David Gayman

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ATLAS Analysis

Project Plan

# Overview

# Goals & Tasks

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Deadline | Category | Goal # | Goal Priority | Goal | Task # | Task Priority | Task | Assignee |
| 1/1/2020 |  |  |  |  |  |  |  |  |
|  | Data Ingestion |  |  | Needed raw data files collected. |  |  | Configure repository. |  |
|  |  |  |  |  |  | Get sales data into raw data directory. |  |
|  |  |  |  |  |  | Get marketing communications/attempts/responses into raw data directory. |  |
|  |  |  |  |  |  | Get lists of schools that are customers into raw data directory. |  |
|  |  |  |  |  |  | Get List of all schools that are possible customers into raw data directory. |  |
|  |  |  |  |  |  | Get school locations into raw data directory. |  |
|  |  |  |  | Data ingestion implemented. |  |  | Read raw files into DataFrames. |  |
|  |  |  |  |  |  | Perform basic cleanup (nulls, invalid characters, etc.). |  |
|  |  |  |  |  |  | Perform advanced cleanup (collect/combine/pre-process). |  |
|  |  |  |  |  |  |  |  |  |
|  | Data Processing |  |  | Infrastructure implemented. |  |  | Implement infrastructure to provide data access to all developers. | David |
|  |  |  |  |  |  |  | Implement infrastructure to provide collection and handling of processing artifacts (processed data, metrics, and plots -> multiple dashboards, compiled reports). | David |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  | Data Processing |  |  | Sales Forecasting |  |  | Implement Monte-carlo-based sales forecasting procedure and plots. | Milad & Jonathan |
|  |  |  |  |  |  | Implement legacy sales forecasting procedure and plots. | Milad & Jacinta |
|  |  |  |  |  |  |  |  |  |
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|  | Data Analysis > Infrastructure |  |  | Implement data ingestion including basic cleanup. |  |  |  |  |
|  |  |  |  |  |  |  | Ingest data |  |
|  |  |  |  |  |  |  | Clean data |  |
|  |  |  |  |  |  |  |  |  |
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|  | Data Analysis |  | 1 |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  | Data Analysis |  | 2 |  |  |  |  |  |
|  | Data Analysis |  | 1 | Simple sales analysis: Which quarters, years etc. have the highest sales; highest growth. |  |  |  |  |
|  | Data Analysis |  | 3 |  |  |  |  |  |
|  | Data Analysis |  |  | *Drop-down menu for college names - show sales and various detailed figures in panel.* |  |  |  |  |
|  | Data Analysis |  | 1 | Trends showing comparison to other educational services |  |  |  |  |
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|  | Deliverables |  | 1 | Provide a dashboard display containing organized plots and data. |  |  |  |  |
|  | Deliverables |  | 1 | Provide a report containing the analysis and conclusions. |  |  |  |  |
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|  | TODO MVC description (0) |  |  |  |  |  |  |  |
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|  | Analysis Conclusions |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  | Basic analysis & conclusions |  | 2 | Answer: "What conclusions can be reached by analyzing the trends in comparison to other educational services?" | All |
|  |  |  |  | 1 | Answer: "What actions can be taken to increase sales? (suggestions: Send more/better targeted emails, phone calls, target certain types of customers, would this be applicable to ...)" |  |
|  |  |  |  |  |  |  |  |
|  |  |  | Conversion rate analysis. |  | 1 | Answer: "What is the length of time between initial contact and purchase decision?" | Ibrahima & David |
|  |  |  |  | 1 | Answer: "What is the initial purchase conversion rate based on marketing/sales communications?" | Milad & Jonathan |
|  |  |  |  | 1 | "What is the upgrade conversion rate (from 3-months to 6-months to 1-year)?" | Milad & Jonathan |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  | Jacinta & David |
|  |  |  |  |  |  |  |  |
|  |  |  | Sales Forecasting |  | 1 | Answer: "Taking into account both legacy and Monte-Carlo analyses, what sales are predicted for each quarter through end of 2021?" | Milad & Jonathan |
|  |  |  |  |  |  |  |
|  |  |  | Customer & Market Analysis |  | 2 | Answer: "What market penetration does the company have into each group of schools (ivy league, state schools, community college, high schools, etc.)" |  |
|  |  |  |  | 1 | Answer: "What market penetration does the company have regionally?" |  |
|  |  |  |  | 3 | Answer: "Are you targeting the highest-responding customers?" |  |
|  |  |  |  |  |  |  |  |  |
|  | Deliverables |  |  | Final Report |  |  | Identify and describe the conclusions of the analysis. | All |
|  |  |  |  |  |  |  | Describe the specific analysis procedure used to support the analysis. | All |
|  |  |  |  |  |  |  | Document the specific data sources, resources, links, etc. that were used for analysis, in the appendix. | All |
|  |  |  |  |  |  |  | Provide report introduction, table of contents, conclusion, and appendix. | Milad |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  | Dashboard |  |  | Collect & organize plots into one or more dashboards. | All |
|  |  |  |  |  |  | Implement served/hosted dashboard? |  |
|  |  |  |  |  |  | Document how to access the hosted dashboard (if applicable). |  |
|  |  |  |  |  |  | Package the dashboard solution in the deliverable zip file. |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  | Source code |  |  | Package the source code in the deliverable zip file. |  |
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|  |  |  |  | Processing artifacts |  |  | Implement data dumps for all critical plots. |  |
|  |  |  |  |  |  | Package the important processing artifacts in the deliverable zip file. Examples include key metrics, statistics, data dumps, etc. |  |
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