System Requirements

KemiDB - Upgrade of WinForms Application

@SEA-@SHORE Integration

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Contents

1 Introduction

The purpose of this document is to outline the functional and non-functional requirements for the upgrade of the existing WinForms application to a browser-based solution. This includes workflows for managing warning sentences (H sentences) and safety sentences (P sentences) on chemical products. The solution should also re-implement the chemical product advanced search and herein implement functionality for generating and exporting reports regarding the status on chemical products. The system aims to provide an intuitive and efficient platform for users to gain access to features and workflows previously only available on a legacy desktop application.

2 Requirements Specification

2.1 Project Scope

The project encompasses the following objectives:

- Upgrade the existing WinForms application to a browser-based solution.
- Enable users to securely access the system through commonly used web browsers.
- Provide functionality for managing warning sentences (H Sentences) associated with chemical products.
- Provide functionality for managing safety sentences (P Sentences) associated with chemical products.
- Provide functionality for generating and exporting reports highlighting the status of various chemical products.
- Integrate as part of existing web-based solution *@SEA-@SHORE*.
- Ensure data integrity, security, and compatibility with existing data sources.

2.2 Non-Functional Requirements

NF-1: The system shall be implemented as a browser-based application, accessible through commonly used web browsers such as Google Chrome, Mozilla Firefox, Microsoft Edge, and Safari.

NF-2: New data created on @SHORE shall be sent for synchronization with @SEA databases to ensure data consistency between SEA and SHORE.

NF-3: The upgraded system shall utilize the same database schema as the existing legacy system. The database structure, tables, relationships, and stored procedures shall remain consistent with the current implementation to ensure data integrity, seamless data migration, and compatibility with existing data sources and processes.

2.3 Functional Requirements (User Stories)

US-1: As a user, I want a list of all available products so that I can view and manage their corresponding warning sentences.

US-2: As a user, I want a list of all warning sentences so that I can access them in the system.

US-3: As a user, I want every warning sentence categorized by either physical danger, environmental danger or danger to general health so that I can distinguish between warning sentences.

US-4: As a user, I want to be able to assign warning sentences to chemical products so products can have their required warning sentences.

US-5: As a user, I want to be able to sort and reposition warning sentences when applied to a chemical product so that i have control over the order of warning sentences shown on the product.

US-6: As a user I want to be able to filter on warning respective categories so that I narrow the amount of data shown to my liking.

US-7: As a user, I want to be able to create warning sentences in the system so that I have a point of entry for new warning sentences in the system.

US-8: As a user, I want to be able to delete warning sentences in the system if not applied to products so that I can remove potential legacy or incorrect warning sentences from the system.

US-9: As a user, I want to be able to clone warning sentences in the system so that I can

eliminate time spent creating new ones if not necessary.

US-10: As a user, I want to be able to update various information on a warning sentence so that I have a way of editing a warning sentence if incorrect information applies.

US-11: As a user I want to be able to search chemical products using a variety of parameters so I can search for the exact chemical products I need.

US-12: As a user, I want to be able to generate and export a report as an excel file showing various metrics chosen by me in the system.

3 Design

3.1 Domain Model

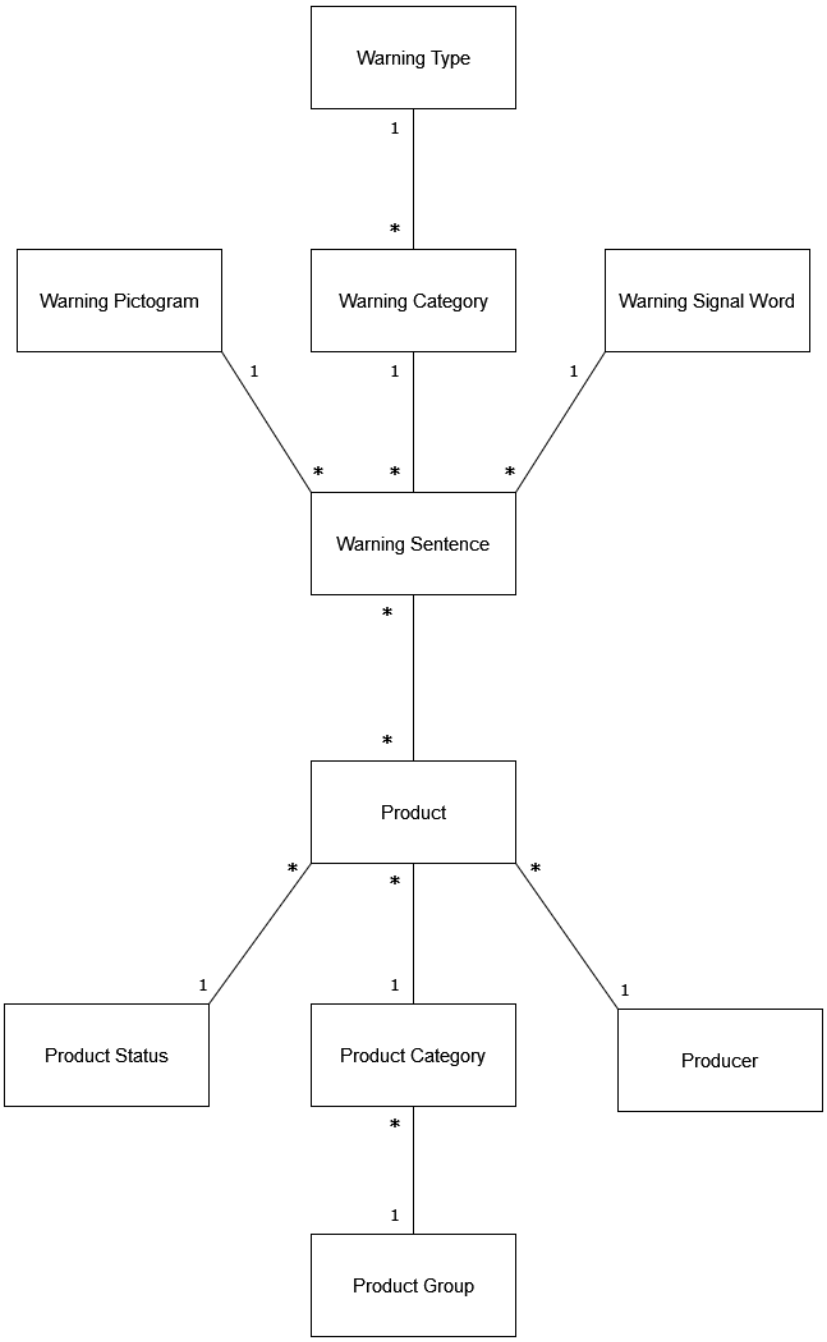

Figure 1: Domain Model

3.2 Database Schema

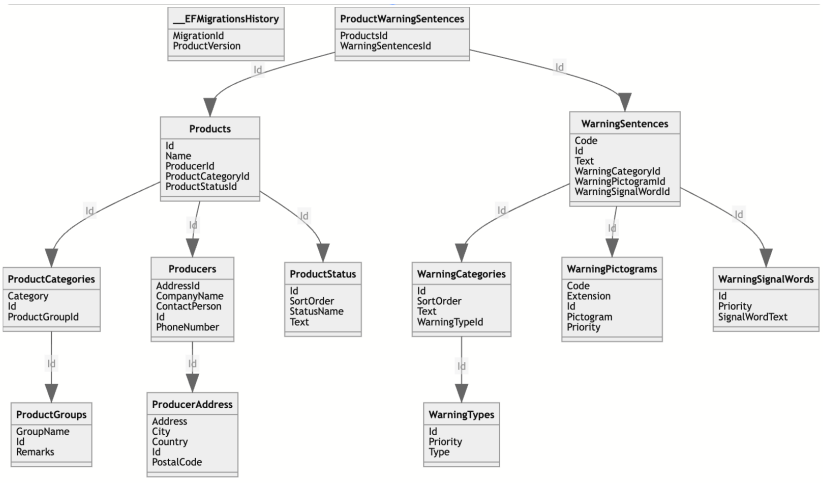

Figure 2: Database Schema - KemiDB

3.3 Use Case Diagram

This is a use case diagram showing the specific workflows regarding the new functionality based on the user stories in this document.

Figure 3: Use Case Diagram