

Project Charter

Full Contact

Prepared by Remote Contact

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1. Introduction

Executive Summary

- FullContact is leading the charge in the changing identity resolution field. With their data graph, built with over a terabyte of raw contact fragments, they can help brands create better relationships with both customers and prospects.
- Maintaining FullContact's identity graph is extremely important for accessibility and scalability. Tweaks to the algorithms responsible for pruning and tuning edges in the graph are made constantly to improve query recall and precision.

Business Problems/Opportunities

- As graph related systems become increasingly complex, it becomes increasingly difficult to track what changes caused an effect.
- Identifying changes which lead to an issue in the graph must be manually investigated by an Engineer.
- In order to better understand the graph and track issues, FullContact should implement a way to monitor new inputs and their effects on the graph.

2. Objectives and Scope

Business Objectives

- Create an application that tracks the flow of data through a pipeline of data processing jobs in FullContact's Identity Graph:
 - System that allows FullContact to more systematically and scientifically analyze the impact of changes they make on the graph
 - Help FullContact more effectively identify root causes of issues in the graph
 - When a change is made to the inputs, effects of that change can be determined
 - If issues arise with clusters in the graph, root cause can be determined
 - Provide accurate insights into the nature of the graph without waiting for an engineer to manually investigate

High Level Requirements

- Web-hosted user interface: Available internally on FullContact's AWS-hosted cloud infrastructure and presents a UI to make common queries easy
- Big Data Scale: Operate on multiple-terabyte datasets of parquet and sequence files
- Cost: Run on <\$500 of AWS resources per month
- Interactive: Respond to user queries in minutes, rather than hours or days
- Bidirectional: Allow users to generate insights on graph behavior using either input records or output clusters as a starting point

Project Scope

In Scope:

- A web-based UI that allows FullContact employees to make queries on data points
 - Hosted on AWS cloud infrastructure

- Per month cost of AWS infrastructure should be no more than \$500
- Interactive UI should give a response to queries in a relatively short period of time (minutes)
- Interactive UI should give a response to queries in a relatively short period of time (minutes)
- The application should allow for user generated insights with the input records or output clusters as the starting point

Out of Scope:

- Any other business areas beyond those mentioned above

3. Project Approach

General Approach – Solution Delivery Process

- Each in-development feature will be addressed separately each meeting
- Difficult solutions for each area will be documented through Slack. FullContact management will review our work and advise improvements before implementations.
- At each meeting an implementation plan for each problem will be created to follow.

Assumptions

- Once a preferred solution is identified, FullContact senior management will maintain full support for the implementation plan.
- Implementation will be done together to execute each plan.

Project Risks and Issues

- Solutions to the business problems/opportunities described in section 1 above will introduce significant change into parts of the organization. Last second changes will be addressed and first priority until criteria is met. Failure to communicate this correctly may result in project issues.
- During this project, as issues arise that put the success of the project at risk, the issues and risks will be documented in an issue tracking system and tracked through resolution.

Project Changes

- Changes to the project's scope and requirements will be reviewed by the project governance team. This team will assess the potential impact of the change on schedule and resources, then provide a decision for approval/disapproval. All scope/requirements changes will be documented via email.

4. Project Plan

Key Deliverables

1. Project Charter (this document)

2. Project Plan, containing:

- Detailed list of tasks and features
- Third party management software
- Risks involved
- Develop team

3. Architecture Design, containing:

- Detailed list of technologies used
- Architecture diagram/layout

4. Rudimentary Code

- Code that can analyze the graph and trace the path of a datapoint
- Not expected to be automated or holistic yet

5. Process tracing is documented

- Expected to be still manual for process tracing
- tracing of a datapoint is documented and ready for use

6. Web UI

- UI for project is deployable

7. Project Deployment

- Deploy software to Full Contact

Timeline

<u>Deliverable</u>	<u>Due Date</u>
Project Charter	October 11, 2020
Project Plan	October 19, 2020
Architecture Design	October 26, 2020
Rudimentary Code	Late November, 2020
Process Tracing	Late December, 2020
Web UI	March, 2021
Solution Construction and Testing	April, 2021

Preliminary Cost Estimates

Hardware/Software Costs	Estimate
Amazon Web Services	~\$100 month

5. Key Stakeholder Roles & Responsibilities

<u>Stakeholder</u>	<u>Role/Responsibility</u>
Alan Paradise	Instructor
Joewie Koh	TA
Jack Kelly	Sponsor
Valyria McFarland	Team Member
Jonathan Bluhm	Team Member
Joshua Hamel	Team Member

Liam McCarthy

Team Member

Neil Borde

Team Member

Robert Sarno

Team Member

 Valyria McFarland 10/14/2020	 Joshua Hamel 10/14/20
 Liam McCarthy 10/15/2020	 Robert Sarno 10/15/2020
 Neil Borde 10/15/2020	 Jonathan Bluhm 10/15/2020
 Jack Kelly 10/23/2020	