Course Seven
Google Advanced Data Analytics Capstone

Instructions

Use this PACE strategy document to record your decisions and reflections as a data professional as you work through the capstone project. As a reminder, this document is a resource guide that you can reference in the future and a space to help guide your responses and reflections posed at various points throughout the project.

Portfolio Project Recap

Many of the goals you accomplished in your individual course portfolio projects are incorporated into the Advanced Data Analytics capstone project including:

- Create a project proposal

- Demonstrate understanding of the form and function of Python

- Show how data professionals leverage Python to load, explore, extract, and organize information through custom functions

- Demonstrate understanding of how to organize and analyze a dataset to find the "story"

- Create a Jupyter notebook for exploratory data analysis (EDA)

- Create visualization(s) using Tableau

- Use Python to compute descriptive statistics and conduct a hypothesis test

- Build a multiple linear regression model with ANOVA testing

- Evaluate the model

- Demonstrate the ability to use a notebook environment to create a series of machine learning models on a dataset to solve a problem

- Articulate findings in an executive summary for external stakeholders

Project proposal

Salifort Motors project proposal

Overview

Investigating employee satisfaction at Salifort Motors to find possible predictors of quitting to help them reduce turnover.

Milestones	Tasks	PACE stages
1	**Learn about the business scenario to understand the problem and what success looks like**	Plan
2	**Data exploration and cleaning**	Plan, Analyze
3	**Compare available data to desired result to determine what models might be useful**	Analyze, Construct
4	**Develop model or models to explain relationships in data**	Construct
5	**Confirm model assumptions to be sure results are valid**	Analyze, Construct
6	**Evaluate model results; explore alternatives depending on accuracy**	Analyze, Construct
7	**Interpret results, extract actionable business insight to discuss with shareholders**	Execute