

# Google Fiber BI Project Executive Summary

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## Business Needs

The Google Fiber customer service team's goal is to determine how often customers are calling customer support after their first inquiry; this will help leadership understand how effectively the team is able to answer customer questions the first time.

## Project Goals

Create a dashboard that will:

- Facilitate the team's understanding of how often customers are calling customer support after their first inquiry.
- Provide insights into the types of customer issues that seem to generate more repeat calls
- Export repeat caller trends in the three different market cities
- Design charts so that stakeholders can view trends by week, month, quarter, and year.

## Solution

Visualize the data to make a dashboard tool for Google Fiber's customer service team.

## Key Details of the ETL Pipeline Process to enable the solution

- Three CSV files are provided:
  - o [Market 1](#)
  - o [Market 2](#)
  - o [Market 3](#)
- Main Storage System: Google BigQuery
- SQL query for the extraction phase of ELT (Extract, Load, and Transform)
- Kaggle Python notebooks for the transform phase of ELT
- Tableau tools to build the dashboards

## Dashboard Highlights

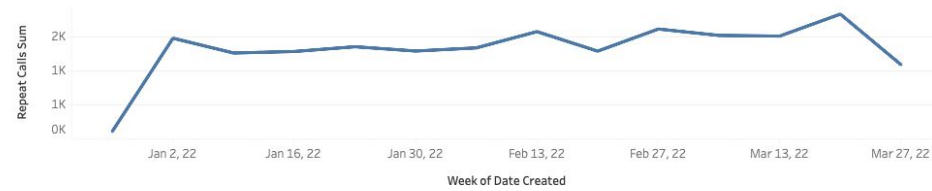
- Tableau Link: Google BI Project Google Fiber ([https://public.tableau.com/app/profile/chungchen.ran/viz/GoogleBIProjectGoogleFiber\\_17156371082980/GoogleBIProjectGoogleFiber](https://public.tableau.com/app/profile/chungchen.ran/viz/GoogleBIProjectGoogleFiber_17156371082980/GoogleBIProjectGoogleFiber))
- Dashboard capabilities
  - o Line Charts for Repeat Calls by Initial Call Date/Week/Month/Quarter
  - o Table for All Repeat Calls organized by Market and Problem Type
  - o Heat Map for First Day Repeat Calls organized by Market and Problem Type
- Important Screenshots: (turn to next page)

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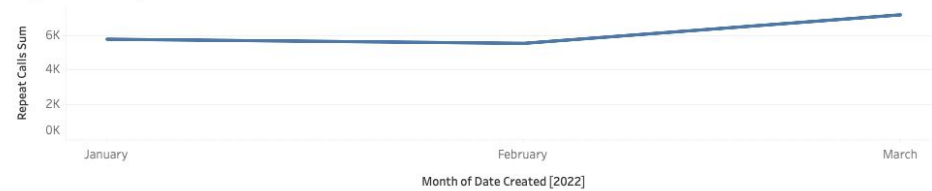
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Repeat Calls by Initial Call Week



Repeat Calls by Initial Call Month



Repeat Calls by Initial Call Quarter



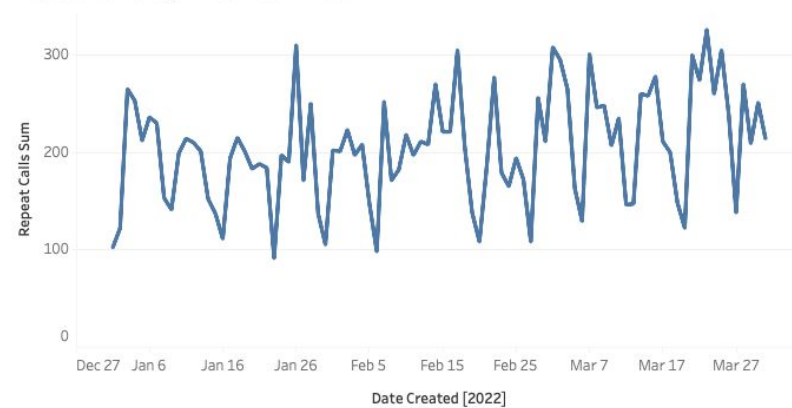
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Date Created

Last 4 years

Repeat Calls by Initial Call Date



Market and Problem Type  
of First Day Repeat Calls

New Type	New Market		
	market_1	market_2	market_3
type_1	221	9	39
type_2	1,180	105	136
type_3	141	2	110
type_4	18	0	2
type_5	1,806	141	1,352

Calls by Market and Type

Date Created	New Market	New Type	
1/1/2022	market_1	type_1	10
		type_2	19
		type_3	1
		type_4	0
		type_5	48
	market_2	type_1	0
		type_2	8
		type_3	0
	market_3	type_4	0
		type_5	5
1/2/2022	market_1	type_1	2
		type_2	1
		type_4	0
		type_5	8
	market_2	type_1	12
		type_2	28
		type_3	4
		type_4	0
		type_5	52
	market_3	type_1	1
		type_2	7
		type_3	0
		type_4	0
		type_5	5
1/3/2022	market_1	type_1	1
		type_2	2
		type_3	0
		type_4	0
		type_5	10
1/3/2022	market_1	type_1	24
		type_2	79
		type_3	5
		type_4	1