**Practice Case Study**

The following case study is for your practice and not graded. Utilise your learnings from the past two sessions to develop the solution strategy for this case study.

Business problem: sales pipeline conversion at a SaaS startup

This assignment is around a case study about **TechnoServe**, a fictional tech **SaaS** (Software as a service) startup that specialises in different types of cloud-based software services to the small and medium enterprise customers. The products provided by the company are inclined towards increasing the productivity for the customers.

The revenue that the company generates is highly dependent on the consumption of the cloud services that they provide. Therefore, the revenue in-flow in the company is highly dependent on the number of clients that the company has. The company is facing a very pertinent problem faced in the IT industry today, declining conversions across its sales funnel.

The problem that the company is facing is that its pipeline conversion percentage has dropped from **35%** at the end of the last fiscal (FY 2019-20) to**25%** at present. The company needs a solution to solve the issue, and they have asked you to come up with one.

Here are a few details about TechnoServe that you should be aware of:

* The company is based out of Pune and started its operations in 2010.
* It has clients spread over Pune and other cities as well.
* There are more than 600 employees, distributed over multiple teams.
* It has a wide variety of IT solutions spread across different industries.

To get a brief idea about IT solutions, you can refer to the [link](https://searchitchannel.techtarget.com/definition/solution).

## Problem Statement

Understand the problem, come up with possible hypotheses for low conversions faced by TechnoServe. Once that is done, you need to analyse the dataset given below to validate the hypotheses and form the solution strategy that they should employ to solve the problem.   
The dataset and the data dictionary are given below.

Objectives

Utilise the concepts that you learnt in Business Problem Solving module to develop a solution for the given problem statement. Make sure you include the following points:

* Go through the links provided and the dataset given to developing 4-5 hypotheses regarding the possible root causes of  low lead conversion.
* Map the problem to the relevant data science problem and develop the solution approach that you’ll follow.
* Proceed with EDA to find the most relevant variables that affect lead conversion.
* Discuss at least 3 ML models that can be utilised to solve this problem. Note that you don’t have to build the model for the dataset, just a brief description of the models that would work in this scenario along with the reasons on when one can be preferred over the other.
* Mention the evaluation metrics that you’ll be using to track your model’s performance. Make sure that they’re mapped to the relevant business outcomes.