**Documentation for SQL Query: NRA Footprint**

The NRA Footprint report is designed to provide a comprehensive view of client activities, their associated business entities, and user-defined fields. This report integrates data from multiple tables and uses advanced DAX logic in Power BI to present insights in a clear and actionable format.

**1. Overview**

The SQL query is constructed to:

* **Purpose of the report:** Combine information from multiple tables to create a detailed report that includes active clients, their associated business activities.

**2. Query Breakdown**

This query is combination of multiple subqueries, each performing a specific task:

* **Subquery A (Client and Entity Information):**
  + Selects active clients, extracting their client number, name, type, and associated entity information (name and status).
* **Subquery B (Business Activity Information):**
  + Gathers details about completed business activities, including their type and description, linked to each client.
* **Subquery C (User-Defined Fields):**
  + Retrieves custom data fields that are actively used, including their names and values, associated with each client.
* **Final Query:**
  + Combines the results of the above subqueries using LEFT JOINs, ensuring all clients are included even if they have no linked business activities or user-defined fields.
  + The query produces a unique set of results with all relevant client data.

**3. Power BI Logic Overview:**

* **First Logic - Questions\_Legal:**
  + Formula:
    - Questions\_Legal = CONCATENATE("a5", a5[Legal\_Entity])
  + Purpose:
    - This logic creates a unique identifier by concatenating the question number ('a5') with the Legal\_Entity value. It helps in easily associating each entity with a specific question for further analysis.
* **Second Logic - Question\_Legal:**
  + Formula:
    - Question\_Legal = CONCATENATE(Questionnaire[Questions No], Questionnaire[Legal\_Entity])
  + Purpose:
    - This logic performs a similar concatenation within the Questionnaire table, tying each legal entity to its respective question number, aiding in the comparison and aggregation of data.
* Third Logic - a5 Calculation:
  + Formula:
    - a5 = IF(MAX(Questionnaire[Questions No]) = "a5", CALCULATE(COUNT(a5[Legal\_Entity]), 0))
  + Purpose:
    - This logic counts the number of legal entities associated with the 'a5' question. It conditions the count to activate only if the question number is 'a5', ensuring targeted analysis.
* **Final Logic - Answer Calculation:**
  + Formula:
    - Answer = IF(Questionnaire[Questions No] = "a5" && a5[a5] > 0, "nil", IF(Questionnaire[Questions No] = "a5" && a5[a5] <= 0, "0"))
  + Purpose:
    - This logic determines the output based on the count of legal entities. If the count is greater than 0, it returns 'nil'; otherwise, it returns '0'. This provides a quick and clear indication of whether any legal entities are engaged with the specific question.
* **Dynamic Interaction:**
  + The dashboard allows users to filter and view data based on specific questions (like 'a5'). As users interact with the report, the visuals dynamically update to show relevant legal entity counts and corresponding answers.

**4.Query:**

WITH A AS (

select

JC.CLIENT\_NO\_,JC.type,[JC.name](http://jc.name/),JC.global\_dimension\_1\_code as Legal\_entity,

CASE WHEN CAST(DATE\_OF\_EXIT AS DATE) = '1753-01-01' THEN NULL ELSE CAST(DATE\_OF\_EXIT AS DATE) end as DATE\_OF\_EXIT,JC.STATUS,JC.ClientAnalysisE as Client\_Group,JC.ClientAnalysisF as Solution\_Line,

JCE.ENTITY\_NO\_,JCE.ENTITY\_TYPE,JCE.ENTITY\_NAME,JCE.APPOINTMENT\_CLASSIFICATION,

CASE When Status = 0 THEN 'Prospective' When Status = 1 THEN 'Live'

When Status = 2 THEN 'Terminal' When Status = 3 THEN 'Closed' ELSE 'Null' END AS Client\_Status

from CLEANSING\_ZONE.JER\_NAVONE\_DBO.CZ\_JER\_NAVONE\_DBO\_\_JERSEY\_CLIENT JC

join CLEANSING\_ZONE.JER\_NAVONE\_DBO.CZ\_JER\_NAVONE\_DBO\_\_JERSEY\_CLIENT\_ENTITY JCE on JCE.client\_no\_ = JC.client\_no\_

where

not contains(JC.client\_no\_, 'Temp') and JC.client\_no\_ not in ('JEC03200','JEC03204','JEC01817','JEC01823','JEC04353')

and date\_of\_exit is not null),

B as (

select CBAT.client\_no\_, CBAT.TIMESTAMP,CBAT.BUSINESS\_ACTIVITY,BAT.RISK\_RATING

from CLEANSING\_ZONE.JER\_NAVONE\_DBO.CZ\_JER\_NAVONE\_DBO\_\_JERSEY\_CLIENT\_BUS\_\_ACTIVITY\_TYPES CBAT

join CLEANSING\_ZONE.JER\_NAVONE\_DBO.CZ\_JER\_NAVONE\_DBO\_\_JERSEY\_BUSINESS\_ACTIVITY\_TYPES BAT ON CBAT.Business\_Activity = BAT.code

where BUSINESS\_ACTIVITY IS NOT NULL),

C as(

select UDF.CODE,UDF.description,[UDFD.DATA](http://udfd.data/),udfd.linked\_to\_no\_ AS client\_no\_

from CLEANSING\_ZONE.JER\_NAVONE\_DBO.CZ\_JER\_NAVONE\_DBO\_\_JERSEY\_USER\_DEFINED\_FIELD UDF

join CLEANSING\_ZONE.JER\_NAVONE\_DBO.CZ\_JER\_NAVONE\_DBO\_\_ZURICH\_USER\_DEFINED\_FIELD\_DATA UDFD on UDFD.code = UDF.code)

select DISTINCT

A.CLIENT\_NO\_,A.type,[A.name](http://a.name/),A.Legal\_entity,A.DATE\_OF\_EXIT,A.STATUS,A.Client\_Group,A.Solution\_Line,A.ENTITY\_NO\_,A.ENTITY\_TYPE,

A.ENTITY\_NAME,A.APPOINTMENT\_CLASSIFICATION,B.TIMESTAMP,B.BUSINESS\_ACTIVITY,B.RISK\_RATING,C.CODE,C.description as DNAV\_Code,[C.DATA](http://c.data/),C.client\_no\_ AS linked\_to\_no\_,A.Client\_Status

FROM A LEFT JOIN B ON a.client\_no\_ = b.client\_no\_

LEFT JOIN C ON a.client\_no\_ = C.client\_no\_

**Conclusion**

This SQL query provides a comprehensive and detailed report on the Footprint of specific clients. It integrates multiple sources, cleanses data, handles exceptions, and formats the final output to meet regulatory requirements.