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|  | *Cost-Effective Food Monitoring System* |
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**Design Functionality**

1. The food-monitoring system will track expiration dates from a set list of items.
2. The system will use an Android smartphone app to interface with a user.
3. The system’s app will provide a searchable list of currently stored items, with the option to view relevant recipes and nutritional data.
4. The system will optionally use a Bluetooth probe to measure more statistics for more volatile food items, such as meats.
5. The system’s app will provide food expiration tracking and recipe suggestions to the user.
6. The system’s app will alert the user if items are about to expire within a defined period of time.
7. The system’s app will provide recipe suggestions, as well as a searchable recipe list for the user to view.
8. If used, the temperature probe will track temperature and notify user if it drops below a defined safe threshold.
9. The system’s app will allow users to add and remove NFC tags to read product data and write new information if necessary.
10. The system’s app will provide item data automatically if an item is added with a pre-programmed NFC tag.
11. If the user manually adds an item with no nutritional or item data, the expiration date can be estimated by the system’s app with a disclaimer, or set manually by the user.
12. The system’s app will allow the user to write manually entered item data to an NFC tag for quick reuse later.
13. The system’s app will have a settings menu with options for reminders, adding/removing stored NFC tags, adding/removing temperature probes, and general display format options.