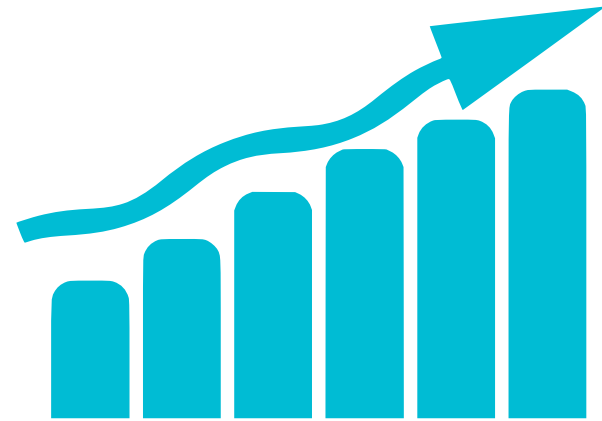


Dental21

Estimated Revenue and Unique
Patient Count-2023



Sruthy Sreekanth

Overview

Objective:

- The task is to estimate how much revenue Dental21 can expect in 2023 and how many distinct patients they will have gained by the end of 2023.

Scope:

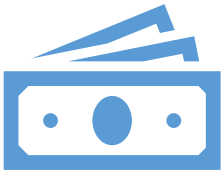
- There are currently two clinics in operation, and two more will open in March 2023 and July 2023, respectively.

Steps Followed:



Exploratory Data Analysis – Existing Clinics

- This Analysis was conducted in Excel and certain exploratory analysis steps can be alternatively performed in SQL.
- The SQL EDA queries can be found in the attached SQL file.
- The detailed analysis and the forecasting steps can be found in the attached Excel sheet.
- The following analysis was carried out on the existing clinics data provided for this project.

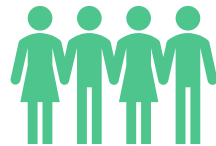


Revenue

Revenue per Clinic

Revenue per Practitioner

Revenue per Month- 2022



Unique Patients with Repetition

Unique Patient count per Clinic

Unique Patient count per Practitioner

Unique Patient count per Month-2022



New Patients without Repetition

New patients count per month-2022

New patient count per clinic

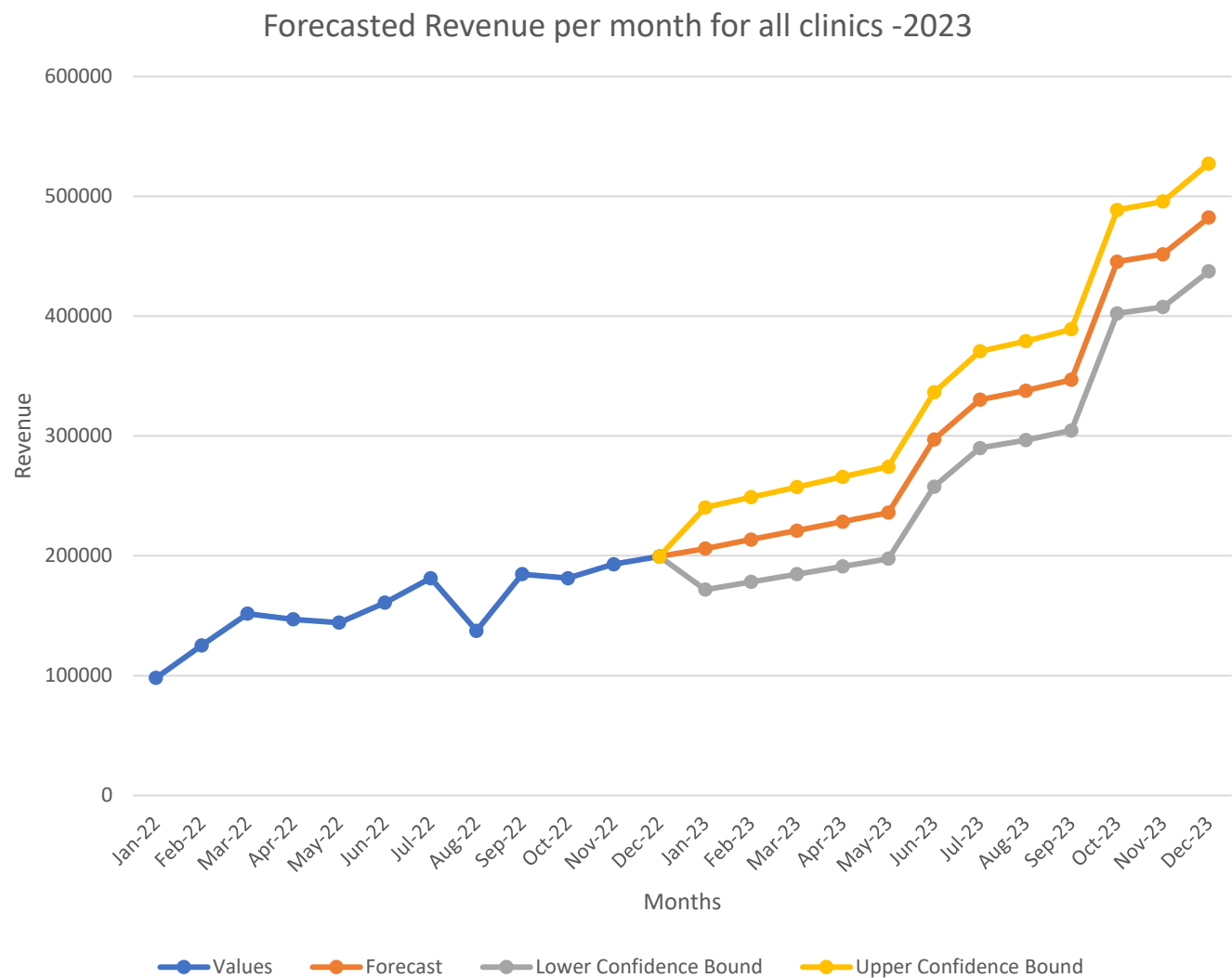
Assumptions

- New stores may take some time to reach their full revenue potential. So assumed 3 months Ramp-up period for new clinics .
- Took revenue of the low performing clinic (clinic1) as the Benchmark for analyzing revenue.
- Took count of patients of the low performing clinic (clinic1) as the Benchmark for analyzing patient count.
- Assumed performance during the ramp-up period to be zero revenue and zero patients.
- This can vary based on the factors such as the potential customer base, market conditions, competition, and marketing strategies.
- Added the estimated revenue from the new stores to the forecasted revenue of the existing stores for each respective period.

The following analysis was carried out based on the above assumptions

Forecast Revenue for all clinics-2023

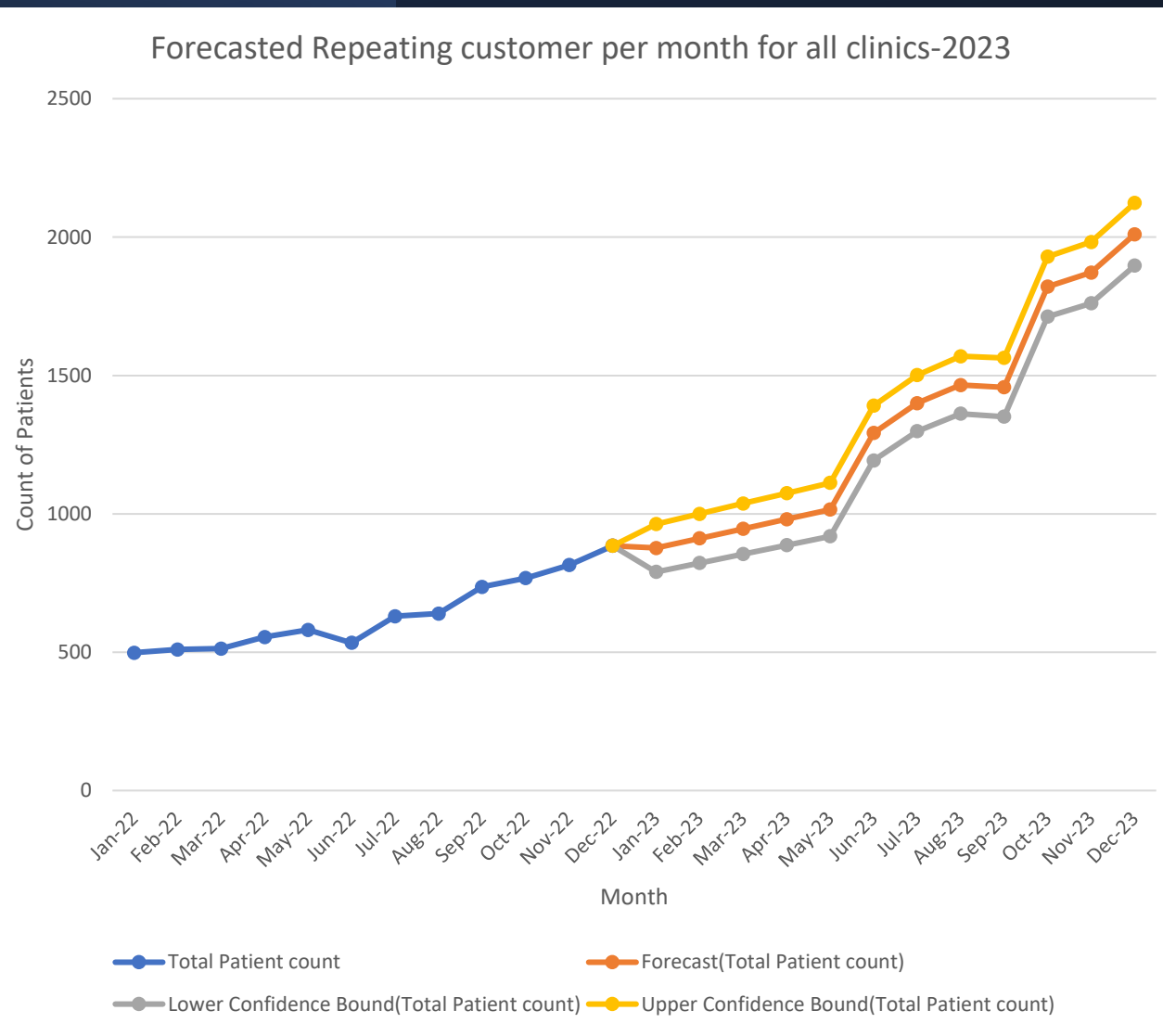
Timeline	Values	Benchmark Revenue	Forecast	Lower Confidence Bound	Upper Confidence Bound
Jan-22	98149.78				
Feb-22	125227.6				
Mar-22	151705.9				
Apr-22	146936.5				
May-22	144192.1				
Jun-22	160837.7				
Jul-22	181325.6				
Aug-22	137464.6				
Sep-22	184714.9				
Oct-22	181327.7				
Nov-22	193002.8				
Dec-22	199389		199388.97	199388.97	199388.97
Jan-23		0	206032.08	171748.60	240315.56
Feb-23		0	213518.05	178171.11	248864.98
Mar-23		0	221004.02	184616.58	257391.46
Apr-23		0	228489.98	191083.04	265896.93
May-23		0	235975.95	197568.81	274383.10
Jun-23		53689	297150.92	257761.38	336540.47
Jul-23		79371.47	330319.36	289963.88	370674.83
Aug-23		79411.48	337845.34	296539.22	379151.46
Sep-23		80940.525	346860.35	304617.81	389102.89
Oct-23		172095.24	445501.03	402335.35	488666.72
Nov-23		170838.48	451730.24	407653.83	495806.66
Dec-23		194016.67	482394.4	437418.89	527369.91



Forecast the count of repeating patient for all Clinics – 2023

(Repeating patient is someone who consulted the doctor more than one time in a year)

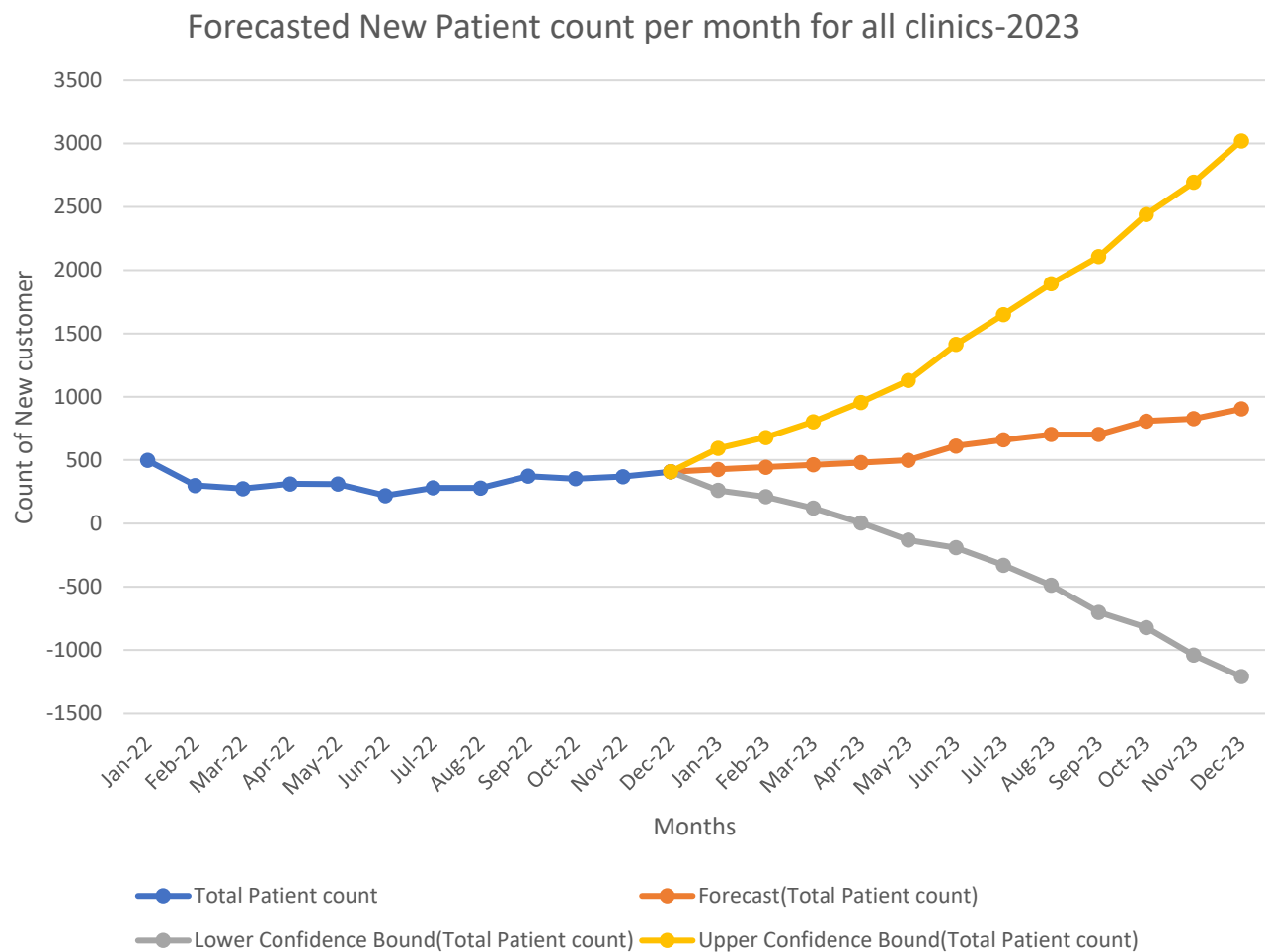
month	Total Patient count	Benchmark patient count	Forecast(Total Patient count)	Lower Confidence Bound(Total Patient count)	Upper Confidence Bound(Total Patient count)
Jan-22	498				
Feb-22	510				
Mar-22	513				
Apr-22	555				
May-22	581				
Jun-22	534				
Jul-22	630				
Aug-22	640				
Sep-22	736				
Oct-22	768				
Nov-22	815				
Dec-22	885		885	885	885
Jan-23		0	877	791	963
Feb-23		0	911	823	1000
Mar-23		0	946	855	1038
Apr-23		0	981	887	1075
May-23		0	1016	919	1112
Jun-23		242	1292	1193	1391
Jul-23		315	1400	1299	1501
Aug-23		346	1466	1362	1569
Sep-23		303	1457	1351	1563
Oct-23		632	1821	1713	1929
Nov-23		648	1872	1761	1982
Dec-23		752	2010	1897	2123



Forecast the count of new patient for all Clinics – 2023

(A patient’s first visit to the clinic is considered as a new customer)

month	Total Patient count	Benchmark Newpatients	Forecast(Total Patient count)	Lower Confidence Bound(Total Patient count)	Upper Confidence Bound(Total Patient count)
Jan-22	498				
Feb-22	299				
Mar-22	275				
Apr-22	312				
May-22	310				
Jun-22	220				
Jul-22	280				
Aug-22	279				
Sep-22	373				
Oct-22	353				
Nov-22	369				
Dec-22	408		408	408	408
Jan-23		0	426	261	592
Feb-23		0	445	210	679
Mar-23		0	463	121	804
Apr-23		0	481	5	956
May-23		0	499	-132	1129
Jun-23		94	611	-192	1413
Jul-23		125	660	-330	1649
Aug-23		150	703	-488	1893
Sep-23		132	703	-701	2107
Oct-23		220	809	-821	2439
Nov-23		220	827	-1040	2694
Dec-23		280	905	-1209	3019



Insights

- Projected Revenue by the end of 2023: 3996210.7
- Projected Unique customers acquired by the end of 2023 : 7531
- Projected Repeated customers acquired by the end of 2023: 16049
- *Note: In some instances on Slide 7, the Lower Confidence Bound (Total Patient count) is displayed as negative. This is because there is not enough information available on the new patients from 2021. All patients in January 2022 were treated as new patients because the data wasn't accessible until that month, which caused the column to have a negative value.*

Final Notes

- Validate and refine the forecast: Continuously monitor and compare the forecasted revenue against the actual revenue as 2023 progresses. If necessary, make adjustments to the forecast based on the real-world performance of the existing and new clinics.
- Forecasting is inherently uncertain, and the accuracy of the forecast depends on the quality of the data, assumptions made, and the dynamic nature of the business environment.

Thank you