CSE 230 Problem Set 11

# Problem 27.1: Grocery List Use Case

Consider a grocery list mobile application that has an “in-store” feature:

The “in-store” feature facilitates the user to check items off their grocery list as they put things in their cart. It presents a list of all the times in the list and puts a checkbox next to each item. The user can touch the checkbox with her finger and the item is marked as “done.” Note that the user can sort the list alphabetically, by category (produce, meats, etc.), or by status (done, not in the store, or yet to be retrieved).

Based on this problem description, create 3-5 use cases (Step 1 of the noun-elicitation process).

User can check off items(mark as complete) on a grocery list after putting them in the cart

Has checkboxes next to each item

Each checkbox is touch enabled to mark as “done”

User can sort the list alphabetically, by category, or by status

# Problem 27.2: Grocery List Requirements

Select a use-case from Problem 27.1 and generate 3-5 requirements (Step 2 and 3 of the noun-identification process). For each requirement, make sure to intentionally use common nouns, proper nouns, adjectives, action verbs, having verbs, and being verbs to minimize ambiguity.

Use case (copied from 27.1):

User can sort the list alphabetically, by category, or by status

Requirements:

There will be a button labeled “sort” above the list of items.

That button will produce a drop down list with three options – “alphabetic”, “category”, “status”

The button of the current sort choice will have a green background, while the others will have white backgrounds

Clicking a button will update the order of the list to be sorted by the option chosen(alphabetically, by category, status)

Each item will have a name, one or more categories, and will have a current status that can be updated

# Problem 27.3: Grocery List Entities

Select a requirement from Problem 27.2:

Each item will have a name, one or more categories, and will have a current status that can be updated

Identify the parts of speech:

|  |  |  |
| --- | --- | --- |
| Word or Phrase | Part of Speech | Program Entity |
| Each item | Proper noun | Variable or object |
| Have | Having verb | Member variable |
| Name | Common noun | Data type |
| Category(ies) | Common noun | Data type |
| status | Common noun | Data type |
| Be updated | Action verb | Function or method |
|  |  |  |

Convert this requirement into program entities (class diagrams for nouns, function names for verbs, etc.):

A screenshot of a grocery item

Description automatically generated with medium confidence