

Practicum

DS4A / Colombia 2020

FINAL PROJECT: CONTEXT

The main deliverable of the course

Designed for participants to apply and showcase their data science skills learned through this program

For your Project, you will either complete one submitted by a Colombian entity or your group will choose your own

Details are in the Participant Welcome Packet

Timing for Final Project

Participants should be working on the final projects during class days

In the last two weeks of the course, it is expected that your team works independently on the project, but you will have access to the TAs

CERTIFICATION REQUIREMENTS

To receive certification, your team must have achieved all of the milestones

It is important that you make a meaningful contribution to the project. This is a requirement for receiving your certification at the end of the program

Project Selection Process

On Friday, September 4th, we will share with you the available projects from Colombian entities and additional details

You will be able to indicate your preferences for the projects on the list

If you are interested in doing a custom project, you will be able to propose that as well

Correlation One will perform matchmaking to match all teams with a project, which will be announced before Week 3

FINAL PROJECT: DELIVERABLES

Deliverables: A production level application, a final report, and a presentation

Interactive Front-End: A non-technical user should be able to use this to get meaningful outputs and visualizations. The target audience is either the Colombian entity, or your own pre-decided audience discussed with your TA

AWS-hosted Database: This should persist all relevant data, and supply it to the front-end

AWS-hosted Data Analysis & Computation: These should perform all computation on the data itself that is relevant to the application. They can be structured in a manner of the team's choice - microservices, scripts, etc. However, they must live in and run off of the AWS compute engine (NOT a local machine)

SCOPE OF THE PROJECT

Scoping your project is key to success. It involves the following:



Having a clear mental map of what you want to achieve



Clearly estimating of how long each step will take you to accomplish



Having a time table so you can deliver this on time

Important: You should get approval from your respective TAs about your project scoping plan by the end of week 4 before going any deeper into the analysis.

SCOPING FOR THE FINAL PROJECT

This scoping document will be fairly involved, and should include:

Your team's problem you set out to solve (multiple versions, starting from V1 (minimal viable products), and work your way up to more ambitious versions


High-level overview of how your application plans on solving this problem

Outline of who the primary users would be and how they would interact with the app

Descriptions of app features

The datasets your team is planning on using

How you plan on using each of these datasets in your app



FINAL REPORT AND JOURNALING

The main way of documenting your progress will be through your report. It will be a living document that will detail your projects progression and document the findings of the project. To goal is to continuously add to it weekly and be deliver it to your company alongside the app as a formal document of the project.

You will have submit your report weekly to the website for review by your TA

PROJECT PRESENTATIONS

The last two weeks of classes has no instruction. All of the time will be dedicated to working on the projects.

The last day will involve the final project presentations.

Each team will have the opportunity to present to their peers and analyze other teams' presentations

Teams working on projects for Colombian entities will also have an opportunity to present their projects to their respective entities

MILESTONES - Application

WEEKS 1 & 2

Start on Idea Formation

Indicate project preferences

WEEK 3 & 4

Start to source data

Complete Scoping Work

WEEK 5

Datasets sourced



Application (CONTINUED)

WEEK 6

Basic EDA of the datasets with the goal of prioritizing which ones will be used
Cleaning of these datasets

WEEK 7

More in-depth EDA of the datasets
Jupyter notebooks of the analysis to be shown to your TA
Mockup of front end design

WEEK 8

Design of the front end should be completed and shown to your TA
Back end infrastructure design

Application (CONTINUED)

WEEK 9

Databases hosted in the cloud. Proof of which must be shown to your TA

Front end infrastructure complete

WEEK 10

Application complete

Application (CONTINUED)

WEEK 11

The application should be live on the internet with every component working as expected

Review analysis and documentation

WEEK 12

Presentations

MILESTONES - Report

You should be updating your report continuously throughout the program in-line with your app development

Week 3 start your report with the project scoping

Each week, you will add to your report based on the application milestone and work you have completed for that week

By Week 11, all you should have to do is clean up your report and write an executive summary.

MILESTONES - Presentation

WEEK 9

Preliminary presentation outline to be shown to the TA

WEEK 10

Presentation draft completed

WEEK 11

Final presentation completed based on TA feedback

Presentation run-through with the TA during office hours

WEEK 12

Final presentation given to Correlation One & your peers

(If applicable) Final presentation given to Colombian entity

