**CASE 3: SELLER ANALYSIS**

**Question 1:** Who are the sellers that deliver the orders to customers the fastest? Please provide the Top 5.

**Query:**

WITH tablo1 AS (

SELECT oi.seller\_id,

EXTRACT (DAY FROM order\_delivered\_customer\_date - order\_purchase\_timestamp) AS delivery\_time

FROM orders AS o

JOIN order\_items AS oi ON o.order\_id=oi.order\_id

)

SELECT seller\_id,

ROUND (AVG (delivery\_time)) AS avg\_del\_time

FROM tablo1

GROUP BY 1

ORDER BY 2

LIMIT 5;

|  |  |
| --- | --- |
| Top 5 Sellers | |
| seller\_id | avg\_del\_time |
| 96f7c797de9ca20efbe14545bed63eec | 1 |
| 2c00c85d30361cd2ced2969cffbbffa3 | 1 |
| 5e063e85d44b0f5c3e6ec3131103a57e | 1 |
| 751e274377499a8503fd6243ad9c56f6 | 1 |
| f3511c85f59f8dec53d140501ee8e7a8 | 1 |

**--Examine the order counts of these sellers along with the reviews and ratings of their products, and provide your commentary.**

**Query:**

WITH top5 AS (

WITH tablo1 AS (

SELECT oi.seller\_id,

EXTRACT (Day from order\_delivered\_customer\_date-order\_purchase\_timestamp) AS delivery\_time

FROM orders AS o

JOIN order\_items AS oi ON o.order\_id=oi.order\_id)

SELECT seller\_id,

ROUND (AVG (delivery\_time)) AS avg\_del\_time

FROM tablo1

GROUP BY 1

ORDER BY 2

LIMIT 5)

SELECT t5.seller\_id,

COUNT (DISTINCT oi.order\_id) AS total\_order,

COUNT (review\_comment\_message) AS total\_comment,

ROUND (AVG (r.review\_score)) AS avg\_rev\_score

FROM top5 AS t5

JOIN order\_items AS oi ON oi.seller\_id=t5.seller\_id

JOIN reviews AS r ON r.order\_id=oi.order\_id

GROUP BY 1;

|  |  |  |  |
| --- | --- | --- | --- |
| Seller\_id | Total Order | Total Comment | Avg. Review Score |
| 2c00c85d30361cd2ced2969cffbbffa3 | 1 | 0 | 5 |
| 5e063e85d44b0f5c3e6ec3131103a57e | 1 | 0 | 5 |
| 751e274377499a8503fd6243ad9c56f6 | 1 | 0 | 5 |
| 96f7c797de9ca20efbe14545bed63eec | 1 | 0 | 1 |
| f3511c85f59f8dec53d140501ee8e7a8 | 1 | 0 | 5 |

**Comment:** According to the query results, the fastest sellers have a total\_order of 1, and since their total\_comments are 0, it might be healthier to determine a total\_order range and comment based on that. However, it could be investigated why a customer who received their package within 1 day would give this seller a 1-star rating. Perhaps the product did not arrive as they expected, or it might be a product that requires careful handling even if it’s delivered quickly, or there could be damage to the product and the seller might not be accepting returns.

**Question 2:** Which sellers are selling products in more categories? Do sellers with more categories also have a higher number of orders?

**Query:**

SELECT oi.seller\_id,

COUNT (DISTINCT p.product\_category\_name) AS total\_category,

COUNT (DISTINCT oi.order\_id) AS total\_order

FROM order\_items AS oi

JOIN products AS p ON oi.product\_id=p.product\_id

WHERE p.product\_category\_name is not null

GROUP BY 1

ORDER BY 3 DESC;

|  |  |  |
| --- | --- | --- |
| Seller id | Total Category | Total Order |
| 6560211a19b47992c3666cc44a7e94c0 | 7 | 1854 |
| 4a3ca9315b744ce9f8e9374361493884 | 7 | 1806 |
| cc419e0650a3c5ba77189a1882b7556a | 4 | 1706 |
| 1f50f920176fa81dab994f9023523100 | 3 | 1404 |
| da8622b14eb17ae2831f4ac5b9dab84a | 4 | 1314 |
| 955fee9216a65b617aa5c0531780ce60 | 23 | 1287 |
| 7a67c85e85bb2ce8582c35f2203ad736 | 2 | 1160 |
| ea8482cd71df3c1969d7b9473ff13abc | 2 | 1146 |
| 4869f7a5dfa277a7dca6462dcf3b52b2 | 10 | 1132 |
| 3d871de0142ce09b7081e2b9d1733cb1 | 6 | 1080 |

**Comment:** When we analyze the overall data based on sellers, it seems that the total orders are not highly dependent on the total number of categories per seller. Perhaps sellers who sell in high-demand categories could be encouraged to develop strategies to increase their sales volumes.