**Data Project**

An Excel file, **SDRProject**, is being provided to get a sense of how the candidate(s) for the position can work with a data set and manipulate the data into a required format.

**Phase 1 – Data Manipulation**

The candidate should consider that the data set will be updated each quarter and should try to create a scenario that this can be updated as efficiently as possible.

1. Convert the **Quarter/Year (Asset Date)** data, which will be seen as Q1/2020, Q2/2020, etc. into a proper date format (i.e. 3/31/2020, 6/30/2020, etc.)
2. Clean the Product Display Lens data to remove instances of “- Active” and “ – Passive”. For example, all instances of “Equities Global – Passive” become “Equities Global” and “Equities Asia Pacific – Active” should become “Equities Asia Pacific”. Note: The **Fund Strategy** field is to remain untouched.
3. Convert the **AUM** and **NetFlow** fields into Currency.
4. Map the **Client Sub Type** to the below Client Group and Channel:

|  |  |  |
| --- | --- | --- |
| **Client Sub Type** | **Client Group** | **Channel** |
| Asset manager & sub-advised | Wealth | AM & Sub-Advised |
| DB - Private | Pensions | Defined Benefit |
| DB - Public | Pensions | Defined Benefit |
| DB - Taft-Hartley/Union | Pensions | Taft-Hartley |
| DB - Undefined | Pensions | Defined Benefit |
| DC - Private | Pensions | Defined Contribution |
| DC - Public | Pensions | Defined Contribution |
| DC - Taft-Hartley/Union | Pensions | Taft-Hartley |
| DC - Undefined | Pensions | Defined Contribution |
| ETF Investor | Wealth | ETF Investor |
| Family Office | Long-Term Assets | Family Office & PB |
| Private Bank | Long-Term Assets | Family Office & PB |
| 529 | Other | Institutional (Other) |
| Consultant / OCIO | Other | Institutional (Other) |
| Health and welfare | Other | Institutional (Other) |
| Institutional undefined | Other | Institutional (Other) |
| Omnibus | Other | Institutional (Other) |
| Insurance General Account | Insurance | Insurance GA |
| Endowment | Long-Term Assets | Non-Profit |
| Foundation | Long-Term Assets | Non-Profit |
| NDT | Long-Term Assets | Non-Profit |
| Not for profit - other | Long-Term Assets | Non-Profit |
| Retail/Wholesale | Wealth | Retail/Wholesale |
| Sovereign Wealth Fund/Official Institution | Long-Term Assets | SWF/Off. Inst. |
| Bank treasury/treasury undefined | Long-Term Assets | Treasury |
| Corporate treasury | Long-Term Assets | Treasury |

**Phase 2 – Data Analysis**

Provide a summary data analysis through Excel or a visualization tool such as PowerBI, Tableau, etc.

Some of the trends we would like to see captured are:

* The calendar quarter growth in **AUM** by both *Asset Class* and *Client Group*. Perhaps this can be filtered by **Client Country** for the end-user.
* Using a line chart, what are the cumulative **NetFlows** going into the different *Product Display Lens*. Provide a filter for: (1) Client Group; (2) Channel; and Fund Strategy.
* Create a heatmap table that can easily identify the Channel with the largest latest **AUM** (6/30/2023) by the *Product Display Lens*. Add a filter for the **Fund Strategy**.
* If you considered any other relevant data summaries please provide those