**CS 4103 Advanced Java Assignment 8 10 points**

**Due: 12/1 at 5pm**

**Email your finished java file and also paste it into this Word document and send both to me at** [**harringp@nsuok.edu**](mailto:harringp@nsuok.edu)

**Chapter 22, 23, and 24: multithreading, internet networking, and java database connectivity:**

1. See the source code from the “CS 4103 assignment 8 source code” zip file, unzip and modify the code to do the following:
   1. Modify BankServer.java and Bank.java to be multithreaded.
   2. Compare the difference between the multithreaded versus single threaded when run with the other programs. If the client-server code was unable to run in either case, observe the errors and hypothesize the causes for the errors.

Before Multithreading:

Text

Description automatically generated

After Multithreading:

Text

Description automatically generated

1. Why is the *telnet* protocol not the best choice for internet connectivity in the 21st century?

It is unsecure sending data over the internet in plain text and there are no authentication policies or Data encryption techniques for telnet causing security risks.

1. Why do most websites use *https* instead of *http* for connections?

HTTPS is HTTP with added TLS encryption making it safer and more secure

1. What is the jdbc driver? Does Microsoft have its own driver for C# or Visual Basic?

The JDBC driver is what enables a java application to interact with a database. Microsoft uses the .NET framework for interaction with C# and Visual Basic.

1. Why do database sql queries embedded into java programs have a try…catch statement? What would be a good exception to handle?

Try catch statements handle exceptions and errors that occur during runtime. A good exception to handle would be failing to connect to a server IE

TRY{

Connect to server

}

Catch{

Connect to backup server

}