

# SE 216 – SOFTWARE PROJECT MANAGEMENT

## Spring 2023-2024

### Project Proposal

## SharpFridge

### Problem Definition

The problem is the inefficiency of traditional refrigeration systems in maintaining optimal storage conditions for various food items. This inefficiency leads to premature spoilage and waste, resulting in economic and environmental losses.

### Background Information

Spoilage and waste in foods occur due to the lack of intelligence in conventional refrigerators to adapt to different environmental conditions, such as temperature and humidity. Due to spoilage, consumers often face the challenge of discarding food items that have gone bad, resulting in economic and environmental losses. Additionally, the lack of real-time monitoring and alerts in traditional refrigerators makes worse the problem, as users cannot detect deviations from optimal storage conditions. The need for an intelligent refrigerator system that can effectively store various food items under different environmental conditions is vital. Such a system would ensure the freshness and longevity of the stored food items and minimize energy consumption and environmental impact.

### Objectives

- Implementing a real-time alert and notification system that informs the user of any deviations from the optimal storage conditions.
- Ensuring the freshness and longevity of the stored food items
- Providing a user-friendly interface that allows for easy monitoring and control of the refrigerator system.
- Minimizing energy consumption and environmental impact.
- To conduct thorough testing and validation of the system to ensure its reliability and effectiveness in maintaining optimal storage conditions.

### Approval Signatures and GitHub Accounts

Github: Se216-2

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