# R&D Team Objectives for 2017 (Mar.1.2017 to Oct.30.2017)

For 2017, the Advanced Analytics R&D team would like to develop a customer presentation were we produce advanced analytics and visualizations in multiple platforms.

The presentation goal is to demonstrate the value of using advanced analytics using nontraditional platforms and new technologies as well as conveying the message that at Momentum we are evolving with industry trends and that we have the skills necessary to deliver results using these technologies.

At this time I think we need to include these topics on the presentation.

* Frame efforts to methodology where Business benefit is central
* Describe technologies used
* Describe Analysis efforts and Results
* Include Tableau and R visualizations
* Why Momentum

# Team Members

We don’t have individual assignments to team members yet. Some team members are members of multiple R&D groups and we hope to reuse some of the work in all teams.

These are the people that showed interest on working on this area:

* Elizabeth Miller
* Michael Gonzalez
* Lauren Berleue
* Selvakumar Gunasekaran
* Irene Statkus

# Scope

Specifically we selected two datasets to analyze:

* Ordering System database and Census data used by the Cloud group on AWS
* Airline and flight statistics from the Bureau of Transportation and Statistics

We would like to develop expertise with the following platforms and technologies:

* Hosted by AWS against redshift using R and Tableau
* Hosted AWS VM, using SQL Server 2016 R and Tableau
* Momentum Cloudera Hadoop cluster using R Studio and Tableau

We are thinking we will utilize GITHUB as project repository.

Also, we may decide to use SPSS, IBM Cognos Analytics and Watson Analytics if we deem it is beneficial for some tasks.

Several tasks will be required once we start working on the plan:

* Data exploration using graphical tools like tableau
* Data exploration using modeling tools like R
* Modeling and Data loading into different platforms
* Advanced Analytics models using R Studio
* Load data into Cloudera Hadoop cluster
* Learn how to use R within SQL Server 2016 on AWS
* Use Tableau and R with RedShift
* Learn how to use GITHUB

We selected two datasets and multiple platforms and technologies to accomplish our goal. Clearly resources availability and involvement will determine how much we can accomplish. The end goal is to produce a presentation that will vary is its contents depending on how much work we can produce.

PLAN:

February:

We spent February looking for data sets that we could use for analysis. This was a difficult effort and we may put together a “lessons learned” summary because we turned many stones and found several dead ends.

March

Start working towards loading Aviation data.

Get understanding of AWS environment and start reviewing Ordering System created by Cloud Team

Build plan to create PA model and build presentation

April, May, June

Data Exploration

Define Business Framework for Analysis

Create Models

July

Test Adjust model

August

Presentation Preparation

September

Organize and present case