**Project Charter**

**Business background**

* Who is the client, what business domain the client is in.
* What business problems are we trying to address?

**Scope**

* What data science solutions are we trying to build?
* What will we do?
* How is it going to be consumed by the customer?

**Personnel**

* Who are on this project:
  + Microsoft:
    - Project lead
    - PM
    - Data scientist(s)
    - Account manager
  + Client:
    - Data administrator
    - Business contact

**Metrics**

* What are the qualitative objectives? (e.g. reduce user churn)
* What is a quantifiable metric (e.g. reduce the fraction of users with 4-week inactivity)
* Quantify what improvement in the values of the metrics are useful for the customer scenario (e.g. reduce the fraction of users with 4-week inactivity by 20%)
* What is the baseline (current) value of the metric? (e.g. current fraction of users with 4-week inactivity = 60%)
* How will we measure the metric? (e.g. A/B test on a specified subset for a specified period; or comparison of performance after implementation to baseline)

**Plan**

* Phases (milestones), timeline, short description of what we'll do in each phase.

**Architecture**

* Data
  + What data do we expect? Raw data in the customer data sources (e.g. on-prem files, SQL, on-prem Hadoop etc.)
* Data movement from on-prem to Azure using ADF or other data movement tools (Azcopy, EventHub etc.) to move either
  + all the data,
  + after some pre-aggregation on-prem,
  + Sampled data enough for modeling
* What tools and data storage/analytics resources will be used in the solution e.g.,
  + ASA for stream aggregation
  + HDI/Hive/R/Python for feature construction, aggregation and sampling
  + AzureML for modeling and web service operationalization
* How will the score or operationalized web service(s) (RRS and/or BES) be consumed in the business workflow of the customer? If applicable, write down pseudo code for the APIs of the web service calls.
  + How will the customer use the model results to make decisions
  + Data movement pipeline in production
  + Make a 1 slide diagram showing the end to end data flow and decision architecture
    - If there is a substantial change in the customer's business workflow, make a before/after diagram showing the data flow.

**Communication**

* How will we keep in touch? Weekly meetings?
* Who are the contact persons on both sides?