

## 🕒 **LiveLab** | Terracotta Survey Analysis

**INTRODUCTION:** Eben, the owner of a local plant shop called Terracotta, surveyed former, current, and even prospective customers who visited his shop to better understand their buying patterns and preferences.

### – Data Set **Description**

**plant\_types** - Survey responses to the question “What type of plants do you typically purchase?” Values are 'other', 'terrariums', 'large or small trees', 'indoor plants', 'low-maintenance plants', 'tropical plants', 'succulents or cacti', 'aquatic plants', 'outdoor plants', and 'herbs or spices'.

**reason\_for\_purchase\_words** - Survey responses to the question “What factor is most important to you when choosing a plant to buy?” This was a free-response question.

**reason\_for\_purchase** - Categories based on common themes in `reason_for_purchase_words`. Values are 'care requirements', 'benefits', 'pet-friendly or safe for children', 'size', 'rare or unique species', and 'price'.

**freq** - Survey responses to the question “How often do you typically purchase plants?” Values are 'weekly', 'monthly', 'every few months', 'once a year', and 'rarely, only for special occasions'.

**care\_info** - Categories based on common themes in survey responses to the question “What plant care information would you like to see provided in-store or online?” Values are 'pet-safe information', 'light requirements', 'watering frequency & amount', 'propagation techniques', and 'soil type & fertilization'.

**pots** - Survey responses to the question “What kind of pots or planters do you prefer for your plants?” Values are 'ceramic', 'terracotta', 'plastic', 'metal', 'hanging baskets', and 'wall-mounted planters'.

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### – **Analysis 1:** Frequent Purchases

- A.** Using the `COUNT` function to return the exact number of rows in the survey table.

```
SELECT
  COUNT(*)
FROM
  terracotta.survey
```

218 rows

- B.** Grouping the survey responses by the question “What type of plants do you typically purchase?” and counting the number of responses for each type of plant listed:

```
SELECT
  plant_types,
  COUNT(*) AS n_responses
FROM
  terracotta.survey
GROUP BY plant_types
```

- C.** The type of plants are most frequently purchased by customers:

```
SELECT
  plant_types,
  COUNT(*) AS n_responses
FROM
  terracotta.survey
GROUP BY plant_types
ORDER BY n_responses DESC
```

Low-maintenance plants are most frequently purchased by customers.

- D. The percentage of all survey responses list low-maintenance plants as the type of plant they most frequently purchase.

23%

## – Analysis 2: Reasons for Purchase

- A. Grouping the survey responses by the `reason_for_purchase` categories and counting the number of responses in each category, sorted from highest to lowest.

```
SELECT
  reason_for_purchase,
  COUNT(*) AS n_responses
FROM
  terracotta.survey
GROUP BY reason_for_purchase
ORDER BY n_responses DESC
```

- B. The number of categories that had at least **30** responses.

```
SELECT
  reason_for_purchase,
  COUNT(*) AS n_responses
FROM
  terracotta.survey
```

```
GROUP BY
  reason_for_purchase
HAVING
  COUNT(*) >= 30
ORDER BY
  n_responses DESC
```

3 categories:

care requirements

pet-friendly or safe for children

benefits

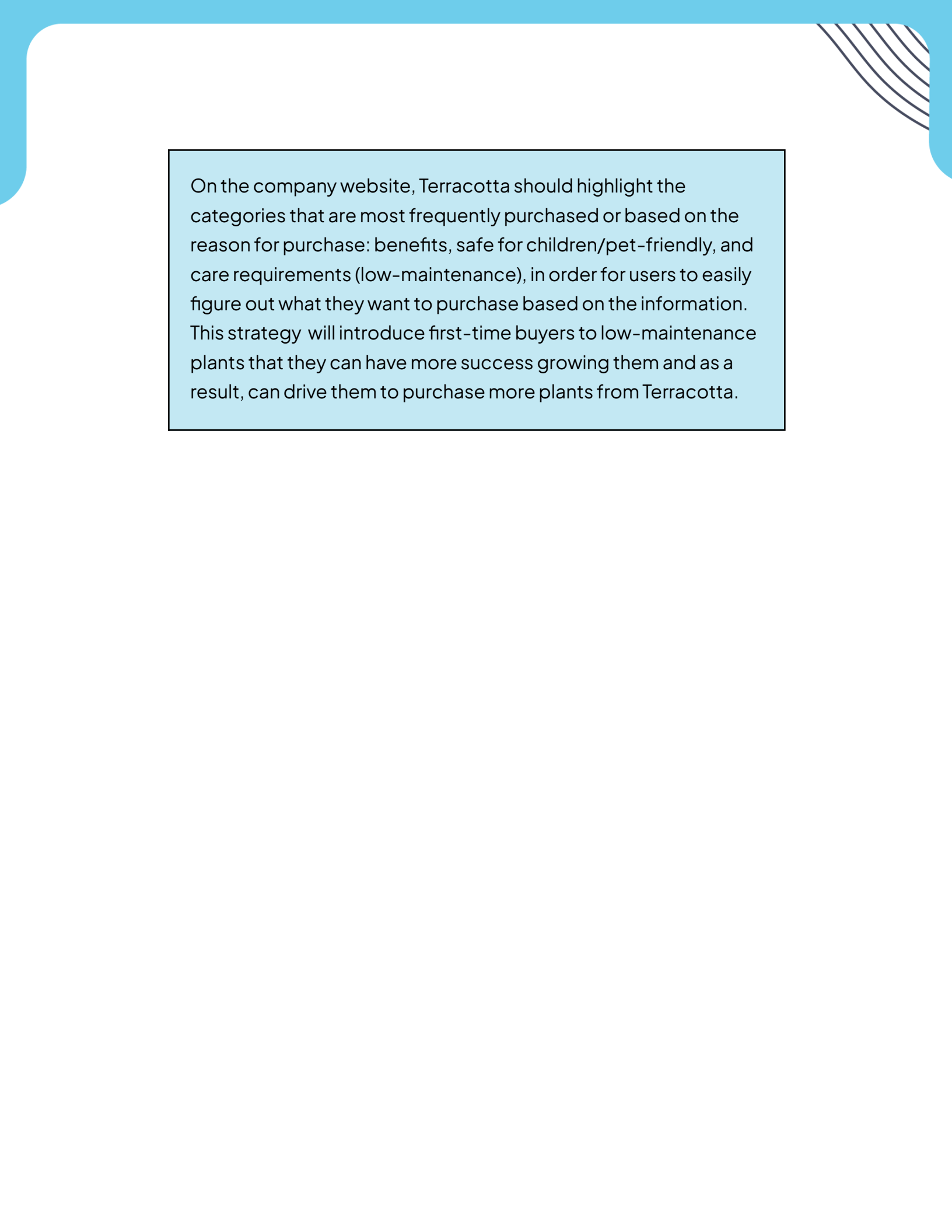
- C. The percentage of all survey responses that list care requirements (e.g. maintenance, light requirements, watering frequency, etc.) as the most important factor in choosing a plant to buy.

71.56%

- D. The percentage of all survey responses list whether or not a plant is pet-friendly or safe for children as the most important factor in choosing what to buy.

26.15%

## – Analysis 3: A Recommendation for Terracotta



On the company website, Terracotta should highlight the categories that are most frequently purchased or based on the reason for purchase: benefits, safe for children/pet-friendly, and care requirements (low-maintenance), in order for users to easily figure out what they want to purchase based on the information. This strategy will introduce first-time buyers to low-maintenance plants that they can have more success growing them and as a result, can drive them to purchase more plants from Terracotta.