

## Enterprise Solutions 365 Project

This document is a guide and aims to summary what has been done in the project given by Enterprise Solution 365 to Abdullah Haydar.

Firstly, I declare that all the work done within this project has been done by myself (Abdullah Haydar), any additional resources that were used are referenced under references at the end of this guide.

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## Project Assumptions

To eliminate constant communication and getting a working solution ready as quick as possible, I have made many assumptions. If these assumptions are incorrect, kindly let me know.

The following assumptions were made:

1. HR has access to database
2. All employee records are to be sent to the bank
3. All employee records needed by the bank are in one table

## Tools Used and Explained

The project can be found in the solution folder. I used WPF (.NET Framework 4.6.1) to create a GUI Application.

In the project there four folders: ERPDatabaseManager, SharedFodlerManager, Models and Scheduler.

The Models folder contains a class that represent the Database and Shared Folder credentials. The Database class further has a ToString method that returns a connection string both classes are singletons.

The ERPDatabaseManager folder contains and interface with three methods and class that implements the interface with a singleton instance.

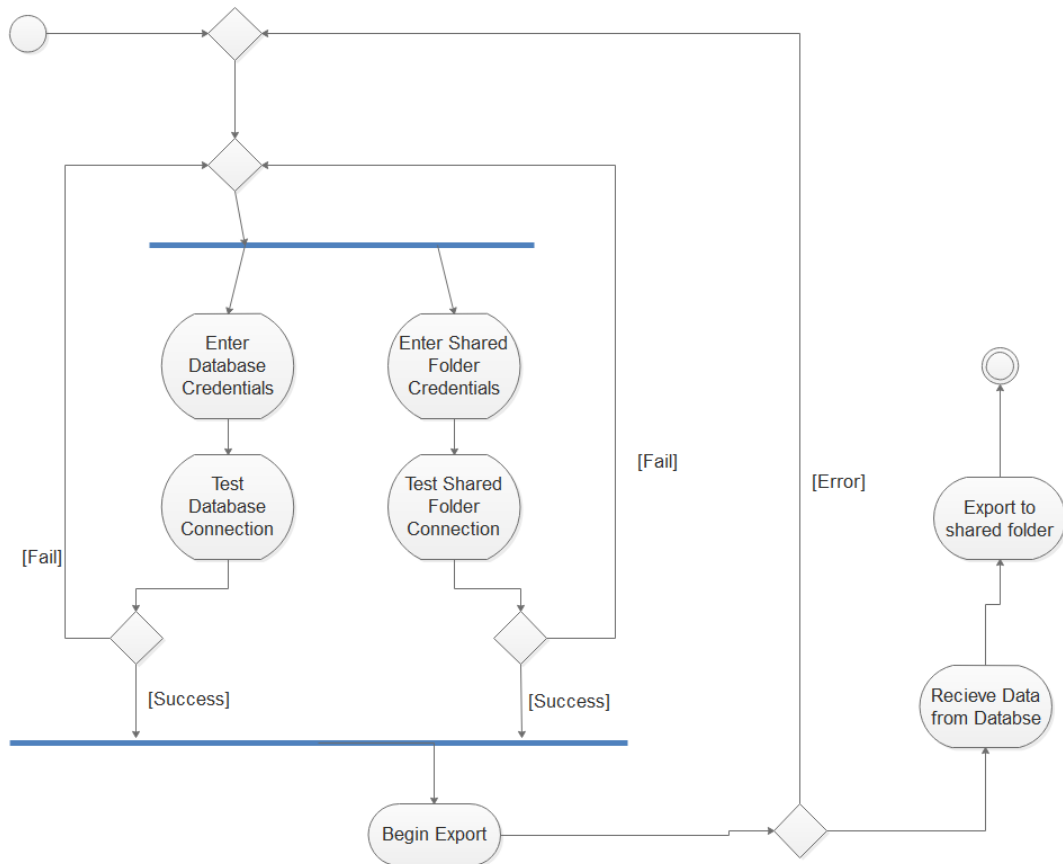
The SharedFolderManager folder has an interface with two methods in it, a class that implements the interface and NetworkConnection class that implement IDisposable found on github.

The Scheduler folder contains an interface with two methods and a class that implements the two methods. The MonthlyTask class is called when the application starts. It first checks if the monthly task is set already. If it is not set then it sets a task to run the program on the 24<sup>th</sup> of every month at 9am.

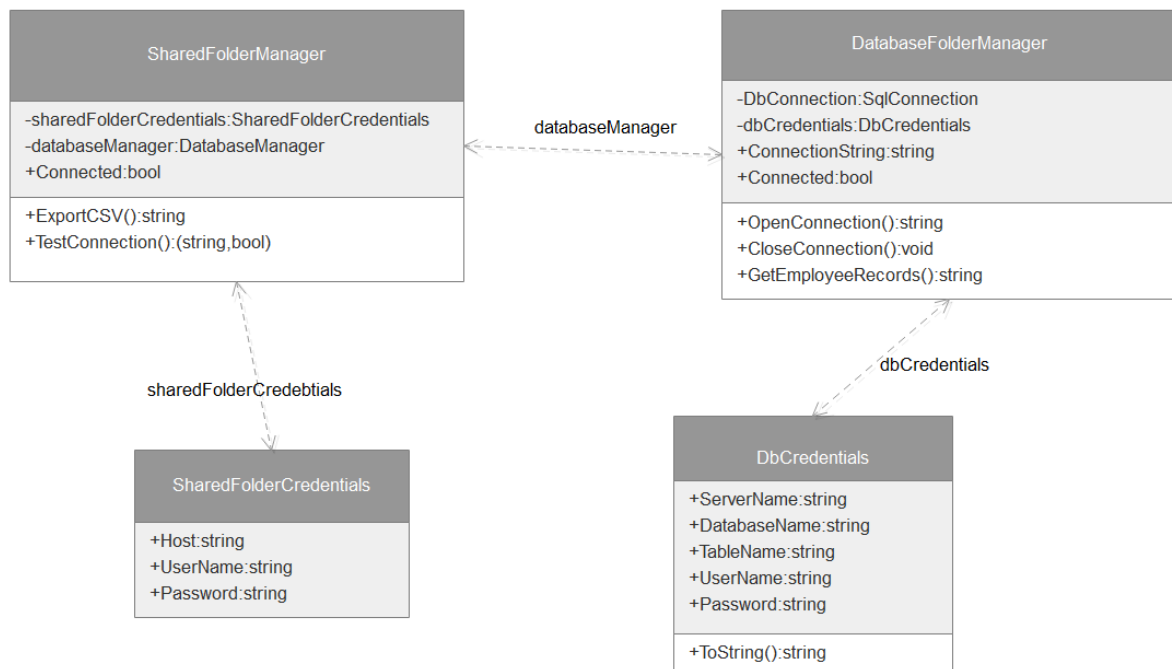
The code mainly response to button click events, which can be found in the MainWindow.xaml.cs file.

Many Improvements can be made to enhance the usability, security and design of the project. If there is a need to improve on anything let me know so that I can do so.

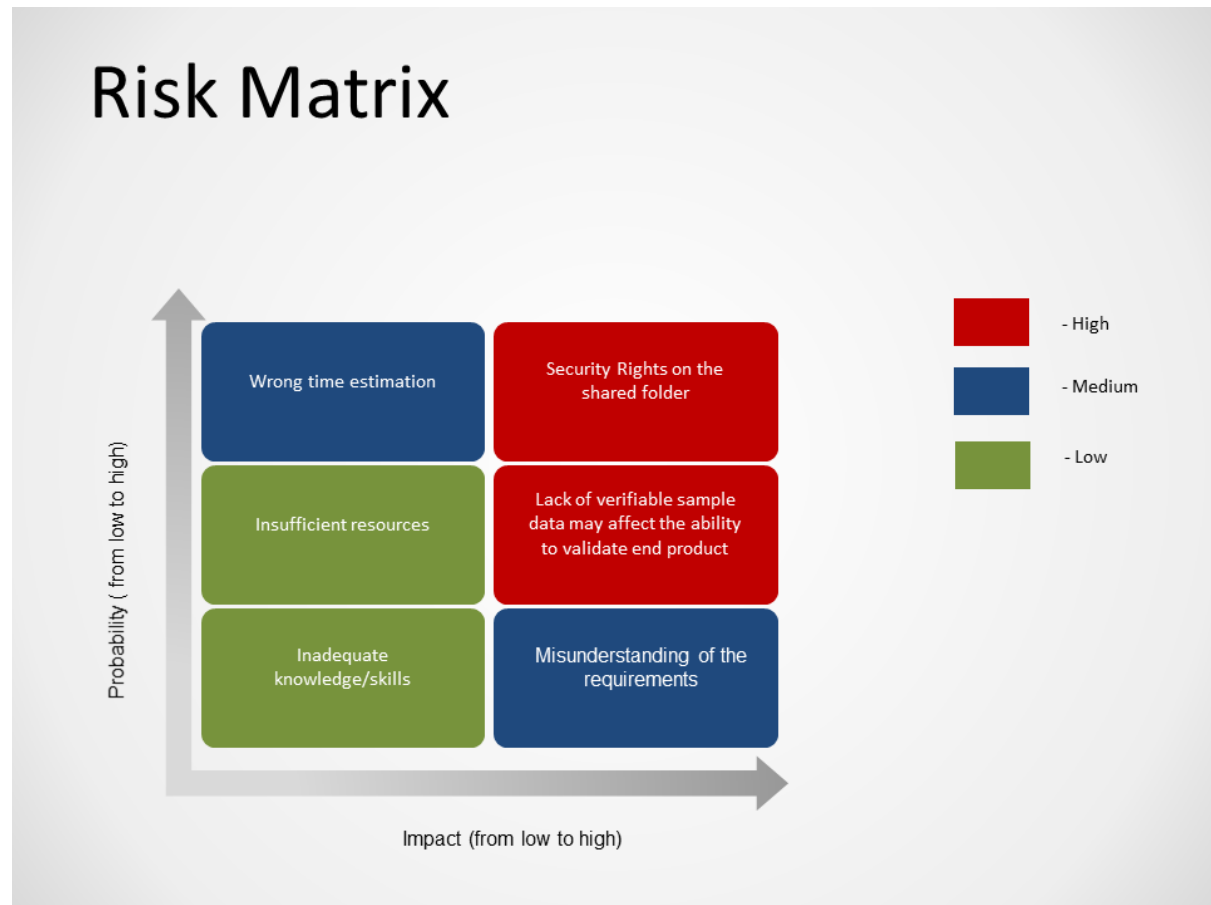
# Architecture of Project



## Class Diagrams



## Risks Involved in Project



## References

Pluralsight Courses:

1. Picturing Architecture: UML (The Good Bits) and More
2. WPF Productivity Playbook
3. Clean Architecture: Patterns, Practices, and Principles
4. WCF Jumpstart

Links to online resources:

1. <https://www.castsoftware.com/research-labs/software-development-risk-management-plan-with-examples>

Github:

1. Network Connection code comes from here:  
<https://gist.github.com/AlanBarber/92db36339a129b94b7dd>

# Usage Guide

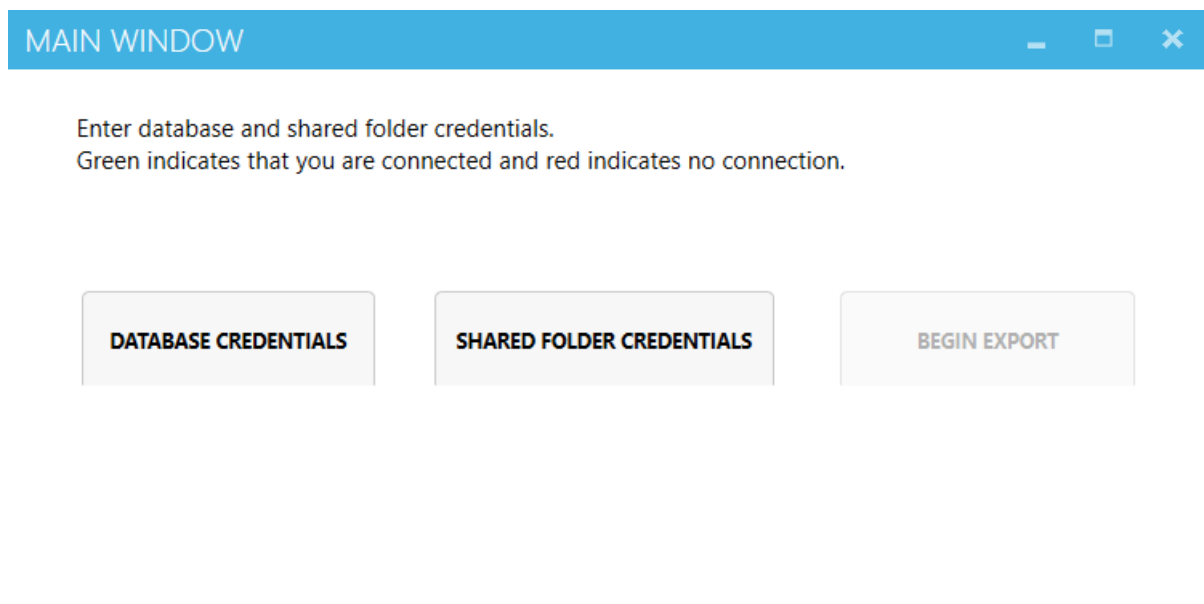
Prerequisites:

1. Access to a SQL SERVER Database
2. Access to a locked down shared folder

When the program starts then a check is done to see if there is a task that will run this program on the 24<sup>th</sup> of each month at 9am. If there isn't a task then one is created in the Task Scheduler.

Then main window opens up.

Steps to complete export:



MAIN WINDOW

Enter database and shared folder credentials.  
Green indicates that you are connected and red indicates no connection.

**DATABASE CREDENTIALS**      **SHARED FOLDER CREDENTIALS**      **BEGIN EXPORT**

**Step 1:** Click Database Credentials Button

A window will pop up with input fields to enter database credentials.

DATABASE WINDOW

SQL SERVER CONNECTION

Server

Database

Table Name

User name

Password

TEST

OK

CANCEL

Once Complete click “Test” to verify Connection. If Connection is good, button appears green otherwise it will be red.

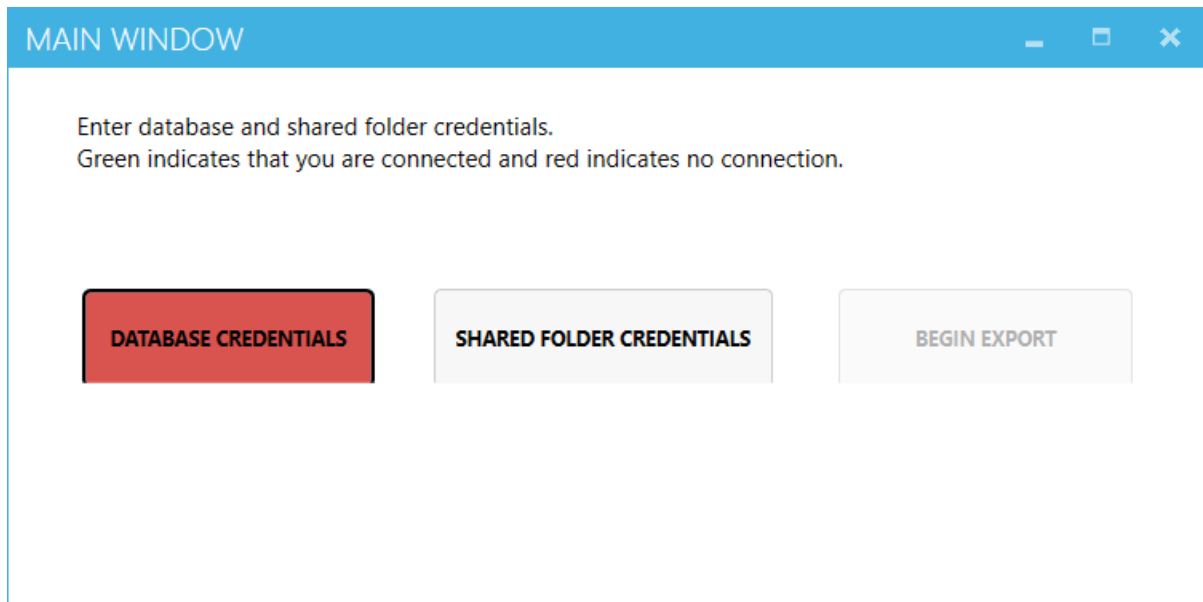
MAIN WINDOW

Enter database and shared folder credentials.  
Green indicates that you are connected and red indicates no connection.

DATABASE CREDENTIALS

SHARED FOLDER CREDENTIALS

BEGIN EXPORT



MAIN WINDOW

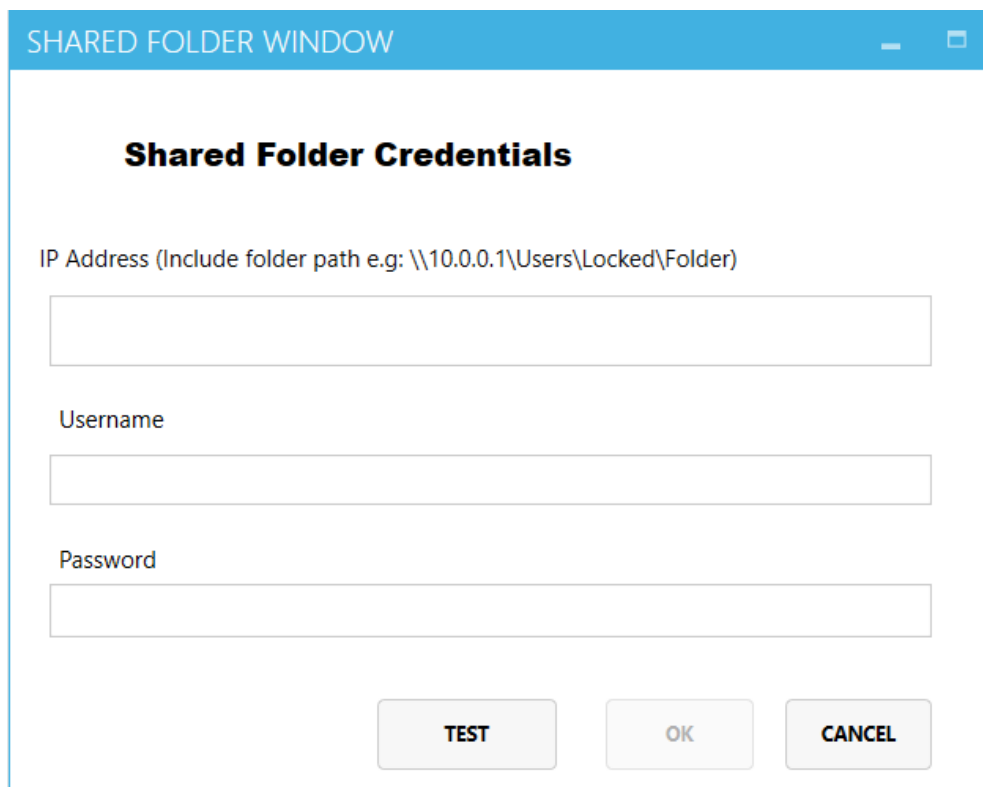
Enter database and shared folder credentials.  
Green indicates that you are connected and red indicates no connection.

**DATABASE CREDENTIALS**   **SHARED FOLDER CREDENTIALS**   **BEGIN EXPORT**

Click Shared Folder Credentials Button to enter locked down shared folder credentials.

In this the case the IP Address must be used instead of the Host PC Name.

To find the IP address in command prompt type in ipconfig and look for IPv4 Address.



SHARED FOLDER WINDOW

**Shared Folder Credentials**

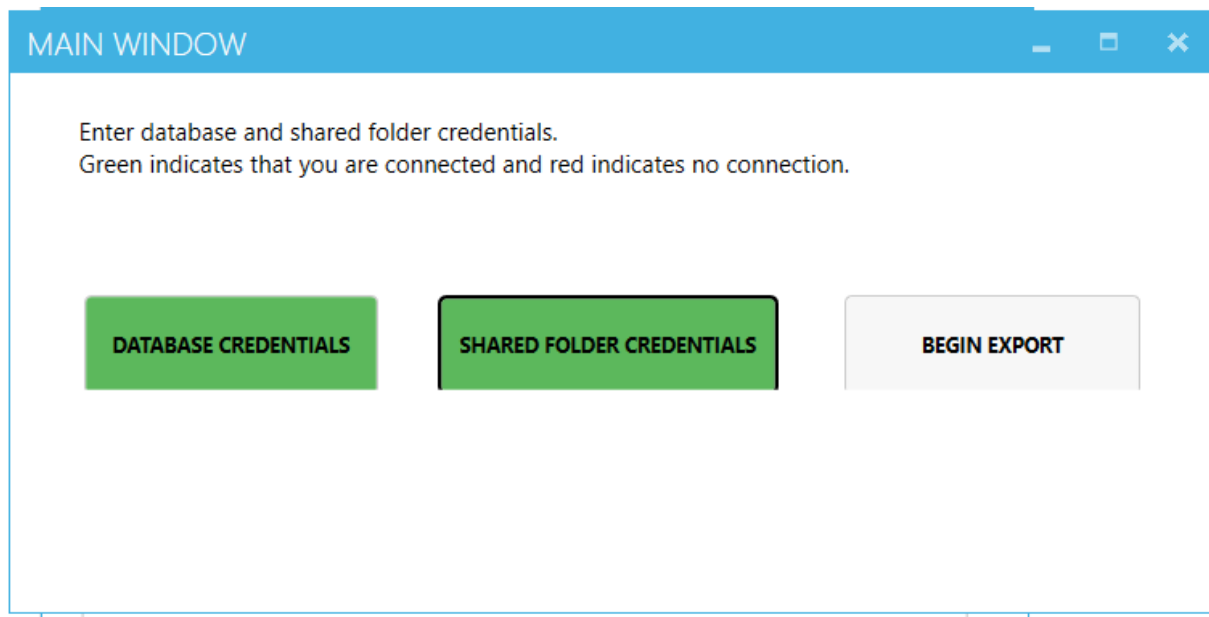
IP Address (Include folder path e.g: \\10.0.0.1\\Users\\Locked\\Folder)

Username

Password

**TEST**   **OK**   **CANCEL**

Once both database and shared folder credentials have been verified the the Begin Export button will be enabled.



Click the Begin Export. If everything goes well then export will be complete. The file will be saved on the locked down shared folder as Month\_year (e.g: April\_2018)