**Module 3 Summary**

Congratulations! You have completed this module. At this point in the course, you know:

* Libraries usually contain built-in modules that provide different functionalities.
* You can use data visualization methods to communicate with others and display meaningful results of an analysis.
* For machine learning, the Scikit-learn library contains tools for statistical modeling, including regression, classification, clustering, and so on.
* Large-scale production of deep-learning models use TensorFlow, a low-level framework.
* Apache Spark is a general-purpose cluster-computing framework that allows you to process data using compute clusters.
* An application programming interface (API) allows communication between two pieces of software.
* API is the part of the library you see while the library contains all the components of the program.
* REST APIs allow you to communicate through the internet and take advantage of resources like storage, data, artificially intelligent algorithms, and much more.
* Open data is fundamental to Data Science.
* Community Data License Agreement makes it easier to share open data.
* The IBM Data Asset eXchange (DAX) site contains high-quality open data sets.
* DAX open data sets include tutorial notebooks that provide basic and advanced walk-throughs for developers.
* DAX notebooks open in Watson Studio.
* Machine learning (ML) uses algorithms – also known as “models” – to identify patterns in the data.
* Types of ML are Supervised, Unsupervised, and Reinforcement.
* Supervised learning comprises two types of models, regression and classification.
* Deep learning refers to a general set of models and techniques that loosely emulate the way the human brain solves a wide range of problems.
* The Model Asset eXchange is a free, open-source repository for ready-to-use and customizable deep-learning microservices.
* MAX model-serving microservices are built and distributed on GitHub as open-source Docker images.
* You can use Red Hat OpenShift, a Kubernetes platform, to automate deployment, scaling, and management of microservices.
* Ml-exchange.org has multiple predefined models.