Calculation view in HANA:

* Only useful if you have a numeric field also known as **‘Measure’**. If there are no numeric fields, then it has **only attributes.**
* All run time objects (when objects are activated) get stored in the schema \_SYS\_BIC
  + For e.g.: Suppose there are 3 users (Trainee01, Trainee02, Trainee03) and they have their respective objects (O1, O2, O3). Each of these objects can be created, modified and deleted only by the respective users as the objects are inside the schema of their own. Now once the objects are activated these objects are stored in \_SYS\_BIC Schema to which **all users have access**. So, then all can access the objects. (Show after activated a calculation view (in the output SQL editor)- how the schema changes **to \_SYS\_BIC**. Though the objects are now accessible by all users they cannot be modified by all -**only the owner can modify.**
  + When HANA is primary DB- even the tables that are created through SE11 are also stored in a single schema but now it’s not – so we can’t see our tables in \_SYS\_BIC.

**ADBC – ABAP Database Connectivity.**

All the tables you create in se11 gets stored in the underlying database schema (you can find it in GUI-System-status-schema). In the same schema in HANA modeler you can see the data.

ZMT\_KNA1 is present in SE11 hence in SAPLS4 of modeler.

Do a select \* from MT\_KNA1 in modeler.

Same query to run in abap we need ADBC.

**select**

KUNNR,

**ucase**(FNAME) **as** fnamec,

**concat**(fname,LNAME) **as** fullname,

EMAIL,

FAX,

AEDAT,

ACTIVE

**from** mt\_at01

becomes below code in calculation view.

**SELECT**

"FNAMEC",

"FULLNAME",

"EMAIL",

"FAX",

"AEDAT",

"ACTIVE",

**sum**("KUNNR") **AS** "KUNNR"

**FROM** "\_SYS\_BIC"."pkg-trainee01.rtc/AT\_CAL\_VIEW01"

**GROUP** **BY** "FNAMEC",

"FULLNAME",

"EMAIL",

"FAX",

"AEDAT",

"ACTIVE".

To use this in SAP GUI- SE38 report we cannot use directly as the query is present in the HANA modeler and cannot be called from ABAP code (open SQL). ABAP SQL or open SQL can access only the components of DDIC.

So, we need to inform ABAP editor that this code is not open SQL rather native SQL.

How to write Native SQL in ABAP editor:

2 ways:

1. Non-object-oriented way- Exec SQL……. ENDEXEC----- outdated.
2. ADBC- object oriented- its via standard classes and methods

ADBC:

1. Get the connectivity -CL\_SQL\_CONNECTION=>GET\_CONNECTION(SE24)
2. Execute the SQL statement of HANA CL\_SQL\_STATEMENT-> EXECUTE\_QUERY: -----returns result obj (CL\_SQL\_RESULT\_SET)
3. GET REFERENCE OF ITAB INTO O\_DATA.
4. CL\_SQL\_RESULT->SET\_PARAM\_TABLE: --- set itab ref as output parameters
5. CL\_SQL\_RESULT\_SET->NEXT\_PACKAGE: ---- Read all the records into itab

*To get the method implementation in se38->new method.*

*CL\_SQL\_CONNECTION=> (press ctrl + space) select the required method then press shift + Enter.*