**Assignment: Final Project Document (Part A)**

**Overview**

In this assignment, you are provided with a dataset titled **“Estimates of the Use of Water (2000 – 2020)”**. Your goal is to explore the dataset, analyse trends, and generate meaningful insights using **machine learning** and **data analysis techniques**. Assume the role of a **data analyst** tasked with presenting valuable findings to stakeholders.

**Objectives**

1. Explore and understand the dataset.
2. Perform data preprocessing and cleaning as necessary.
3. Use data analysis techniques to generate insights.
4. Apply machine learning models where appropriate.
5. Document and present your findings in a clear, structured format.

**Evaluation Criteria**

* **Data Exploration** (5 Marks): Completeness and quality of initial exploration and visualization.
* **Data Cleaning** (5 Marks): Effectiveness of preprocessing steps and handling of missing data.
* **Data Analysis** (10 Marks): Depth and relevance of insights generated.
* **Machine Learning Model** (15Marks): Accuracy and relevance of the model, as well as the interpretation of results.
* **Presentation** (15 Marks): Clarity and completeness of the report, presentation of insights, and overall structure.

**Total Marks: 50**

**Due Date: 13th December 2024**