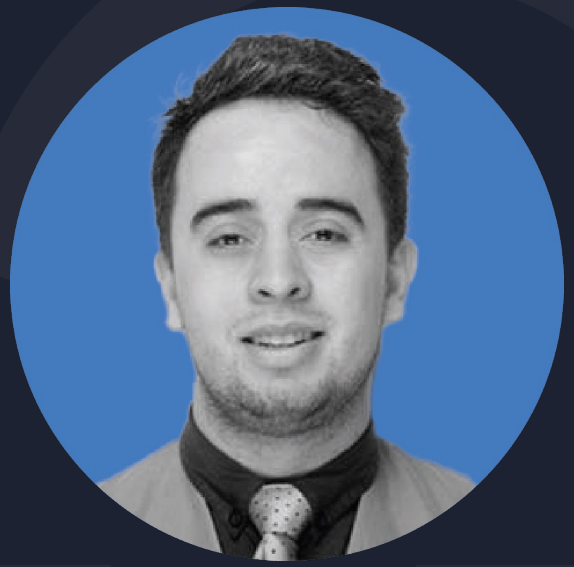
VISCOSITY
PROFESSIONAL SERVICES

DIY – Build Your Own Report Workshop in APEX



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Why a Report Workshop?

Benefits

- Custom Functionality.
- Let power users handle their data sources.
- User-friendly and easy to use.
- Flexible integrations for developers and end-users.
- Control Over Updates and Maintenance

Building Steps

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- Configure APEX Office Print on DBS and APEX.
- Understand the use cases.
- Create Database Objects.
- Create custom Utils to interact with Database Objects.
- Build the Screens.
- Test and check the results.

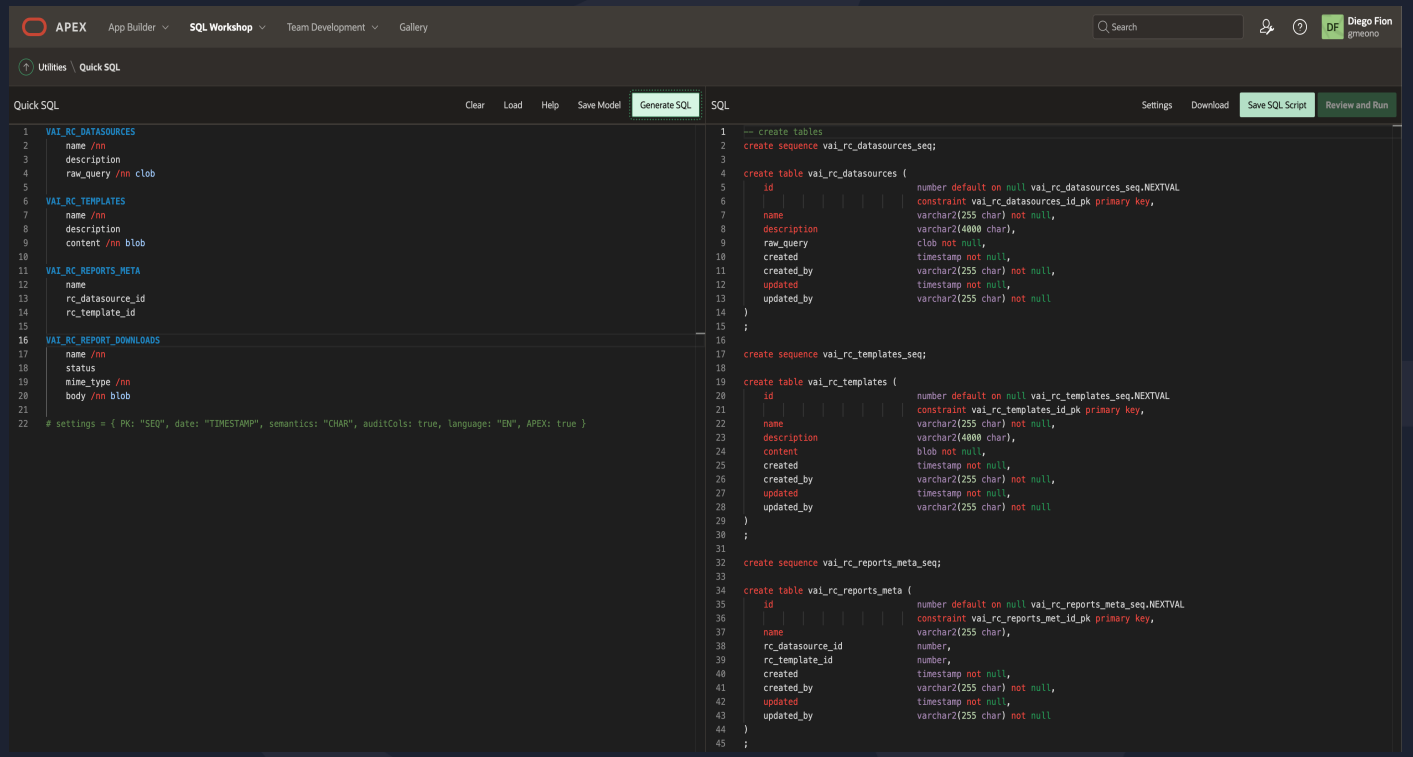
Install AOP

1. Unzip the file you downloaded from https://www.apexofficeprint.com
2. Install the PL/SQL API.
3. Go to APEX to SQL Workshop > SQL Scripts > Upload
4. Select file /apex_version_\<version>/db directory/aop_db_pkg.sql
5. Give it a name and click the Upload button.
6. Click the run icon for the script you just uploaded, confirm that the schema in the upper right-hand corner of the screen is correct, and click Run Now.
7. All statements should be successful.

For a detailed reference, go to: https://www.apexofficeprint.com/docs/quick-install.html

Create Database Objects.

- Go to SQL Workshop > Utilities > Quick SQL
- Paste the Quick SQL code.
- Modify according to your needs.
- Click “Generate SQL” option.
- Deploy it in your Database.

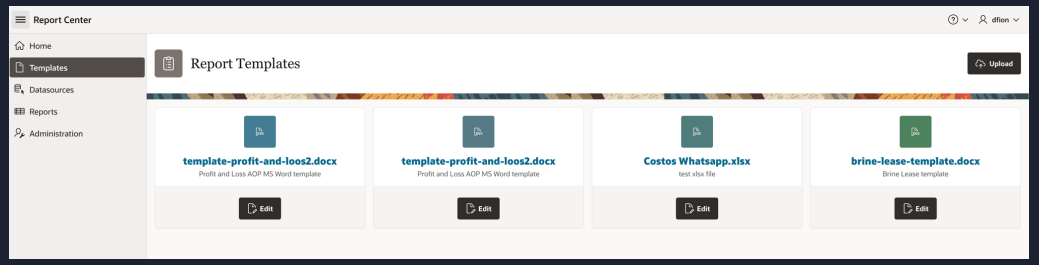


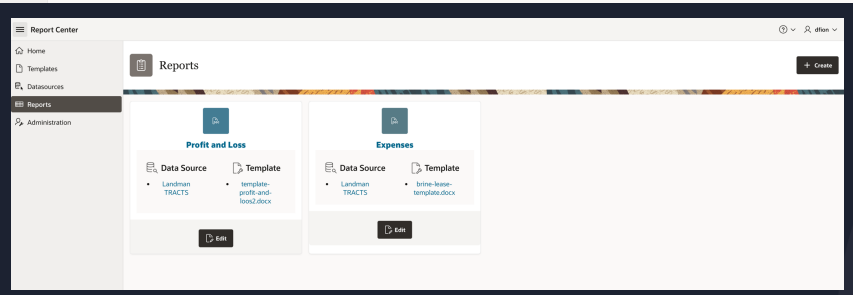
Install VAI_RC_UTILS

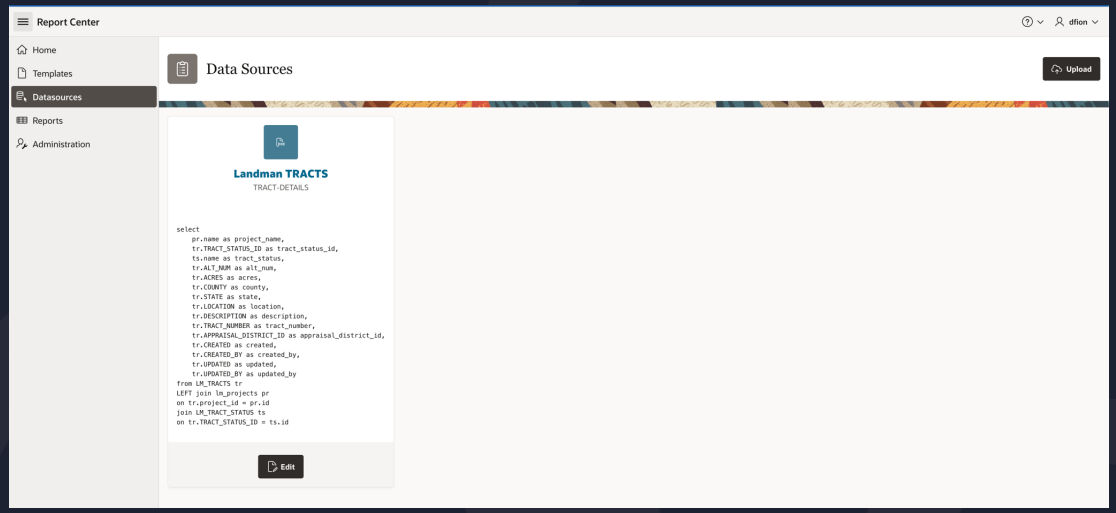
- Download the VAI_RC_UTILS.sql package and run it into your database.
- Configure the necessary variables to use your AOP installation.
- Review package functions and procedures for a better understanding.

```
-- Create a custom record type to hold different data types
CREATE OR REPLACE TYPE t_varchar_array_record AS OBJECT (
    nm_val NUMBER,
    v2_val VARCHAR2(4000),
    cb_val CLOB,
    dt_val DATE
);
/

-- Create a nested table type based on the custom record type
CREATE OR REPLACE TYPE t_varchar_array IS TABLE OF t_varchar_array_record;
/

CREATE OR REPLACE PACKAGE VAI_RC_UTILS AS
/*
    @Purpose: Provides utilities for generating and storing AOP reports
    @Author: Diego Fion
    @Date: 2023-04-27
*/

/*
    @Function: get_json_object_from_raw_query
    @Purpose: Converts a given raw SQL query into a JSON query notation
    @param p_sql: The raw SQL query to be converted
    @param p_datasources_common_parameters: An optional array of dynamic parameters to be usec
    @return: A CLOB containing the converted SQL query in JSON notation
    @Note:
        t_varchar_array_record supported types are:
            nm_val -> NUMBER
            v2_val -> VARCHAR2
            cb_val -> CLOB
            dt_val -> DATE
    @Example:
        DECLARE
            l_sql CLOB := 'SELECT * FROM employees WHERE department_id = #P1# AND manager_id =
            l_params t_varchar_array := t_varchar_array(); -- Initialize the nested table
        BEGIN
            l_params.extend(3);
            l_params(1) := t_varchar_array_record(10, NULL, empty_clob(), NULL); -- Number (de
            l_params(2) := t_varchar_array_record(101, NULL, empty_clob(), NULL); -- Number (n
            l_params(3) := t_varchar_array_record(NULL, 'IT_PROG', empty_clob(), NULL); -- Var

            DBMS_OUTPUT.PUT_LINE(VAI_RC_UTILS.get_json_object_from_raw_query(l_sql, l_params))
        END;
*/
    FUNCTION get_json_object_from_raw_query(p_sql IN CLOB
                                          , p_datasources_common_parameters IN t_varchar_arr

/*
    @Function: get_json_object
    @Purpose: Generates a JSON object based on data source IDs
    @param p_datasource_ids: A CLOB containing a comma-separated list of data source IDs
```

Install the VAI RC Sample App







- Go to App Builder > Import and follow the import steps.
- Verify the app was installed correctly.
- You should have:
  - Template Maintenance Screen
  - Data sources Screen
  - Reports Screen

Demo and Use Cases

Questions?

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