

Assignment #2 – Template

Software Requirements

Specification

Revision History

[illegible]

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1. Purpose

This document outlines the requirements for the Mine Pump Control System (MPC).

1.1. Scope

This document will catalog the user, system, and hardware requirements for the MPC system. It will not, however, document how these requirements will be implemented.

1.2. Definitions, Acronyms, Abbreviations

List any acronyms, terms etc. that need to be defined.

1.3. References

Use Case Specification Document – Step 2 in assignment description

UML Use Case Diagrams Document – Step 3 in assignment description

Class Diagrams – Step 5 in assignment description

Sequence Diagrams – Step 6 in assignment description

1.4. Overview

The Mine Pump Control System (MPC), is designed to monitor and pump flood water out of mine shafts. As underground mining operations take place far below the water table, flooding into mine galleries and shafts is an ever-present danger.

2. Overall Description

2.1. Product Perspective

2.2. Product Architecture

The system will be organized into ____ major modules: the ____ module, the ____ module, and the ____ module.

Note: System architecture should follow standard OO design practices.

2.3. Product Functionality/Features

The high-level features of the system are as follows (see section 3 of this document for more detailed requirements that address these features):

2.4. Constraints

List appropriate constraints.

Constraint example: Since users may use any web browser to access the system, no browser-specific code is to be used in the system.

2.5. Assumptions and Dependencies

List appropriate assumptions

Assumption Example: It is assumed that the maximum number of users at a given time is 15,000.

3. Specific Requirements

3.1. Functional Requirements

3.1.1. Common Requirements:

Provide requirements that apply to all components as appropriate.

Example:

3.1.1.1 Users should be allowed to log in using their issued id and pin, both of which are alphanumeric strings between 6 and 20 characters in length.

3.1.1.2 The system should provide HTML-based help pages on each screen that describe the purpose of each function within the system.

3.1.2. _____ Module Requirements:

Provide module specific requirements as appropriate.

Example:

3.1.2.1 Users should be allowed to log in using their issued id and pin, both of which are alphanumeric strings between 6 and 20 characters in length.

3.1.3. _____ Module Requirements:

Provide module specific requirements as appropriate.

Example:

3.1.2.1 Users should be allowed to log in using their issued id and pin, both of which are alphanumeric strings between 6 and 20 characters in length.

3.1.4. _____ Module Requirements:

Provide module specific requirements as appropriate.

Example:

3.1.2.1 Users should be allowed to log in using their issued id and pin, both of which are alphanumeric strings between 6 and 20 characters in length.

3.2. External Interface Requirements

Provide module specific requirements as appropriate.

Example:

3.2.1 The system must provide an interface to the University billing system administered by the Bursar's office so that students can be automatically billed for the courses in which they have enrolled. The interface is to be in a comma-separated text file containing the following fields: student id, course id, term id, action. Where "action" is whether the student has added or dropped the course. The file will be exported nightly and will contain new transactions only.

3.3. Internal Interface Requirements

Provide module specific requirements as appropriate.

Example:

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3.3.1 The system must process a data-feed from the grading system such that student grades are stored along with the historical student course enrolments. Data feed will be in the form of a comma-separated interface file that is exported from the grading system nightly.

3.3.2 The system must process a data-feed from the University billing system that contains new student records. The feed will be in the form of a comma-separated text file and will be exported from the billing system nightly with new student records. The fields included in the file are student name, student id, and student pin number.

4. Non-Functional Requirements

4.1. Security and Privacy Requirements

Example:

4.1.1 The System must encrypt data being transmitted over the Internet.

4.2. Environmental Requirements

Example:

4.2.1 System cannot require that any software other than a web browser be installed on user computers.

4.2.2 System must make use of the University's existing Oracle 9i implementation for its database.

4.2.3 System must be deployed on existing Linux-based server infrastructure.

4.3. Performance Requirements

Example:

4.3.1 System must render all UI pages in no more than 9 seconds for dynamic pages.

Static pages (HTML-only) must be rendered in less than 3 seconds.