**What is the capstone project?**

The capstone project is a way for you to apply and assess your newly acquired data analytical skills. In this project, you’ll take on the role of a newly hired data analytics professional. Within the capstone project scenario, you’ll be responsible for tasks like setting up your teams’ workflow, creating a project proposal, carrying out EDA, and building models. Along the way, you’ll interact with a variety of internal and external stakeholders, sharing your insights and final recommendations through an executive summary.

**Capstone project scenario overview: Working for Salifort Motors**

**About the company**

Salifort Motors is a fictional French-based alternative energy vehicle manufacturer. Its global workforce of over 100,000 employees research, design, construct, validate, and distribute electric, solar, algae, and hydrogen-based vehicles. Salifort’s end-to-end vertical integration model has made it a global leader at the intersection of alternative energy and automobiles.

**Your business case**

As a data specialist working for Salifort Motors, you have received the results of a recent employee survey. The senior leadership team has tasked you with analyzing the data to come up with ideas for how to increase employee retention. To help with this, they would like you to design a model that predicts whether an employee will leave the company based on their  department, number of projects, average monthly hours, and any other data points you deem helpful.

**The value of your deliverable**

For this deliverable, you are asked to choose a method to approach this data challenge based on your prior course work. Select either a regression model or a tree-based machine learning model to predict whether an employee will leave the company.

The capstone project will provide you with valuable experience and data analysis examples that you can share with potential employers.

Throughout the capstone project, you will use the skills and experience that you acquired in each course and the accompanying end-of-course projects. The capstone project scenario will offer opportunities to:

* Gather information pertaining to a business problem or an organizational inquiry
* Answer questions relevant to coding with Python
* Conduct exploratory data analysis
* Build statistical data models and machine learning models
* Consider ethical issues related to the task
* Present your findings for a general audience of stakeholders