The Lightweight IBM Cloud Garage Method for Data Science

Architectural Decisions Document Template

# Architectural Components Overview

## Data Source/Repository

### Technology Choice

The technology chosen for the data source was to use Object Store.

### Justification

Given that I was employing Watson Studio to manage my data and prepare/test the machine learning model, having the data uploaded to Object Store was the most convenient option. The data used was also not very large, at present. If this project were to be continued after the course is complete, a local data store would be needed, as the data volume would become larger than Object Store would be easily capable of handling.

## Discovery and Exploration

### Technology Choice

The technology chosen for Discovery and Exploration in the data was Watson Studio.

### Justification

Since the course employed Watson Studio and it has all the tools available (and I don’t own a server or high-powered computer), it made sense to continue to employ IBM’s free tier toolset for this project. If this project were to be continued, then I would likely invest in a more robust set of resources or investigate other methods of storing and exploring the data.

## Actionable Insights

### Technology Choice

Actionable insights can be gleaned from this model by inspecting the relevant weights of the coefficients associated with the feature sets. As a result, merely having them present is good enough. Watson Studio is fully capable of displaying the model equation and the work leading up to it.

### Justification

See above.

## Applications / Data Products

### Technology Choice

There is no application resulting from this work. The only output is a functional representation of the model.

### Justification

By necessity, a linear model is an equation. Therefore, there is nothing but the functional representation to obtain at the end.