

Case Wellhub - CX Analytics

Important information:

- This case is part of the Selection Process for the CX Analytics position that you are participating at Wellhub, **so please do not share or disclose it**;
 - You will have **2 calendar days** to resolve **the scenario** presented and submit it to **anna.silva@wellhub.com**;
 - This case aims to evaluate applicants your **SQL** knowledge;
 - **Please read the exercise instructions carefully** and take a moment to complete it with attention and dedication;
 - Your progression to the next stage depends on the result of this case, **as this is an eliminatory stage**.
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Below you will find a hypothetical scenario involving a wellness app company experiencing increased customer support contacts. The answer should be provided in the dedicated space below.

Hypothetical Scenario:

Our company offers a popular wellness app that helps users track their fitness, nutrition, and sleep. We've been experiencing a higher-than-expected increase in customer support contacts over the past quarter. We need to understand why this is happening and what we can do to address it. **We want you to analyze the situation and provide a SQL code that can help us generate insights to understand the root cause(s).**

App Overview

- Our wellness app has 2 million active users.

Customer Support:

- Primary channels: email, in-app chat, and a help center.

Key tracked metrics:

- Contact Rate: Number of support tickets/subscribers per month (total and by channel).
- Contact Reason: Categories like technical issues, feature questions, account problems, cancellation requests.
- Full Resolution Time (FRT): Average time to resolve a ticket.
- Customer Satisfaction (CSAT): Measured via post-support surveys.

Problem

- Over the last 3 months, we've observed:
- A 15% increase in user contacts.
- A 7% decline in CSAT scores.
- 10% decline on the FRT.

Tool to Use SQL

Data Exploration section:

When analyzing the table “cx.contacts_all”, we see the following columns

ticket_id	flt_ctc_created_i	flt_ctc_channel_opened	contact_reason	flt_ctc_status	flt_ctc_re	flt_ctc_agent_wc	flt_ctc_latest_group_name	gympass_id
9921239	March 4, 2024,	CONVERSATIONAL_AI	NOT PRODUCT CLOSED	28920		0	BR - MEMBRO	29297162
9922293	March 17, 2024,	CONVERSATIONAL_AI	CORPORATE M CLOSED	36120		4920	BR - END USER TAGUS	fce47aa7-b184-4724-ac2a-bfe7ad94de03
9922135	March 17, 2024,	CONVERSATIONAL_AI	NOT PRODUCT CLOSED	32520		1380	CL - MIEMBRO	25015387
9922374	March 17, 2024,	CONVERSATIONAL_AI	FAMILY MEMBE CLOSED	98880		36060	ES - END USER TAGUS	30544389
9922141	March 17, 2024,	CONVERSATIONAL_AI	OTHERS CLOSED	54060		12480	DE - END USER TAGUS	29981645
9922120	March 17, 2024,	CONVERSATIONAL_AI	PARTNER NET\ CLOSED	32520		480	US - END USER TAGUS	20445156
9921827	March 17, 2024,	CONVERSATIONAL_AI	PAUSE PLAN CLOSED	32520		540	ES - USUARIO	704a0ecd-cc41-4daa-9a3f-c69c03744ea7
9921802	March 17, 2024,	CONVERSATIONAL_AI	NOT PRODUCT CLOSED	32520		720	US - END USER TAGUS	18990190
9922483	March 17, 2024,	CONVERSATIONAL_AI	NOT PRODUCT CLOSED	32520		600	DÚVIDAS SOBRE COBRANÇA	5372563
9922053	March 17, 2024,	CONVERSATIONAL_AI	NOT PRODUCT CLOSED	28920		0	BR - END USER TAGUS	ea97adf8-244c-454d-afb8-8d0804771201
9922322	March 17, 2024,	CONVERSATIONAL_AI	CORPORATE M CLOSED	32520		900	SOU UM USUÁRIO	20048069
9922418	March 17, 2024,	HELP_CENTER	PARTNER NET\ CLOSED	26040		26040	ES - END USER TAGUS	24198352
9921657	March 17, 2024,	MENSAGENS	PARTNER APPS CLOSED	50460		4560	UK - MEMBER	28750662
9922176	March 17, 2024,	CANAL_DE_ATENDIMENTO_EMAIL	FAKE ELIGIBIL\ CLOSED	1140		1140	BR - FRAUD BLOCKED USERS	91b2e6e2-e1aa-4b5d-8ada-7431ea7c1f70
9921990	March 17, 2024,	HELP_CENTER	CORPORATE M CLOSED	26820		26820	US - MEMBER	df3593c5-1275-4b5e-8398-dc85d92395a1
9922113	March 17, 2024,	HELP_CENTER	PARTNER NET\ CLOSED	0		0	BR - RETENÇÃO E CANCELAMENTOS	56d9cb64-efd5-4d44-b330-56501c1d539d
9922273	March 17, 2024,	HELP_CENTER	OTHERS CLOSED	126360		19200	BR - END USER TAGUS	e5e7b471-fc77-4884-a588-625d2fe03f67
9922464	March 17, 2024,	MENSAGENS	OTHERS CLOSED	36120		5880	BR - MEMBRO	92130bf4-aef5-4e6f-af23-5f7e98d326d7

When checking the table cx.contacts_csat, we see these columns

flt_ctc_created_a	Pais	ticket_id	first_group	last_group	contact_reason	CSA csat_reason	FRT_12_elegibility	last_agent	gympass_id
January 27, 2025	Brazil	79904b705	BR - CORPORA	BR - CORPORA	EMPLOYEE SUPPORT	5 __AGENT_FRIENDLINESS	TRUE titular	398881467114	29297162
January 8, 2025,	Brazil	11126882	BR - CORPORA	BR - CORPORA	EMPLOYEE SUPPORT	5 __AGENT_FRIENDLINESS	TRUE titular	427809287793	fce47aa7-b184-4724-ac2a-bfe7ad94de03
April 3, 2025, 2:0	Brazil	11513042	BR - CORPORA	BR - CORPORA	EMPLOYEE SUPPORT	5	TRUE titular	398881467114	25015387
January 6, 2025,	Brazil	11106549	BR - CORPORA	BR - CORPORA	OTHER	5 __AGENT_FRIENDLINESS	TRUE titular	398881467114	30544389
February 27, 202	Brazil	11358592	BR - SBS BILLIN	BR - CORPORA	OTHER	1 __SOLUTION_SPEED	FALSE titular	398881467114	29981645
January 20, 2025	Brazil	11186197	BR - CORPORA	BR - CORPORA	EMPLOYEE SUPPORT	5 __SOLUTION_SPEED	TRUE dependente	427809287793	20445156
January 20, 2025	Brazil	11182553	BR - CORPORA	BR - CORPORA	ELIGIBLE BASE	5 __AGENT_FRIENDLINESS	FALSE dependente	427809287793	704a0ecd-cc41-4daa-9a3f-c69c03744ea7
April 4, 2025, 3:0	Brazil	115194771	BR - CORPORA	BR - CORPORA	EMPLOYEE SUPPORT	5 __AGENT_FRIENDLINESS	TRUE titular	427809287793	18990190
January 7, 2025,	Brazil	11119512	BR - CORPORA	BR - CORPORA	QUESTIONS ABOUT WELLHUB	5 __AGENT_FRIENDLINESS	TRUE dependente	398881467114	5372563
February 21, 202	Brazil	11334174	BR - CORPORA	BR - CORPORA	CHANGE PAYMENT DATE	5 __SOLUTION_SPEED	FALSE titular	398881467114	ea97adf8-244c-454d-afb8-8d0804771201
March 26, 2025,	Brazil	11474117	BR - CORPORA	BR - CORPORA	EMPLOYEE SUPPORT	5 __AGENT_FRIENDLINESS	TRUE titular	398881467114	20048069
February 28, 202	Brazil	113627911	BR - CORPORA	BR - CORPORA	EMPLOYEE SUPPORT	5 __AGENT_FRIENDLINESS	TRUE dependente	1653874541224	24198352
March 28, 2025,	Brazil	11487941	BR - CORPORA	BR - CORPORA	QUESTIONS AND DOUBTS	4 __AGENT_KNOWLEDGE	TRUE dependente	1507033734341	28750662
February 5, 2025	Brazil	11260777	BR - CORPORA	BR - CORPORA	EMPLOYEE SUPPORT	5 __SOLUTION_SPEED	TRUE titular	399363551834	91b2e6e2-e1aa-4b5d-8ada-7431ea7c1f70

Question

In order to make decisions and take action, what would be the corresponding SQL code to pull the data showing the changes we're observing?

****Keep in mind that there are no right results here in order of numbers. We don't expect a result but rather understand if you are able to use SQL to solve problems.****

Answer below:

[Write your code here]

