Project Requirements - HomNav

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Abstract

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1. Description

1.1 Purpose

The purpose of this system is to provide a reliable and efficient solution for managing core operational tasks while maintaining ease of use for end users.

1.2 Scope

This document outlines the functional, performance, and reliability requirements necessary to support the system's intended operation across all deployment environments.

1.3 Overview

The system consists of modular components responsible for data processing, user interaction, and system monitoring, each designed to operate cohesively within the defined constraints.

2. Specific Requirements

2.1 Functionality

The system shall process input data, generate corresponding outputs, and provide essential user feedback through an interactive interface.

2.2 Performance

The system shall operate with a maximum response time of 200 ms under normal load and maintain performance across typical usage scenarios.

2.3 Reliability

The system shall maintain an uptime of at least 99% and recover gracefully from unexpected faults or interruptions.

2.4 Design Constraints

The design shall adhere to specified hardware limitations, comply with applicable standards, and remain compatible with existing interfaces.

2.5 States and Modes

The system shall operate in three primary modes: initialization, normal operation, and error recovery, transitioning between states based on defined event triggers.