



## Project Narrative

### 1 `logging.coffee`

Congratulations – you have been hired as Lead Database Engineer for `logging.coffee`. The mission of `logging.coffee` is to help the angel investor (and others with discerning palates) learn about their own individual bean & roast preferences. The vision: a personalized, private partner through the fun & tasty journey of experimenting with coffee.

The app user will be logging information about their own coffee purchases and tastings. They will then be able to easily find and leverage this trove of data to make informed choices. In future versions, the app will integrate with AI to make personalized predictions.

#### 1.1 Beans

Coffee starts its journey with production on a farm. Because of climate and elevation demands, there are a small set of originating countries (e.g., Ethiopia, Peru, Colombia). Over time and tasting, users of `logging.coffee` will build up knowledge about growers (including their name and farm elevation) and locations of grown coffee beans.

Coffee growers start with different coffee plants, each having different taste profiles. While there is an entire science behind the subspecies of coffee<sup>1</sup>, it will be sufficient for `logging.coffee` to log the *varietal* of each experienced coffee (e.g., Bourbon, Gesha).

Once ripened, the coffee cherry is harvested and *processed*<sup>2</sup> – a user will certainly want to know this, as Washed vs Honey vs Natural methods can strongly affects taste.

#### 1.2 Products

After several processing steps, the next critical step of the coffee journey is roasting. It will be important for the user to be able keep track of various roasters they’ve tried, including their name, location, and website. Also important – after having tried some of their product, the user should be able to indicate that they’ve “given up” on a roaster.

While roasting is far from a standardized process<sup>3</sup>, when a user tries a particular coffee product, they will want to log the roast level (e.g., Light, Medium, Dark). This resulting product will typically have a name, a price (which should be standardized to dollars-per-100g), and an associated set of tasting “notes” (e.g., Grapefruit, Citrus, Vanilla). As an example, look to “Tio Conejo” offered by the Onyx roaster<sup>4</sup>.

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<sup>1</sup><https://beancraft.coffee/blogs/news/coffee-basics-series-varieties-varietals-explained>

<sup>2</sup><https://beannbeancoffee.com/blogs/beansider/coffee-processing-methods>

<sup>3</sup><https://www.youtube.com/watch?v=N6BJVM5tvnw>

<sup>4</sup><https://onyxcoffee.com/products/colombia-tio-conejo-gesha-honey>

### 1.3 Roasting & Tasting

Once a roaster has imported beans and identified a roasting profile, they will periodically roast this product – the result is what a particular individual can buy & taste. The user is then going to log tastings of a particular dated roast (e.g., a tasting on January 5 of a December 30th roasting of Tio Conejo). Each such tasting will have associated notes the user detects (e.g., Fruit, Citrus) and an associated rating, as well as any notes about the brewing methodology (e.g., grind size, water temperature, number of blooms). While the user needs to establish their own scheme, the system is comprised of a sequence where each rating has an associated number, emoji, and description (e.g., 5 😊 “Ambrosia” vs 1 🤢 “Gross”).

## 2 Required Tasks

- a) Add a newly discovered roaster
- b) Add a newly purchased roast
- c) Update the rating description
- d) Log a tasting
- e) Give up on a roaster
- f) Find all grower’s in a particular country
- g) Produce a list of all the top-rated products
- h) Produce a list of the number of times each varietal has received one of the top-2 ratings
- i) Produce a log of tastings for a particular roaster in a time range
- j) Produce a ranked list of products, given a set of notes and optionally a processing method

## 3 Alternative Narrative

If this project is sounding too good to be true, or just not particularly engaging, you *can* pursue an alternative project. You will need to construct and propose a new narrative. To do so...

1. Contact your instructor to schedule a Zoom call ASAP, but no later than one week before the plan deadline. This discussion will begin the process of balancing project feasibility and challenge, from a database perspective.
2. Submit a narrative proposal (see the Syllabus for deadline) ...
  - Up to 2 pages, typeset PDF
  - Include the problem to be solved, and the main entities involved (note: this should correspond to roughly 10–12 tables)
  - Include at least 10 required tasks, as well as thought-through ideas for report queries

This document serves as a reasonable template for a narrative proposal. Whether or not your proposal is accepted, you will follow the same timeline and will be evaluated using the same criteria as other projects.