

The Dilemma



Get Files

bit.ly/BranchData

What is the...



Mission:

We strive to build a community where everyone can thrive by nourishing, educating, and equipping our neighbors.



At The Branch, they recognize that people flourish in community, but there are social, financial, religious, political, and ethnic division. These differences can make finding a real community difficult. They are working to form the bonds of friendship, so that everyone at The Branch has a voice, acceptance, and welcome.

Services:

Two week Food Service
2021: Ave. 943 families/month
2022: Ave. 1192 families/month

ESL Classes (English as a 2nd Language)

Community Events

What is the dilemma?

Based on what you hear, research, and see in the data - what is your one dilemma that you plan to address?

- Client Personas
 - What does a typical person/family represent
 - Clusters, summaries, etc.
- What leads to sustained need?
 - Are there factors that lead to longterm need for food?
- What additional services can be offered?
 - Based on the client data and the surveys.

Your dilemma

Use the problem statement to craft the dilemma, goal, objectives, data, and expected deliverables

The Data



Get Files

bit.ly/BranchData

What is the...



Mission:

We strive to build a community where everyone can thrive by nourishing, educating, and equipping our neighbors.



The Main Folder :

File Name	Description
Branch_Hackathon_Link2Feed.xlsx	Worksheet: Link2Feed_data - Dataset consisting of all clients of The Branch between June 1, 2021 and September 30, 2022 (n = 4,695), with aggregated visit data (see 'visit_count' field in column C).
Branch_Hackathon_Survey.xlsx	Full results from The Branch Survey for n = 126 respondents. For clients that could be matched to the Link2Feed dataset, the 'Client ID' is populated in column A.
Branch_Hackathon_Link2Feed.csv	Full Link2Feed dataset for all Branch clients between June 1, 2021 and September 30, 2022, matching Link2Feed excel file, except this file does not contain survey results. See excel file's 'Data_Dictionary' tab for field descriptions.
Branch_Hackathon_Survey.csv	Full survey results, matching data in Survey excel file.
TheBranch_ClientVisits.csv	Details for each client visit between June 1, 2021 and September 30, 2022, including visit date, reason and referral information.
BranchClusterAnalysis.xlsx	Includes the data and the statistics from the cluster analysis that created Group03 (3 clusters using K-Means), Group04 (4 clusters using K-Means), Sustained Clients, and OneAndDone Clients. All are explained in this file.

PythonAnalysis Folder includes 3 Python notebook files that walk you through cluster analysis and classification models for Sustained Client and 1 and Done.

Data Hackathon for Good

The Insights



Clusters/Groups of Clients (out of 4965)

Sustained Client

	No	Yes
Count	3473	1222
No. Visits	2.04	8.40
Age	40.81	47.94
Income	\$1,396.75	\$1,322.86
House Total	3.2	3.0
Asian	3.1%	2.5%
Black	11.5%	15.7%
Hispanic	52.0%	35.8%
MidEast	17.9%	26.4%
White	11.3%	15.5%

One and Done Clients

	No	Yes
Count	3210	1485
No. Visits	4.71	1
Age	43.99	39.79
Income	\$1,358.52	\$1,418.59
House Total	3.03	3.28
Asian	2.6%	3.7%
Black	13.6%	10.6%
Hispanic	43.8%	56.4%
MidEast	22.7%	14.5%
White	13.1%	10.9%

Cluster Analysis (Group03)

Groups	0	1	2
Count	1047	1973	1675
No. Visits	3.12	5.07	3.51
Age	28.92	66.39	44.08
Income	\$1,406.49	\$1,243.69	\$1,426.75
House Total	3.2	2.4	3.5
Asian	3.3%	2.6%	2.6%
Black	6.0%	31.5%	8.7%
Hispanic	56.5%	23.9%	52.5%
MidEast	20.8%	16.1%	21.8%
White	8.5%	23.5%	10.0%

Cluster Analysis (Group04)

Groups	0	1	2	3
Count	1516	1691	838	650
No. Visits	3.08	4.03	3.48	5.42
Age	27.87	55.23	40.41	71.06
Income	\$1,388.87	\$1,358.53	\$1,439.68	\$1,221.57
House Total	3.0	3.0	3.7	2.2
Asian	2.4%	1.9%	4.1%	2.9%
Black	5.8%	18.4%	7.4%	36.1%
Hispanic	57.2%	37.2%	54.7%	20.1%
MidEast	21.1%	18.5%	21.1%	17.1%
White	8.3%	19.8%	8.8%	21.9%

Data Hackathon for Good

The Insights



Classification Modeling

Sustained Client

	Pred No	Pred Yes	Score
Actual No	961	66	0.8375
Actual Yes	163	219	

Importance	Features
0.152887	reason_Ongoing Need
0.143907	reason_Wages Issue
0.109136	Client Age
0.058044	Income
0.040572	reason_Unemployed
0.028078	household_total
0.022707	agecat_Adult
0.021728	rel_child
0.019215	minor
0.018595	reason_Immigration
0.016830	ethnic_Hispanic
0.016220	reason_Undisclosed
0.015642	reason_Relocation
0.015127	agecat_Under 10
0.014927	Educ_HS_degree
0.014307	Female
0.014007	agecat_10 to 17
0.012935	Male
0.012490	reason_Natural Disaster
0.011048	Employ_none

One and Done Clients

	Pred No	Pred Yes	Score
Actual No	788	183	0.7466
Actual Yes	174	264	

Importance	Features
0.143493	reason_Ongoing Need
0.125628	Client Age
0.094322	reason_Wages Issue
0.078121	Income
0.035896	household_total
0.030774	agecat_Adult
0.029141	reason_Unemployed
0.028620	rel_child
0.024163	minor
0.023707	agecat_Under 10
0.020527	agecat_10 to 17
0.018808	Educ_HS_degree
0.015736	ethnic_Hispanic
0.015426	Female
0.014945	Male
0.014659	single
0.014479	rel_other_relative
0.014280	Employ_full_time
0.013512	married
0.013311	Educ_no_degree



The Action

bit.ly/BranchData

What is the Data Story and its Actionable Next Steps

Anecdotal Story

Put a human face to your dilemma, keep it rooted in a compelling story.

Data Insights

What insights from your data lead to an actionable solution.

Actionable Solutions

What next steps or actions would you recommend based on your data nuggets.

Data Hackathon Deliverable

With visuals or slides, craft a story that give insights into your dilemma and then provide actionable next steps. Your presentation must be clear, concise, and less than 5 minutes.