CSC 300 - Week 1 Project Deliverable

High-End Smart Refrigerator System

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Computer Science

Requirements (with Priority Weights in parentheses; 1 = highest; 10 = lowest priority):

R1 (6) The system shall include a touchscreen display panel located on the upper right refrigerator door.

R2 (9) The display should activate when a user is detected in proximity

R3 (5) The display should provide easy access to menu that includes: Inventory Management, Temperature Control, and Meal Planning

R4 (1) The system shall maintain multiple temperature zones for optimal storage of various food types.

R5 (2) The user shall be able to manually adjust temperature and humidity settings for each zone.

R6 (7) The system shall automatically adjust temperature based on door activity and load detection.

R7 (2) The system shall display real-time temperature and status for each compartment.

R8 (4) The system needs to have a camera to track food items using barcode scanning or image recognition.

R9 (4) The system needs to have a manual entry for food products without barcodes or when the system doesn't recognize a food product.

R10 (5) The system needs to be able to analyze inventory and suggest recipes based on ingredients available.

R11 (8) The system should be connected to a recipe database, when a user chooses a recipe, it should be emailed or texted to them.

R12 (9) The System needs to have add user function that stores a user's email address and or Phone number.

R13 (3) The system needs to have wifi connection.

R14 (3) The system needs to communicate with a smartphone app for remote monitoring.

R15 (6) The system needs to track temperature in Celsius and Fahrenheit

R16 (10) The system needs to have voice recognition for voice commands

R17 (7) The system needs to track date and time.

R18 (8) The system needs to be able to display alerts .