In this exercise the candidate will be required to develop a report using a provided dataset. The goal is to assess the ability to handle real-world data, apply analytical techniques, and present actionable insights based on that data.

Guideline:

1. Datasets:
   * The candidate will be provided with datasets containing various details such as Service BC service centre locations, service volumes, and transaction durations. A data dictionary with table definitions will be provided alongside the datasets.
   * The datasets will be provided in .csv file format and the candidate should explore and preprocess the data as necessary.
   * The candidate should supplement the provided datasets with additional open-source datasets such as those available from the BC government:
     + A-Z Listing of BC First Nations <https://www2.gov.bc.ca/gov/content/environment/natural-resource-stewardship/consulting-with-first-nations/first-nations-negotiations/first-nations-a-z-listing>
     + Population of BC Communities and Regions <https://www2.gov.bc.ca/assets/gov/data/statistics/people-population-community/population/pop_municipial_subprov_areas.xlsx>
2. Analysis:
   * The candidate should perform exploratory data analysis to gain insights into the dataset, identify relevant patterns, and understand relationships between variables.
   * Based on their analysis, the candidate should select appropriate features such as demographic data (key feature: urban or rural / population size, indigenous community) and develop a report or dashboard and a slide deck presentation.
3. Insights and Recommendations:
   * In their analysis the candidate should interpret the results, identify potential data quality issues, and provide actionable insights.
   * Candidate will develop a PowerPoint presentation to present their findings, summarizing their methodology, including key influencing factors, insights and any recommend strategies or actions that the Service BC can take.
4. Documentation:
   * The candidate should document their approach, code, and analysis steps in a clear and organized manner.

Evaluation Criteria: The candidate's performance can be evaluated based on the following criteria:

* Data preprocessing and exploratory data analysis.
* Selection and implementation of appropriate analysis techniques.
* Interpretation of results and actionable insights.
* Documentation and organization of code where applicable.
* Clarity and effectiveness of the presentation.

Scoring:

1. Detect potential data quality issues (30 points): Provide a summary report in a Word document.
2. Exploratory research and findings (40 points): Provide code or PowerBI dashboard.

\*If analysis is in python, provide a summary and highlight of each visualization

* 1. Identifying relevant patterns, relationships between variables. (20 points)
  2. Providing deeper insights by integrating separate datasets, demographics (20 point)

1. Data Insights presentation (30 points): Provide a summary of your work in a PowerPoint deck.

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