**Tables/Views to Use:**

The tables prefixed “TblList\_” ***are*** available to be used.

Please note that DATA tables should ***NOT*** be directly referenced, but rather their equivalent VIEWS, the only exception is the LIST tables mentioned above. The purpose of this is to limit the dataset used in this Test.

USE Microsoft Excel to store results in. You can create individual Excel files – one for each question; or a single file with a separate worksheet for each question.

ENSURE THAT THE SQL scripts you use to create your data are SAVED and easily identifiable to cross-reference with the resultant Excel data.

It is understood that you are unfamiliar with the Table Structures and Relationships between them. The purpose of this test is NOT to evaluate your understanding of the system, so much as being able to think logically, ask appropriate questions (as many as you like), and most of all – to evaluate the data available to produce the required reports.

**Tasks - Demographics**

1. Create 6 (six) demographic reports, of your choice in tabulated/summarised format based on the Client Data (vwClients) and related tables/views, and graph, plot, or visualise accordingly.
2. Which of these reports are most suited for Marketing/Advertising Consideration and why?
3. Which of these reports are most suited for Management in understanding the Business’s Client Breakdown?
4. For ALL ACTIVE Accounts/Clients in the Views, summarise “by week, by State” and Total (ie. all states combined), the employment demographic (“empBasis” field) and visually show the percentage change of this demographic ***FROM*** the period Monday 30-Nov-2020 ***TO*** Sunday 31-Jan-2021.

**Tasks - Accounts**

Create 5 (five) reports (tabulated/summarised data) based on the Client and/or Account Data, and graph, plot, or visualise accordingly to identify:

1. Growth of New Accounts ... total and by state.
2. Age of Existing Accounts ... total and by state
3. Average No of Draws Per Month, for each state, for ***Weekly*** salary interval accounts in the View created prior to 1 January.
4. Frequency distribution of accounts and their draws in relation to account-age (for all accounts (in the View) created prior to 1 January).
5. Create a growth forecast report – OF YOUR CHOICE – by state and total. Ensure to title the graph/report to identifying what you have chosen to show the growth of.

... use a time interval of your choosing, but which is logical do demonstrate the requirements of the reports.

**Tasks - Transactions**

Create 3 (three) reports (tabulated/summarised data) based on the Account Payments and Gateway Payments, and graph, plot, or visualise accordingly:

1. Identify and Summarise (by Day) ***Successful*** Gateway Payment transactions for which there are MISSING records in the Accounts Payments. What can you deduce (if anything) from this data – in regards to the DATABASE SYSTEM’S performance and processing?
2. Summarise for EACH Salary Interval type, and by State, the TOTAL DAILY ***Payments To*** clients (CR transactions), and SUCCESSFUL ***Repayments From*** clients (DR transactions). Graph accordingly.
3. Summarise for EACH Salary Interval value, and by State, the TOTAL DAILY Unsuccessful ***Repayments From*** clients (DR transactions).

Question: Given that, for the weekly ***Salary Interval*** type, repayments should be made the WEEK AFTER a Payment (or Draw) is made, can you make any inferences about the successfulness of repayments in relation to payments?

**What do you think?**

Are there any patterns in the data/tables which stand out as worth investigating further?

What fields (if different to the question above) have the potential for further analysis?