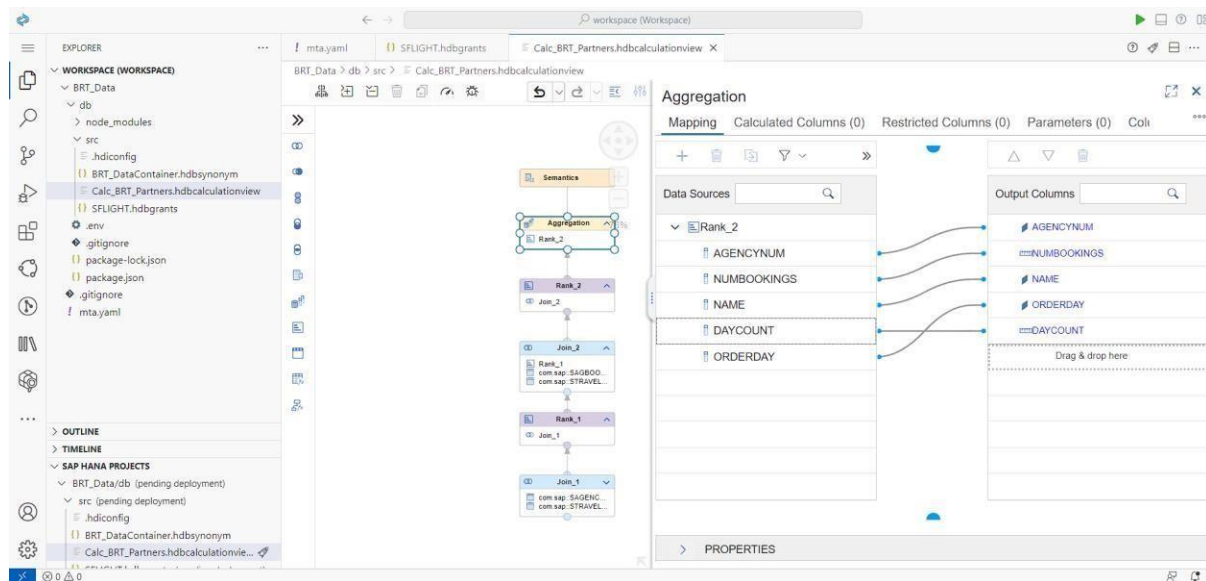
- Add “Rank_2”



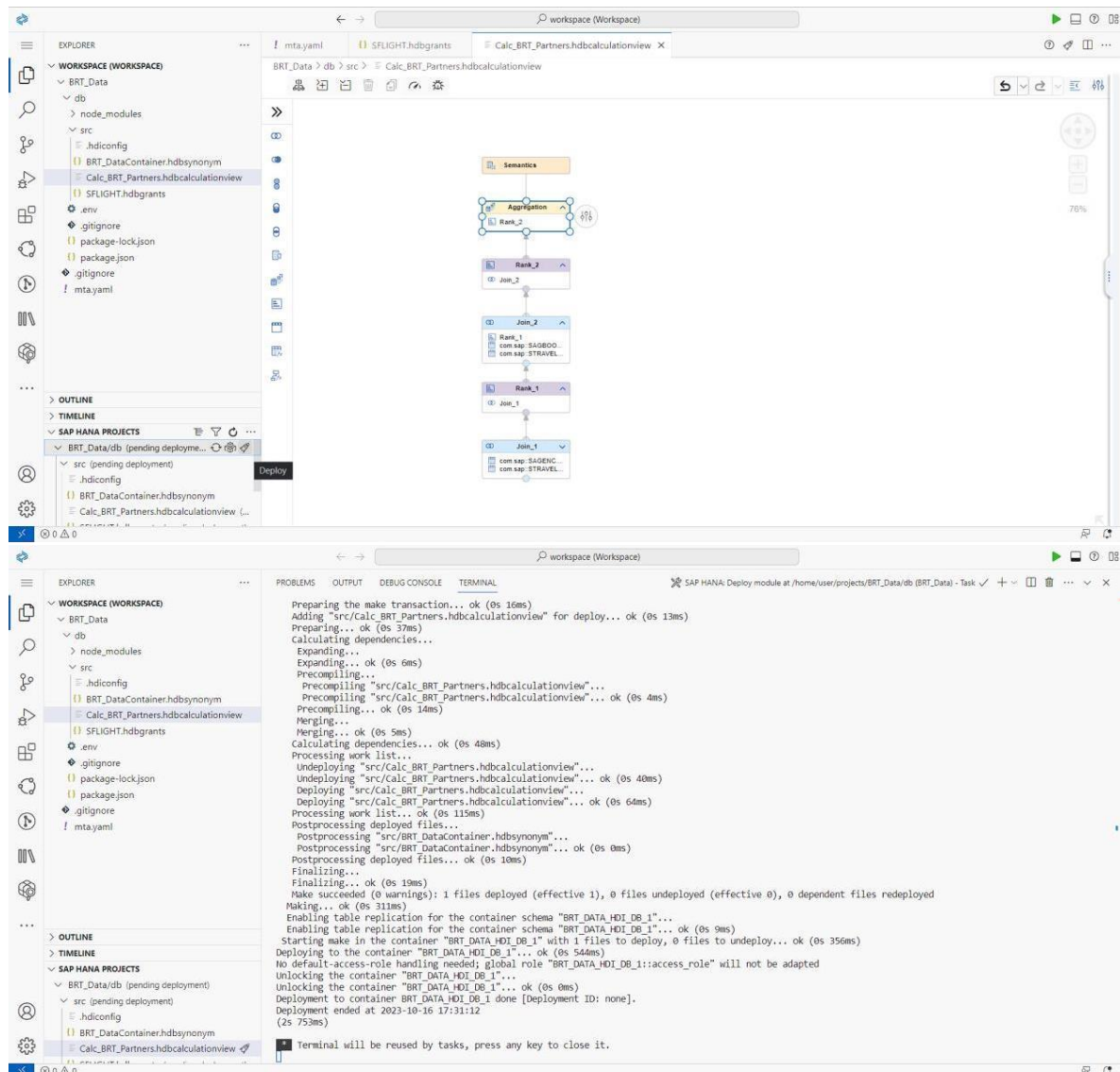
- Set Up “Rank_2”



- Ubah Aggregation mapping



- Pindahkan project



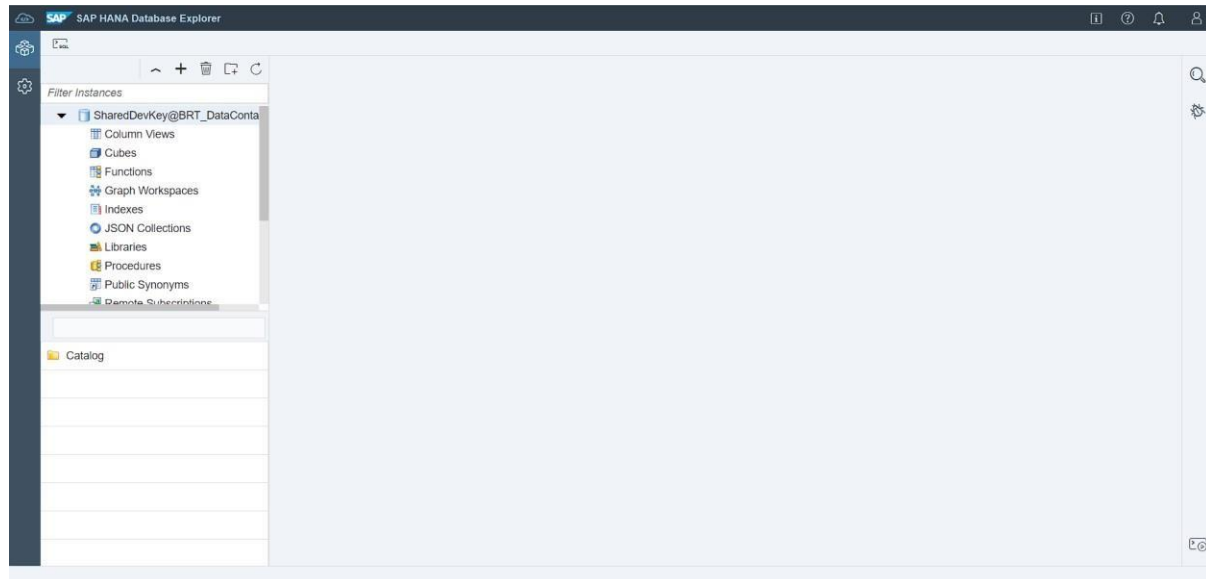
- Periksa output dengan HDI Container

The screenshot displays the SAP HANA Database Explorer interface. The top pane shows a workspace with several HDI containers, including 'BRT_Data', 'db', 'node_modules', 'src', 'JdiConfig', 'BRT_DataContainer.hdbsynonym', 'Calc_BRT_Partners.hdbcalculationview', 'SFLIGHT.hdbgrants', 'env', 'gitignore', 'package-lock.json', 'package.json', 'gitignore', and 'mta.yaml'. The bottom pane shows the 'Calc_BRT_Partners' table view, which displays the raw data of the 'Calc_BRT_Partners.hdbcalculationview'. The table has 5 rows and 6 columns: AGENCYNUM, NAME, ORDERDAY, NUMBOOKINGS, and DAYCOUNT. The data is as follows:

Rows (5)	AGENCYNUM	NAME	ORDERDAY	NUMBOOKINGS	DAYCOUNT
1	00000122	Fly Low	THURSDAY	27869	4037
2	00000118	Asia By Plane	TUESDAY	27416	4004
3	00000101	Bella Italia	THURSDAY	27866	4038
4	00000284	Rainy, Stormy, Cloudy	MONDAY	27870	4108
5	00000109	Kangeroos	THURSDAY	27867	4095

8. Share a Subset of Your Data Securely

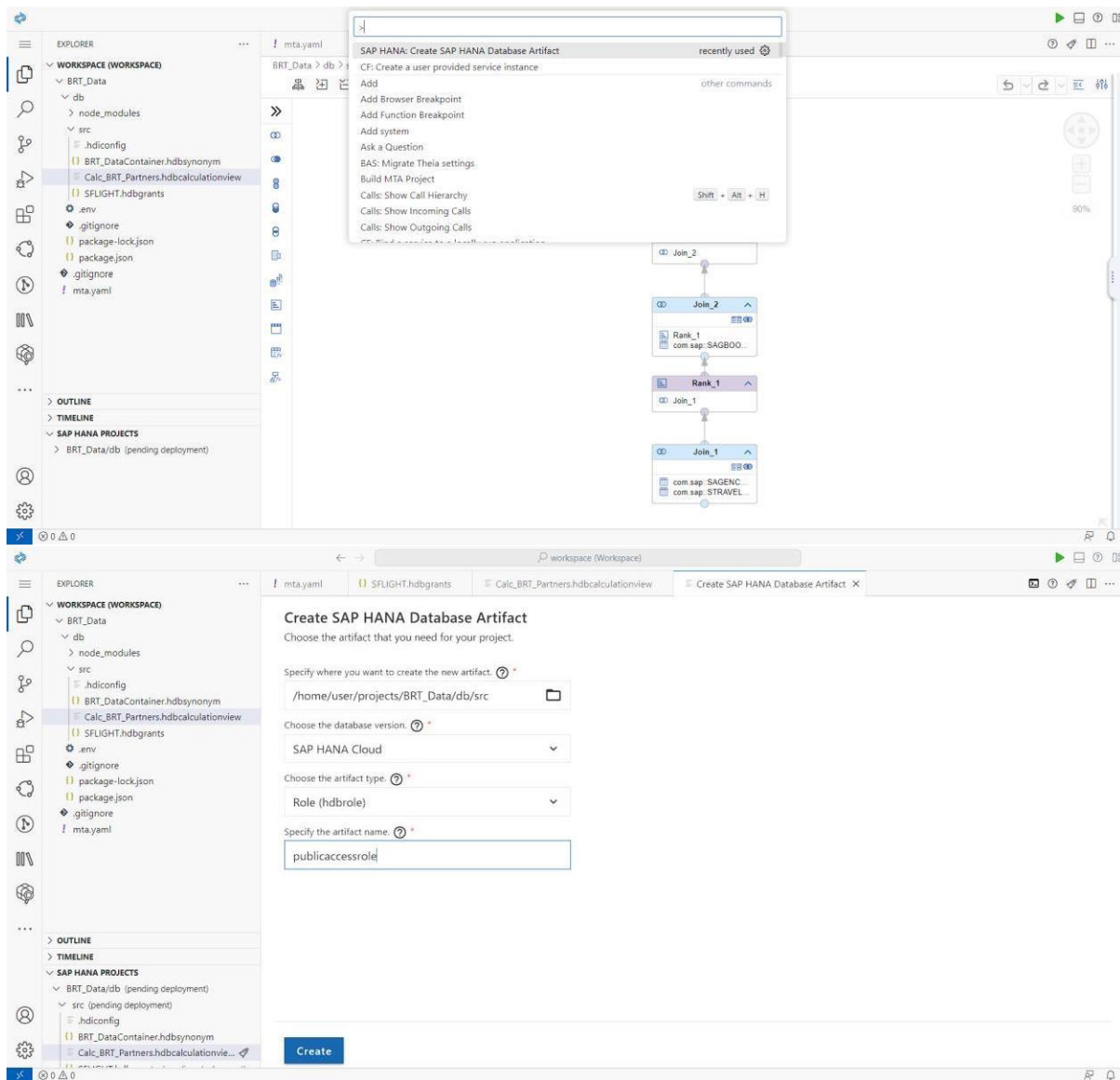
- Buka SAP HANA Database Explorer



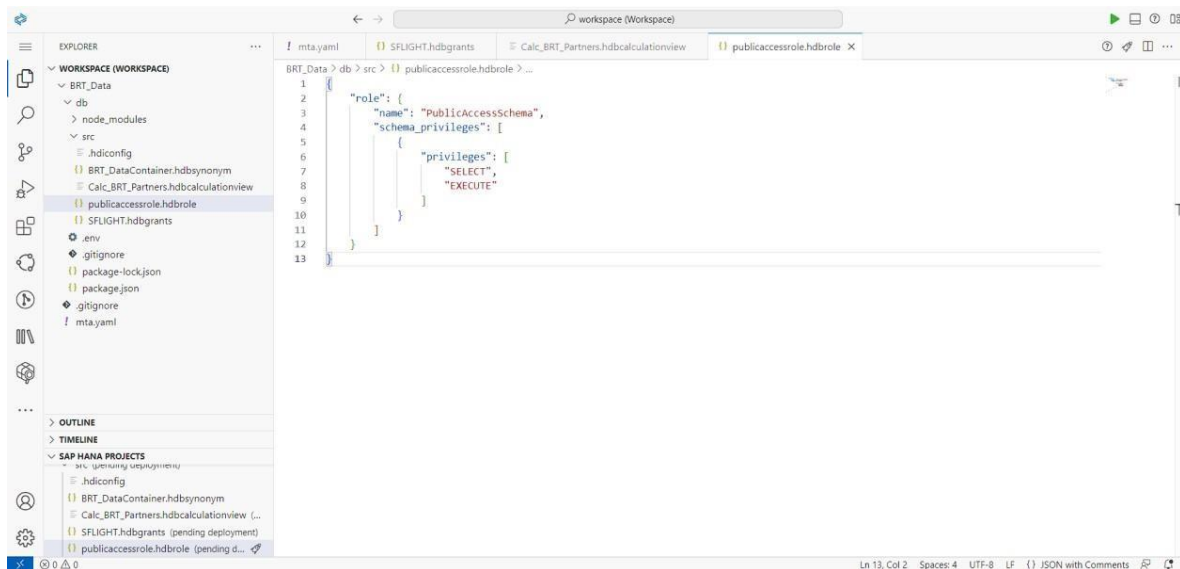
- Hasilkan pernyataan SELECT



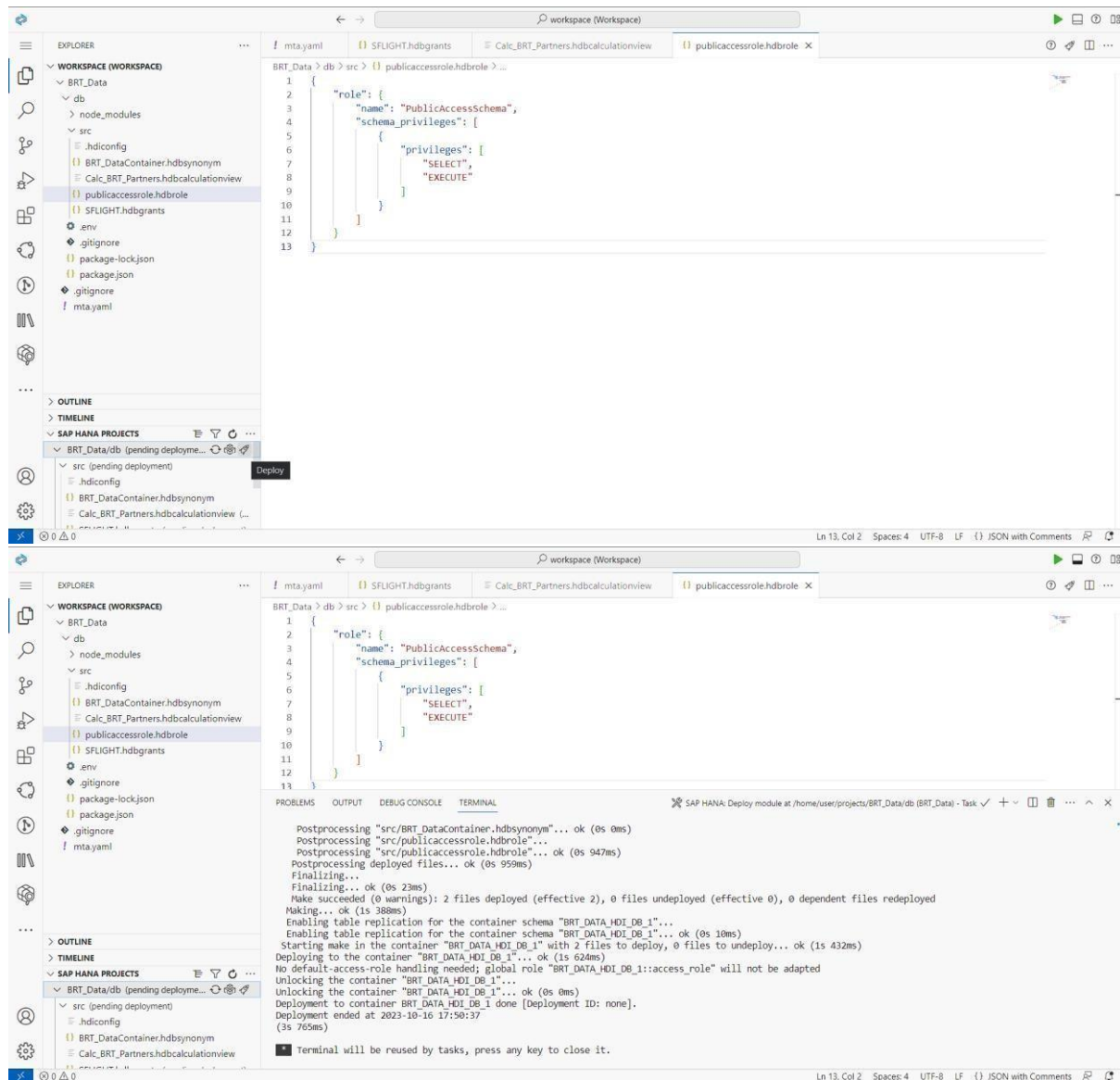
- Membuat SAP HANA Database Artifact



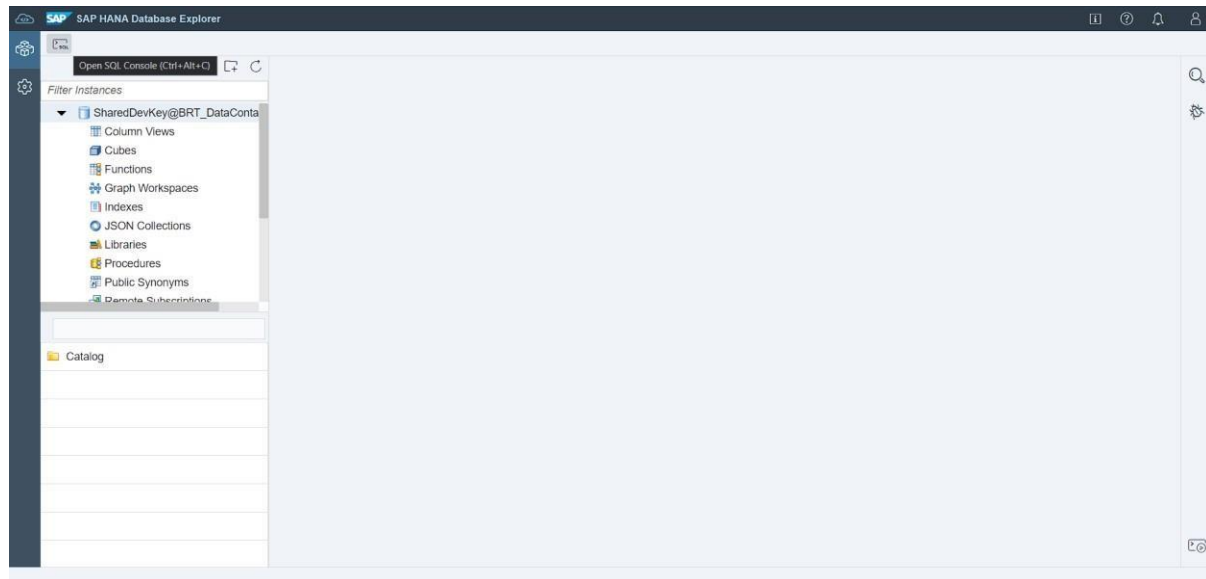
- Mengatur public access role



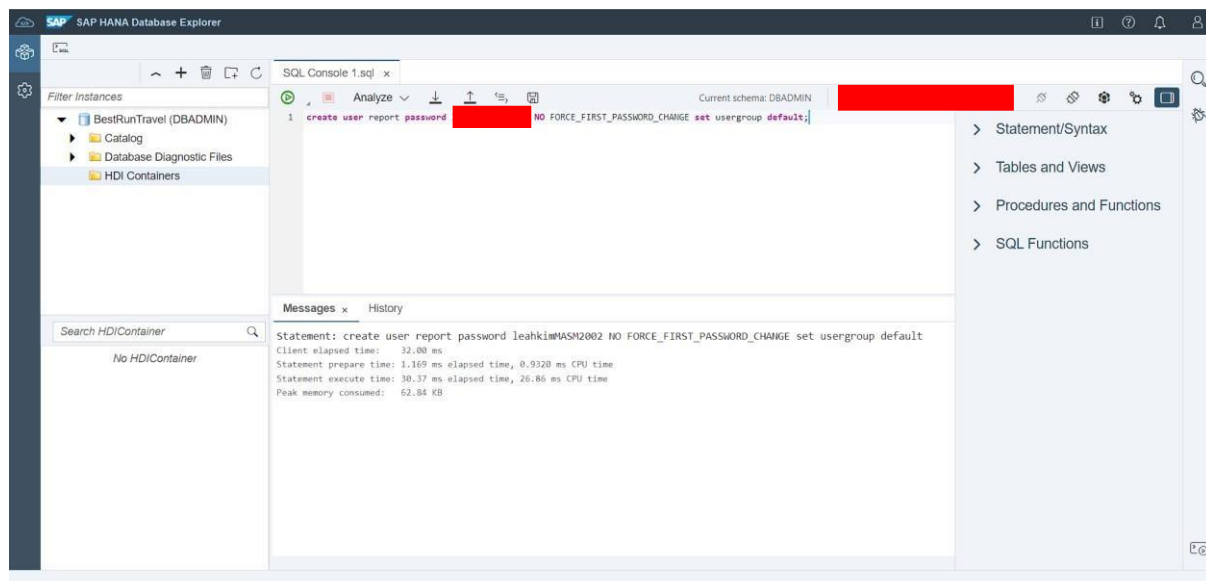
- Pindahkan project



- Buka SAP HANA Database Explorer dengan HDI Container dan buka console SQL baru.



- Buat pengguna baru, kemudian salin query, isi dengan kata sandi akun, lalu jalankan query.



SAP HANA Database Explorer

Filter Instances

- BestRunTravel (DBADMIN)
 - Catalog
 - Database Diagnostic Files
 - HDI Containers

Search HDI/Container

No HDI/Container

SQL Console 1.sql x

Analyze

Current schema: DBADMIN

```
1- grant BRT_DATA_HDI_DB_1."PublicAccessSchema" to report
```

Messages x History

Statement: grant BRT_DATA_HDI_DB_1."PublicAccessSchema" to report

Client elapsed time: 4.000 ms

Statement prepare time: 2.027 ms elapsed time, 1.742 ms CPU time

Statement execute time: 2.016 ms elapsed time, 0.4530 ms CPU time

Peak memory consumed: 63.19 KB

- Statement/Syntax
- Tables and Views
- Procedures and Functions
- SQL Functions

SAP HANA Database Explorer

Filter Instances

- BestRunTravel (DBADMIN)
 - Catalog
 - Database Diagnostic Files
 - HDI Containers

Search HDI/Container

No HDI/Container

SQL Console 1.sql x SQL Console 2.sql x

Analyze

Current schema: REPORT

```
1- CONNECT report PASSWORD
```

Messages x History

Statement: CONNECT report PASSWORD

Rows affected: 0

Client elapsed time: 39.00 ms

Statement prepare time: 0.9940 ms elapsed time, 0.7320 ms CPU time

Statement execute time: 36.82 ms elapsed time, 14.29 ms CPU time

Peak memory consumed: 62.14 KB

- Statement/Syntax
- Tables and Views
- Procedures and Functions
- SQL Functions

SAP HANA Database Explorer

Filter Instances

- BestRunTravel (DBADMIN)
 - Catalog
 - Database Diagnostic Files
 - HDI Containers

Search HDI/Container

No HDI/Container

SQL Console 1.sql x SQL Console 2.sql x

Analyze

Current schema: REPORT

```
1- SELECT TOP 1000
2   "AGENCYNUM",
3   "NAME",
4   "ORDERDAY",
5   SUPP("NUMBOOKINGS") AS "NUMBOOKINGS",
6   SUPP("DAYCOUNT") AS "DAYCOUNT"
7 FROM "BRT_DATA_HDI_DB_1"."Calc_BRT_Partners"
8 GROUP BY "AGENCYNUM", "NAME", "ORDERDAY"
```

Result x Messages x History

Rows (5)

	AGENCYNUM	NAME	ORDERDAY	NUMBOOKINGS	DAYCOUNT
1	00000122	Fly Low	THURSDAY	27869	4037
2	00000118	Asia By Plane	TUESDAY	27416	4004
3	00000101	Bella Italia	THURSDAY	27866	4038
4	00000284	Rainy, Stormy, Cloudy	MONDAY	27870	4108
5	00000109	Kangerroos	THURSDAY	27867	4095

- Statement/Syntax
- Tables and Views (1)
- Procedures and Functions
- SQL Functions (1)