CLOSE ENDED 3

Q: What is the percentage of sales in the Health & Wellness category by generation?

Ans: We see that baby boomers contribute to the Health & Wellness category

Assumption: I am assuming the definition of generations based on [this article from Pew Research](https://www.pewresearch.org/short-reads/2019/01/17/where-millennials-end-and-generation-z-begins/) and that people born after 2012 are Generation Alpha.

--create a view with generation as a new column

WITH u\_generations As (

SELECT \*,

     CASE

         WHEN strftime('%Y', u.BIRTH\_DATE) BETWEEN '1928' AND '1945' THEN 'Silent Generation'

         WHEN strftime('%Y', u.BIRTH\_DATE) BETWEEN '1946' AND '1964' THEN 'Baby Boomers'

         WHEN strftime('%Y', u.BIRTH\_DATE) BETWEEN '1965' AND '1980' THEN 'Generation X'

         WHEN strftime('%Y', u.BIRTH\_DATE) BETWEEN '1981' AND '1996' THEN 'Millennials'

         WHEN strftime('%Y', u.BIRTH\_DATE) BETWEEN '1997' AND '2012' THEN 'Generation Z'

         WHEN strftime('%Y', u.BIRTH\_DATE) BETWEEN '2013' AND strftime('%Y', 'now') THEN 'Generation Alpha'

         ELSE 'Other'

         -- If the birth year doesn't fall into these categories when blank or Null or typo

     END AS generation

   FROM USER\_TAKEHOME u

),

--map the transactions to specify which generation person has made the transaction

t\_by\_gen AS (

SELECT \*

FROM TRANSACTION\_TAKEHOME t LEFT JOIN u\_generations g ON t.USER\_ID = g.ID

WHERE g.ID in (SELECT user\_id from TRANSACTION\_TAKEHOME)

)

--percentage of sales is calculated based on how many transactions are for Health & Wellness products

SELECT t.generation, (SUM(t.FINAL\_SALE) / (SELECT SUM(final\_sale) FROM t\_by\_gen t LEFT JOIN PRODUCTS\_TAKEHOME p ON t.BARCODE = p.BARCODE WHERE lower(p.CATEGORY\_1) like '%health%wellness%'))\*100 AS percentage\_of\_sales

FROM t\_by\_gen t LEFT JOIN PRODUCTS\_TAKEHOME p ON t.BARCODE = p.BARCODE

WHERE lower(p.CATEGORY\_1) like '%health%wellness%'

GROUP by t.generation;

