**Generating ERD (Entity Relationship Diagram)**

Steps for Generating Database Schema Diagram (ER) of SABAN Database in Oracle (Create a diagram for existing database schema or its subset) as follows:

1. Click **File** → **Data Modeler** → **Import** → **Data Dictionary**.
2. Select a DB connection (add one if none), in this scenario select (connection name **SABNXPT** and connection details **sabn@//adl0674:1521/SABNXPT**).
3. Click **Next**.
4. Check one or more schema names (In this scenario check **SABN**).
5. Click **Next**.
6. Check one or more objects to import (check all the tables here).
7. Click **Next**.
8. Click **Finish**.

The ERD (Entity Relationship Diagram) is displayed.

Export the diagram as follows:

1. Click **File** → **Data Modeler** → **Print Diagram** → **To Image File**.
2. Browse to and select the export file location.
3. Click **Save**.
4. The diagram is exported. To export in a vector format, use **To PDF File**, instead. This allows for simplified editing using Inkscape (or another vector image editor).

\*Note - These instructions may work for SQL Developer 3.2.09.23 to 4.1.3.20.

\*Image Version of the ERD - <SABNXPT_DATABASE_SCHEMA_DIAGRAME(ER).png>

\*PDF Version of the ERD - <SABNXPT_DATAQBASE_SCHEMA_DIAGRAME(ER).pdf>

**Generating Table Information in SABN Database in Oracle**

1. Query to get all the table names in SABN Oracle database

**SELECT** OWNER, TABLE\_NAME

**FROM** all\_tables

**WHERE** OWNER = 'SABN'

**ORDER BY** TABLE\_NAME **ASC**;

1. Query to fetch the column names and data types in SABN in Oracle

**SELECT** OWNER, TABLE\_NAME, COLUMN\_NAME, DATA\_TYPE, DATA\_LENGTH, DATA\_PRECISION

**FROM** ALL\_TAB\_COLUMNS

**WHERE** OWNER = 'SABN';

\*Result Set: <SABN_Query_ResultSet.xlsx>

**Migrating Oracle Databases to SQL Server (Oracle To MSSQL)**

1. Create a script written in php to generate CREATE TABLE SQL statements automatically for 225 tables in SABN database. Need to get the all the table details in SABN database like Table name, column names on each tables data types etc… the Oracle/PL query for that is below

**SELECT** TABLE\_NAME, COLUMN\_ID, COLUMN\_NAME, DATA\_TYPE, DATA\_LENGTH, DATA\_PRECISION, NULLABLE, DEFAULT\_LENGTH

**FROM** ALL\_TAB\_COLUMNS

**WHERE** OWNER = 'SABN'

**ORDER** **BY** TABLE\_NAME **ASC**, COLUMN\_ID **ASC**.

1. Run the php scrip to get all the SQL create statements for all the tables in SABN and run those statements on SQL server.
2. Mapping all the data types on each column on each table with SQL Server data type.
3. Develop the script using PHP to get all the data based on the table name from SABN database and inserted those select data into same tables created in SQL server automatically.
4. Compare 2 databases in order to check all the data which were migrated from Oracle SABN into MSQL Server are accurate.

Queries for SABN (Oracle)

1. To get the row count in a table

“**SELECT** **COUNT** (\*) **FROM** TABLE\_NAME;”

1. To get specific rows eg. Like get result set from 500 to next 100

“**SELECT** \* **FROM** (**SELECT** t.\*, ROWNUM r FROM FIELD\_DETAILS t) WHERE r > 0 AND r <= 200;”

1. To get the first 5 or 10, 100 records

“**SELECT** \* **FROM** FIELD\_DETAILS **WHERE** **ROWNUM**<= 5”

Queries for SABN (MS SQL Server)

1. To get the row count in a table

SELECT COUNT (\*) FROM TABLE\_NAME

1. To get specific rows eg. Like get result set from 500 to next 100

SELECT TOP 5\* FROM TABLE\_NAME

1. To get the first 5 or 10, 100 records

SELECT \* FROM TABLE\_NAME ORDER BY RECORD\_NUMBER offset 200 ROWS FETCH NEXT 100 ROWS only

**Major Errors**

1. Change Long Row data type into VARCHAR (max) in MS SQL Server
2. **Execute the Tables Batchwise rather than executing all the tables at once**