**Skills Assessment**

**Sr. Data Science Consultant**

**Context:**

The **Senior Data Science Consultant** will need to work in many different domains utilizing varied technologies, developing data science products and Exploratory Analysis Notebooks with supporting presentations and documentation as part of project scoping. This **hypothetical assignment and fictitious scenario** is designed to showcase those skills.

We know you’re busy, and we want to remain respectful of your time. We expect the below exercise to take no more than 4-8 hours to complete. We appreciate your time and look forward to reviewing your assignment!

**Assignment:**

Based on your own experience and expertise, this assignment is to perform analysis on the [Kaggle](https://www.kaggle.com/datasets/wilmerarltstrmberg/recipe-dataset-over-2m) [Food](https://www.kaggle.com/datasets/wilmerarltstrmberg/recipe-dataset-over-2m) [Recipe](https://www.kaggle.com/datasets/wilmerarltstrmberg/recipe-dataset-over-2m) [Dataset](https://www.kaggle.com/datasets/wilmerarltstrmberg/recipe-dataset-over-2m) (you will need to register with Kaggle). The aim is to understand the nature and quality of this dataset through standard data science techniques, plus any novel ones you might want to demonstrate to show how a non-technical user might gain insight from this dataset.

Questions we would want to answer:

* What fields are in the data?
* How do fields in the data relate to each other?
* Are there any data quality issues? ● What patterns do you see?

Additionally:

* How could we best visualize the data beyond basic graphs and tables?
* Extra points: How might somebody use natural language questions like those above and get back answers about the dataset?

You can use standard data science exploratory techniques as well as things like network graphs and generative AI if you think they might provide a better understanding of the data.

**Outputs:**

Submit a zip file containing:

* A Jupyter notebook of an exploratory analysis of the dataset
* Any other Jupyter notebooks demonstrating the techniques mentioned above

Please ensure any work is reproducible.