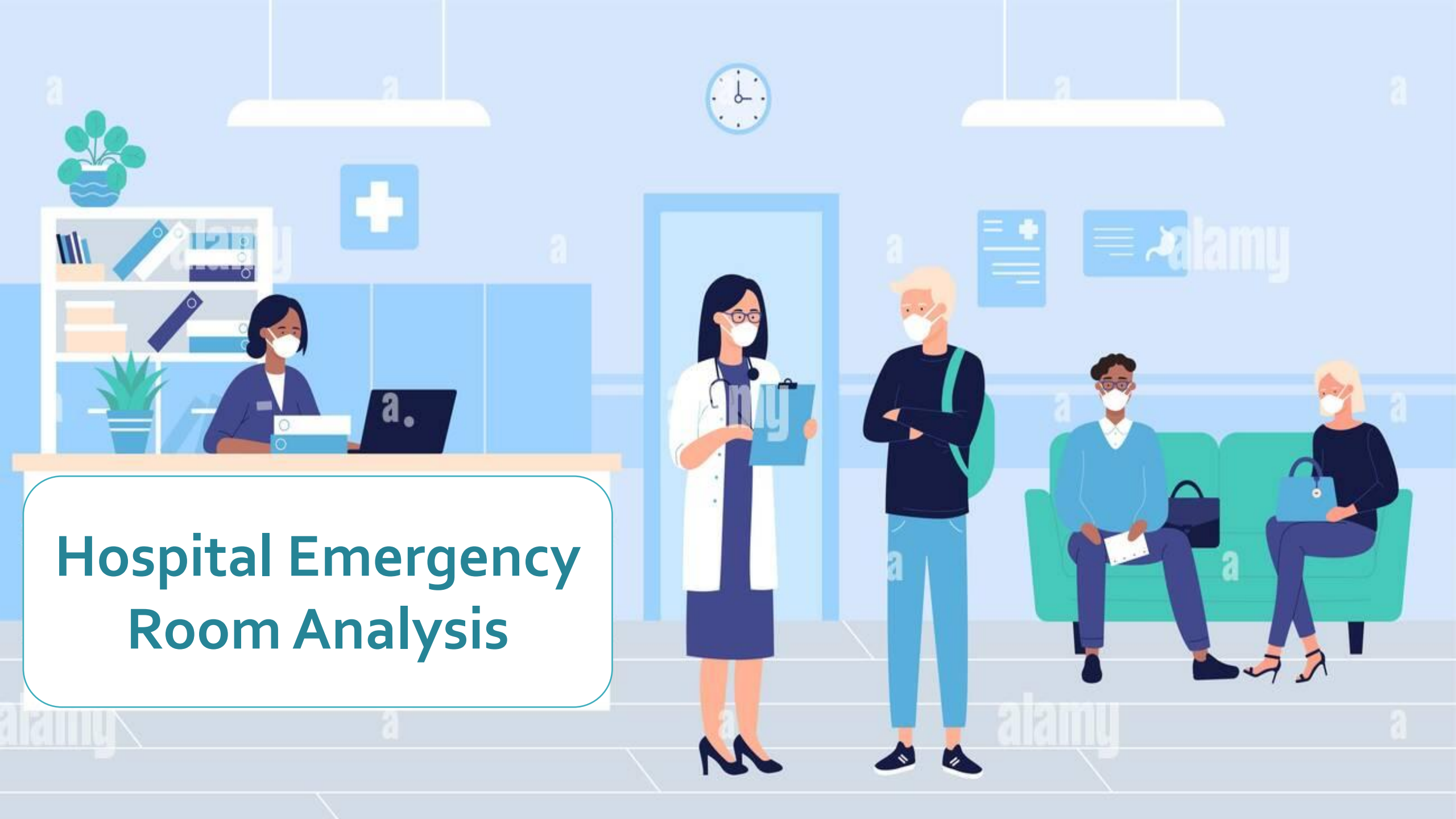


Hospital Emergency Room Analysis

HOSPITAL EMERGENCY ROOM ANALYSIS

PRESENTED BY MAYANK KUMAR

PURPOSE OF PROJECT

We need to create a Hospital Emergency Room Analysis Dashboard in Power BI to improve efficiency and provide useful insights. This dashboard will help stakeholders monitor, analyze, and make better decisions for managing patients and improving services.

Charts to Create:

- **Patient Admission Status:** Show how many patents were admitted vs. not admitted.
- **Patient Age Distribution:** Group patients by age.
- **Timeliness:** Measure the percentage of patients seen within 30 minutes.
- **Gender Analysis:** Display the number of patients by gender.
- **Department Referrals:** Check which departments patients are referred to the most.

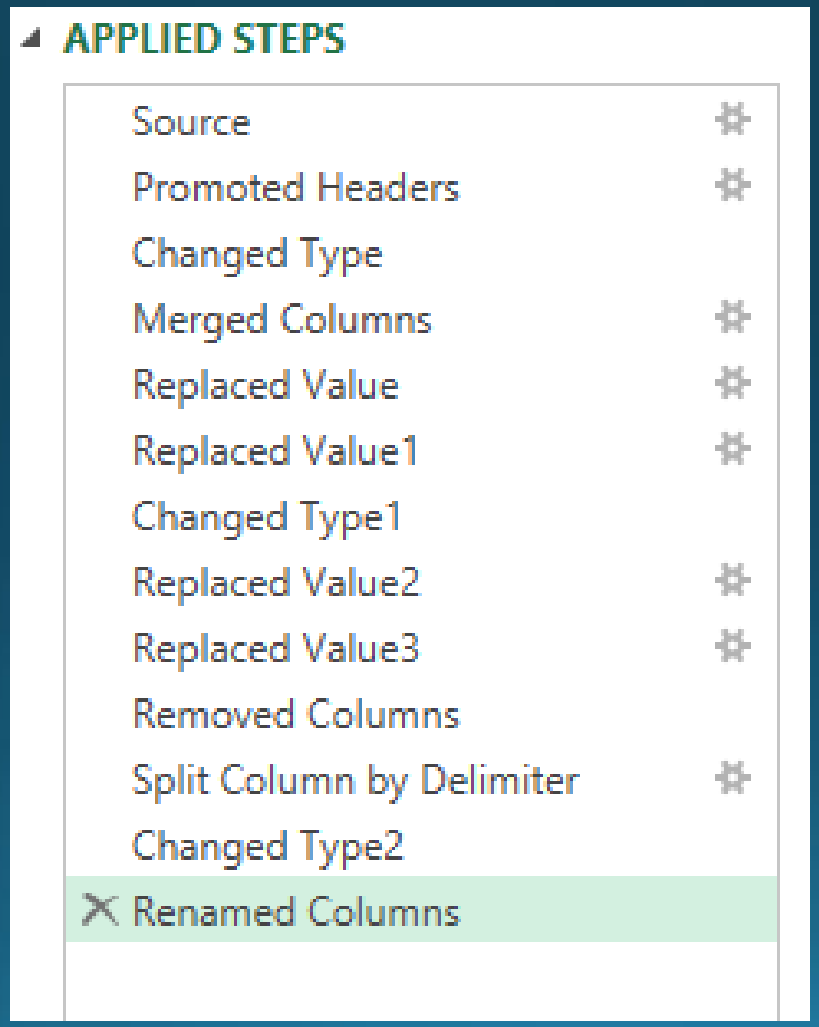
UNCLEANED DATA SET

Patient Id	Patient Admission Date	Patient First Inital	Patient Last Name	Patient Gender
Valid 100%	Valid 100%	Valid 100%	Valid 100%	Valid 100%
Error 0%	Error 0%	Error 0%	Error 0%	Error 0%
Empty 0%	Empty 0%	Empty 0%	Empty 0%	Empty 0%
145-39-5406	*20-03-2024 08:47:00 AM*	H	Glasspool	M
316-34-3057	*15-06-2024 11:29:00 AM*	X	Methuen	M
897-46-3852	*20-06-2024 09:13:00 AM*	P	Schubuser	F
358-31-9711	*04-02-2024 10:34:00 PM*	U	Titcombe	F
289-26-0537	*04-09-2024 05:48:00 PM*	Y	Gionettitti	Male
255-51-2877	*20-04-2023 12:13:00 AM*	H	Buff	M
465-97-0990	*23-08-2023 08:26:00 AM*	F	Perrat	F
157-31-7520	*29-07-2023 04:57:00 PM*	K	Gwillim	F
432-34-5614	*19-02-2024 06:54:00 AM*	E	Dewhirst	F
609-17-8678	*11-10-2024 05:25:00 AM*	M	Crebo	Male
497-14-6812	*26-07-2024 01:45:00 AM*	Q	Churchard	F
393-38-9502	*10-03-2024 10:02:00 PM*	N	Corpes	F
288-05-6370	*12-11-2023 04:00:00 PM*	R	Brixey	F
784-54-9931	*25-06-2023 09:40:00 AM*	M	Goudie	M
662-21-6522	*04-05-2023 01:16:00 PM*	G	Stanlack	Male
628-73-1801	*19-09-2023 01:53:00 AM*	C	McMurty	M
370-19-2271	*25-05-2024 10:11:00 PM*	I	Scothorn	F
458-98-8860	*25-06-2023 06:59:00 PM*	J	Helgass	M
728-31-2493	*04-09-2023 04:15:00 PM*	W	Chittock	F
823-34-5523	*16-11-2023 11:46:00 PM*	F	Prendergast	M

LINK OF UNCLEAN DATA SET

CLICK HERE

Applied Steps for Cleaning Data



CLEAN DATA SET

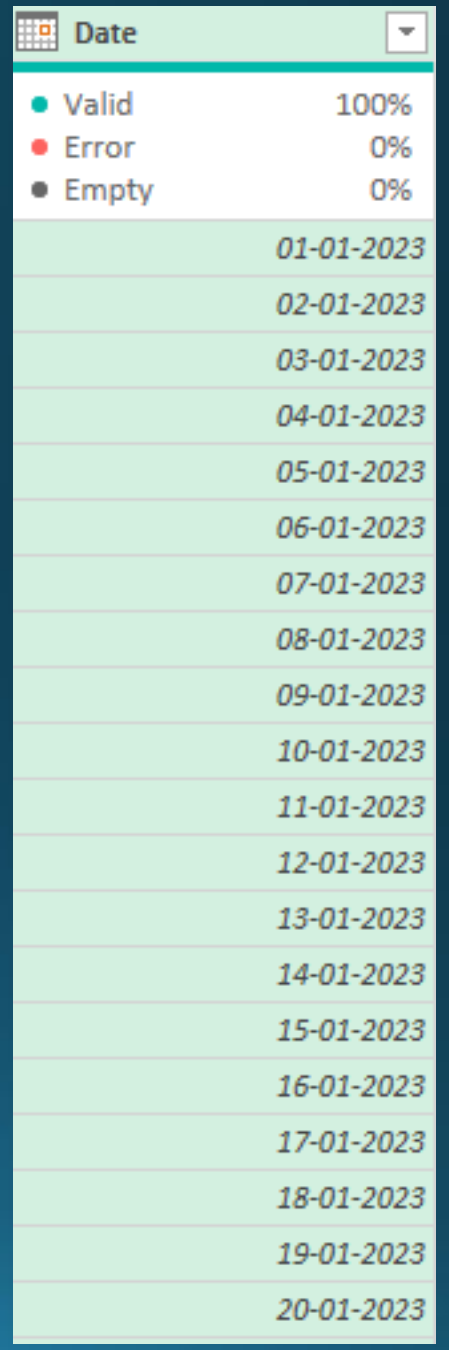
Patient Id	Patient Admission Date	Patient Admission Time	Merged	Patient Gender
Valid 100%	Valid 100%	Valid 100%	Valid 100%	Valid 100%
Error 0%	Error 0%	Error 0%	Error 0%	Error 0%
Empty 0%	Empty 0%	Empty 0%	Empty 0%	Empty 0%
145-39-5406	20-03-2024	08:47:00 AM	H. Glasspool	Male
316-34-3057	15-06-2024	11:29:00 AM	X. Methuen	Male
897-46-3852	20-06-2024	09:13:00 AM	P. Schubuser	Female
358-31-9711	04-02-2024	10:34:00 PM	U. Titcombe	Female
289-26-0537	04-09-2024	05:48:00 PM	Y. Gionettitti	Male
255-51-2877	20-04-2023	12:13:00 AM	H. Buff	Male
465-97-0990	23-08-2023	08:26:00 AM	F. Perrat	Female
157-31-7520	29-07-2023	04:57:00 PM	K. Gwillim	Female
432-34-5614	19-02-2024	06:54:00 AM	E. Dewhirst	Female
609-17-8678	11-10-2024	05:25:00 AM	M. Crebo	Male
497-14-6812	26-07-2024	01:45:00 AM	Q. Churchard	Female
393-38-9502	10-03-2024	10:02:00 PM	N. Corpes	Female
288-05-6370	12-11-2023	04:00:00 PM	R. Brixey	Female
784-54-9931	25-06-2023	09:40:00 AM	M. Goudie	Male
662-21-6522	04-05-2023	01:16:00 PM	G. Stanlack	Male
628-73-1801	19-09-2023	01:53:00 AM	C. McMurty	Male
370-19-2271	25-05-2024	10:11:00 PM	I. Scothorn	Female
458-98-8860	25-06-2023	06:59:00 PM	J. Helgass	Male
728-31-2493	04-09-2023	04:15:00 PM	W. Chittock	Female
823-34-5523	16-11-2023	11:46:00 PM	F. Prendergast	Male

LINK OF CLEAN DATA SET

CLICK HERE

Calendar Table Formula

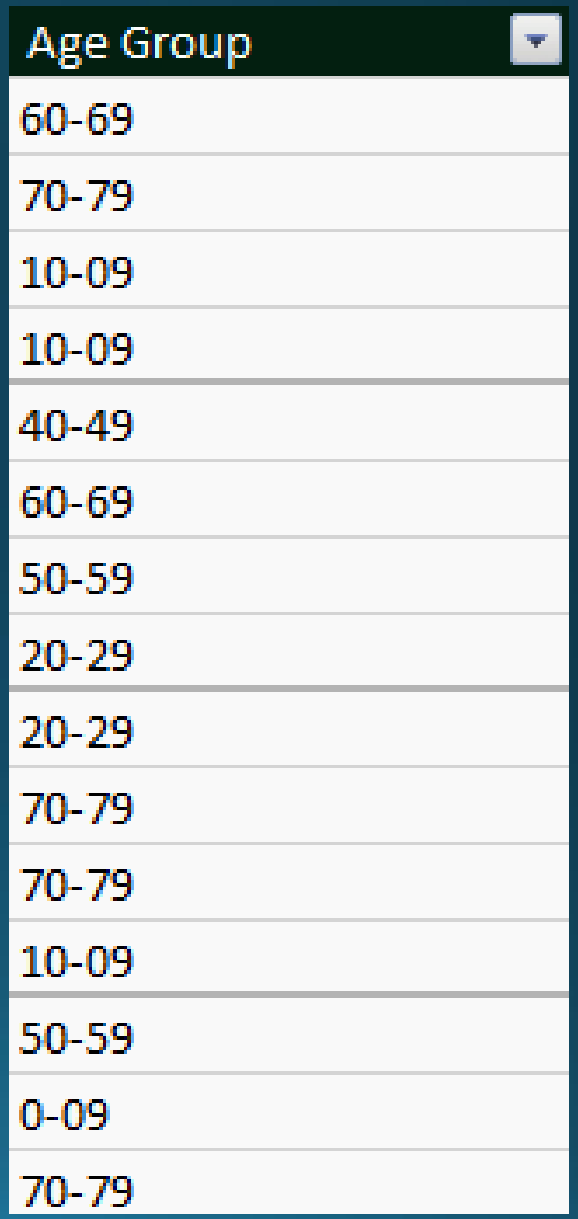
= List.Dates(#date(2023,01,01), 731,#duration(1,0,0,0))



DAX Formulas

- DAX Formula for age group:

=IF([Patient Age]>70,"70-79",IF([Patient Age]>60,"60-69",IF([Patient Age]>50,"50-59",IF([Patient Age]>40,"40-49",IF([Patient Age]>30,"30-39",IF([Patient Age]>20,"20-29",IF([Patient Age]>10,"10-09","0-09")))))))

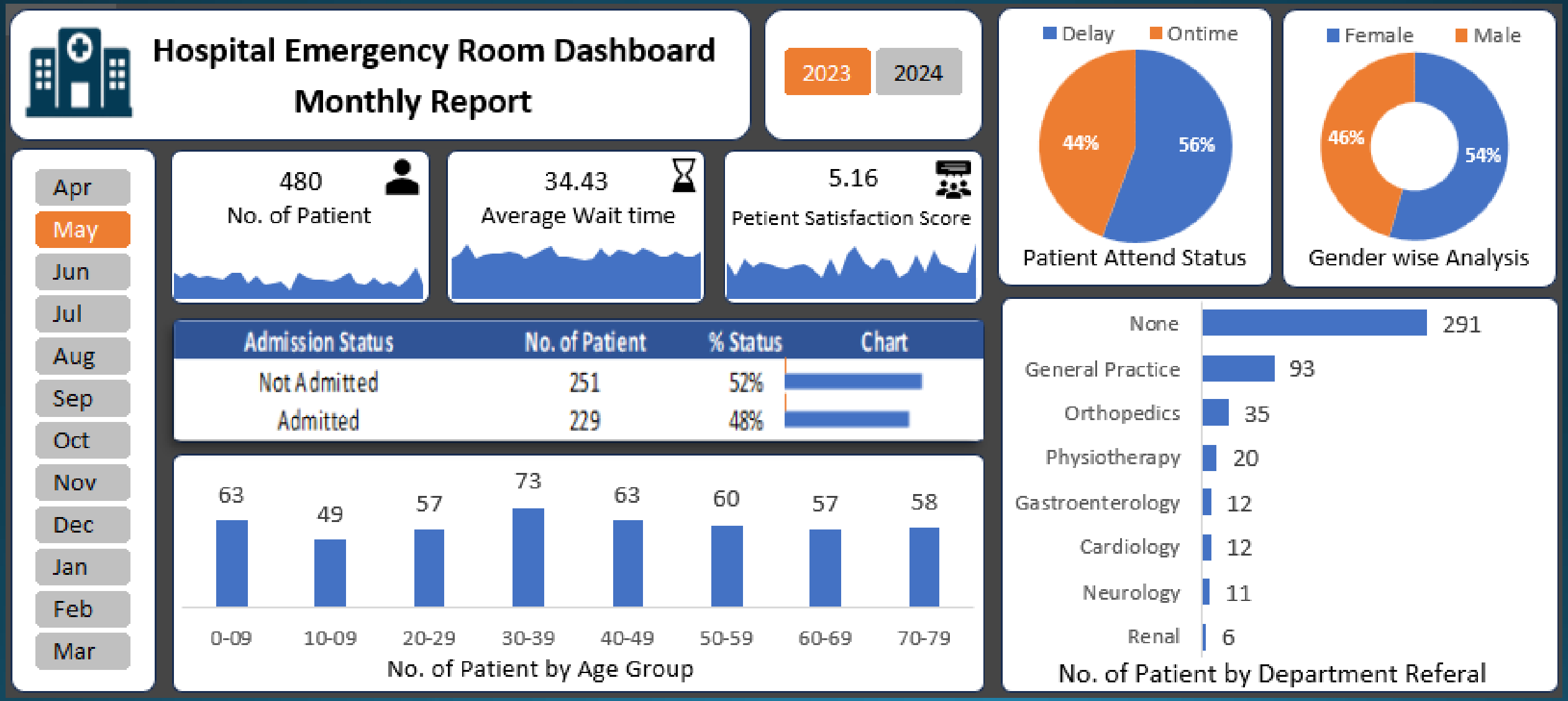


- DAX Formula for Patient Attend Status

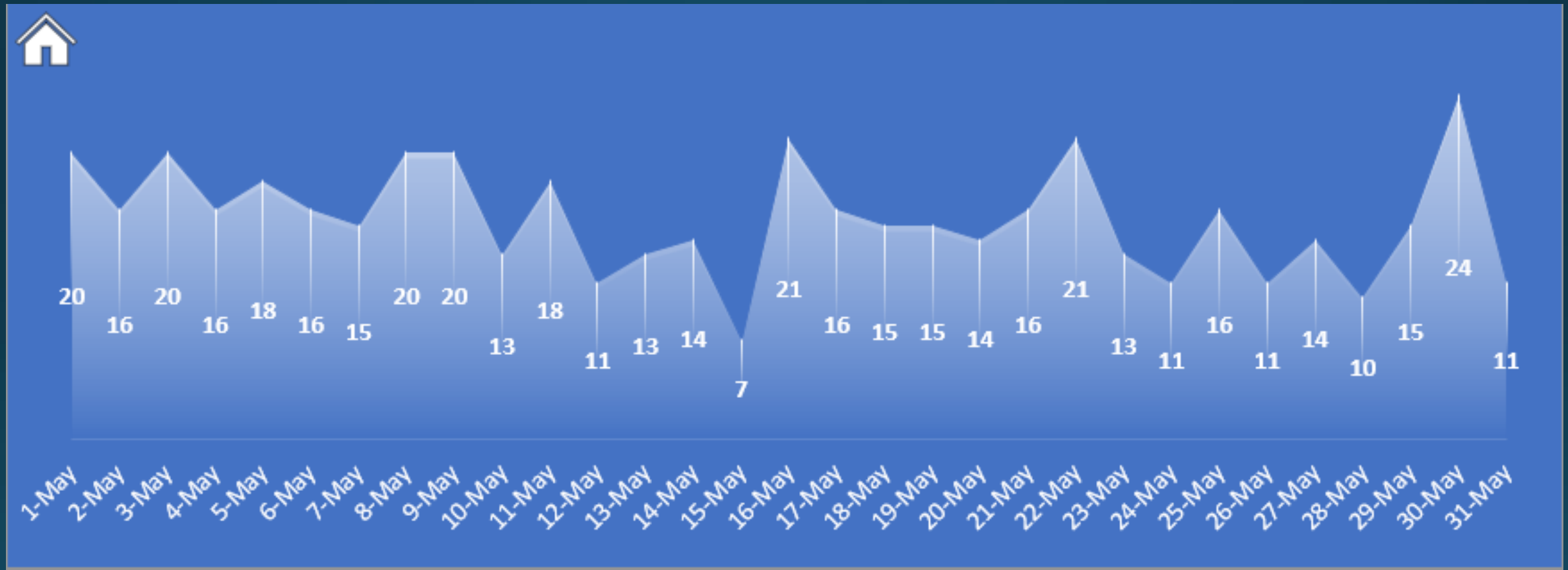
=IF([Patient Waittime]>30,"Delay","Ontime")

Patient attend Status
Delay
Delay
Ontime
Delay
Delay
Delay
Delay
Delay
Delay
Delay
Delay
Delay
Delay
Delay
Ontime
Ontime

FINAL DASHBOARD

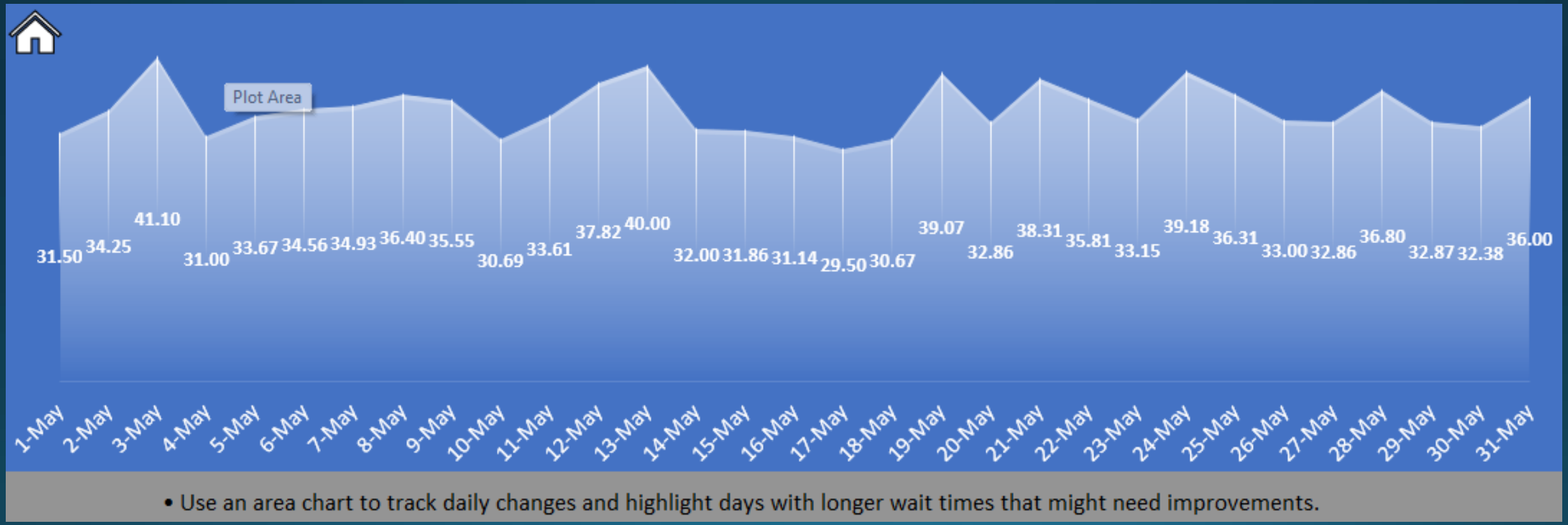


NUMBER OF PATIENTS



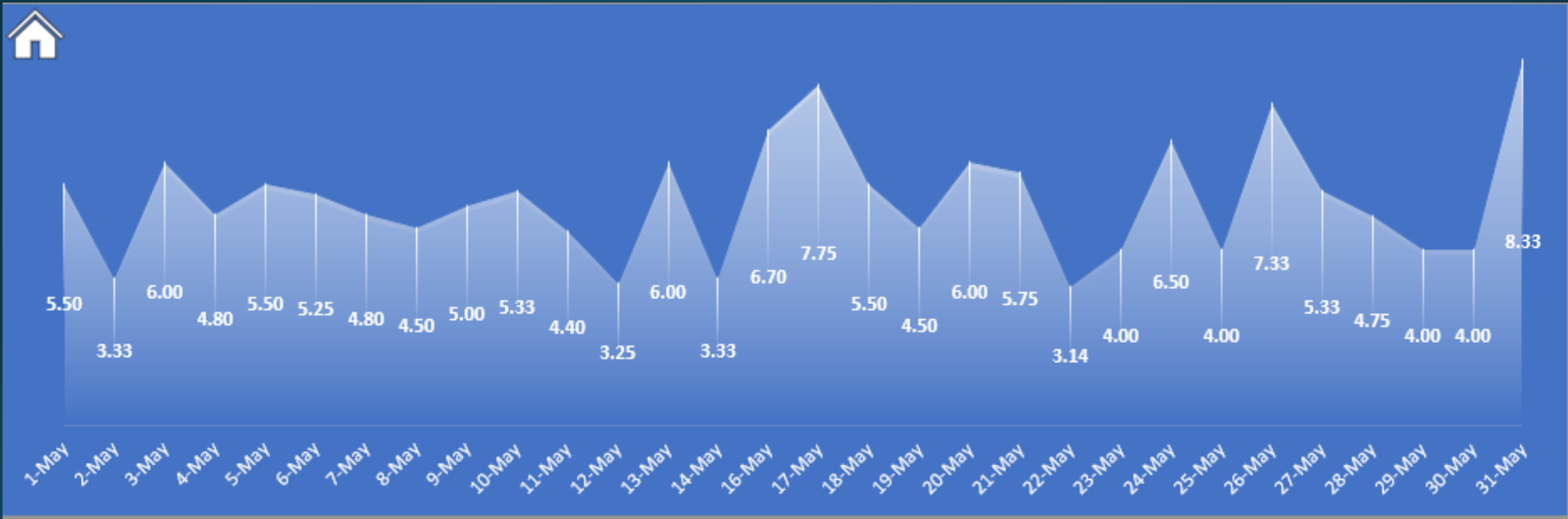
• Showing a daily trend with an area sparkline to spot patterns like busy days or seasonal trends.

DAILY AVERAGE WAIT TIME



- Use an area chart to track daily changes and highlight days with longer wait times that might need improvements.

DAILY PATIENTS SATISFACTION SCORE



- Use an area chart to show trands, spot drops in satisfaction, and link them to busy times or challenges.

HOPE YOU GUYS LIKED THE PROJECT

THANK'S FOR WATCHING