AT3 Project Question 2

Programming III

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Contents

No table of contents entries found.

# Introduction

## Purpose

The purpose of this document is to outline the software requirements of the product which is required by the client Jupiter Mining Corporation (JMC).

## Document Conventions

This document uses the following conventions.

|  |  |
| --- | --- |
| **Abbreviation** | **Full Term** |
| JMC | Jupiter Mining Corporation |
| C# | C# Programming language |
| CSV | Comma-separated values |

## Intended Audience

The product is a prototype of the terminal system which is intended for JMC’s remote users as they require a way of accessing JMC’s other business application without having to return to the main office.

## Project Scope

The terminal system will allow JMC users to remotely and securely authenticate against the central JMC server. Once the user has been successfully authenticated they will be able to launch JMC’s other business applications removing the need for these users to return to the main office and allows them to reduce travel time and costs.

# Overall Description

## Product Perspective and Features

A server and client terminal system which allows the following:

### Server Terminal

A server terminal which allows users to be created, user ID and password validation, user ID searching and exporting of users to CSV.

### Client Terminal

A client terminal which can remotely connect and authenticate a user’s ID and password, once successfully authenticated the user will be able to launch other applications.

## Operating Environment

* Server terminal.
* Client terminal.
* Operation system: Windows.

## Design and Implementation Constraints

* The creation of the server terminal.
* The creation of the client terminal.
* The implementation of user creation, including password hashing and salting.
* The implementation of user login, including user verification and authentication.
* The implementation of sorting and searching algorithms.
* The usage of 3rd party libraries (CSV Export and Coding standards).
* The implementation and enforcing of coding standards.

## Assumption Dependencies

Let us assume that the following is true:

* The JMC central server is accessible from anywhere that the remote users will be located and working from.
* The application which the client terminal will launch have already been developed and functioning correctly.
* JMC will provide the appropriate technologies and hardware require to run the product.

# System Features

## Description and Priority

JMC remote users currently need to be in the main office to use the applications required to complete their work duties, this product will allow them to use these applications and complete their work duties remotely.

The product is of high priority as it will save the business and their users time and money.

## Functional Requirements

### Server Terminal

* User creation
* Password hashing and salting.
* User verification and authentication.
* Usages of sorting and searching algorithms.
* The usage of 3rd party libraries.

### Client Terminal

* User login with verification and authentication.
* Launch other applications.

## Non-functional Requirements

### Server Terminal

* The server terminal will be developed and coded using C#.
* The implementation of user creation, including password hashing and salting.
* User verification and authentication.
* The implementation of sorting and searching algorithms.
* The usage of 3rd party libraries (CSV Export and Coding standards).
* The implementation and enforcing of coding standards.

### Client Terminal

* The client terminal will be developed and coded using C#.
* The implementation of user login, which will be verified and authenticated against the JMC central server.
* Able to launch other JMC applications once users have been verified and authenticated.
* The implementation and enforcing of coding standards.