

Computer Science Advising Tool Database Handler Setup

Last Place Champions
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Chapter 1

Overview

This document explains how to compile, daemonize, and use the Database Handler service.

Chapter 2 explains the process of taking the source files provided by the Developers and compiling them into a runnable application.

Chapter 3 explains the process of creating the service, including the process of creating the DBH.service file, as well as where to place the service file, and other accompanying files in the system.

Chapter 4 explains the structure the DBH.ini file must follow in order to function properly, and what changes can be made by the administrator.

Chapter 5 explains the process of setting up the tables in the MySQL database, and details important structural requirements.

Chapter 6 explains the process of setting up the DB4O databases.

1.1 Requirements

In order to run the Database Handler, the server must be running on the Debian 9 operating system, and the dotnet core SDK version 2.0.x installed. Information on installing the dotnet core SDK on Debian can be found here: <https://docs.microsoft.com/en-us/dotnet/core/linux-prerequisites?tabs=netcore2x>

Chapter 2

Compiling

This chapter goes over the process of compiling the provided source files into the assemblies which can be run by the dotnet runtime. It is assumed that the source files are in the same folder structure as they were supplied by the Developers, and all files are present.

2.1 Compiling on Windows

Compiling the Database Handler (DBH) on Windows is the simplest way to create the assemblies, and it is the recommended way of compiling.

1. Open a command prompt, and navigate to the directory containing the file `CWU_Advising_Code.sln`
2. Execute the command: **dotnet publish -c Release -r debian-x64**
The build output should look like this: `¡TODO INSERT PIC!`

Now, the output directory should contain the directory `"/netcoreapp2.0/publish"`. This publish directory contains all required files to run the DBH, and it should not be altered.

2.2 Compiling on Linux

Compiling the Database Handler (DBH) on linux must be done by manually compiling the `Database_Object_Classes.csproj` first, and after that the `Database_Handler.csproj`.

1. Open a terminal, and navigate to the directory containing the file `Database_Object_Classes.csproj`
2. Execute the command: **dotnet build -c Release**
The build output should look like this: `¡TODO INSERT PIC!`

3. Navigate to the directory containing the file Database_Handler.csproj
4. Execute the command: **dotnet publish -c Release**
The build output should look like this: ¡TODO INSERT PIC¿

Now, the output directory should contain a directory ”/output/netcoreapp2.0/publish”. This publish directory contains all required files to run the DBH, and it should not be altered.

2.3 Next Steps

In the next steps, we will refer to the directory ”/output/netcoreapp2.0/publish” as the publish directory. This directory will be used in the Creating the Service chapter to create the daemon that will run the DBH.

Chapter 3

Creating the Service

3.1 DBH.service File

Chapter 4

DBH.ini File

Chapter 5

MySql Setup

Chapter 6

DB4O Setup