In this module, you will learn about the importance of model evaluation and discuss different data model refinement techniques. You will learn about model selection and how to identify overfitting and underfitting in a predictive model. You will also learn about using Ridge Regression to regularize and reduce standard errors to prevent overfitting a regression model and how to use the Grid Search method to tune the hyperparameters of an estimator.

**Learning objectives**

* Describe data model refinement techniques
* Explain overfitting, underfitting and model selection
* Apply ridge regression to regularize and reduce the standard errors to avoid overfitting a regression model
* Apply grid search techniques to Python data