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CIS 245 ONL01

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Lab #11

***This is a 2-part assignment:***

**\*\* NOTE: you will need to download the jdbc driver before you can do this assignment**

***Part 1:***

Using **JDBC (Java Database Connectivity -- how you connect Java with SQL)**, write a simple Java program that connects to your SQL Server database and displays some of the data from your database (pick a table other than the CUSTOMER table since that is what I gave you in the attached sample)

I have attached a sample Java program that runs a "select" statement and then walks through the result set one ROW at a time.  Make a copy of this program and CHANGE the SQL statement to run a select from another table other than the CUSTOMER table that I used.

**NOTE**: You must change the username and password to YOUR username and password for SQL Server;

also change the database name to your database on SQL Server

Submit your changed "select" program (.java file only) here for credit.

***Part 2:***

Using  **JDBC (Java Database Connectivity -- how you connect Java with SQL)** , write a simple Java program that connects to your SQL Server database and runs a SQL statement that INSERTS data into your database (pick any table)

NOTE:  Start with the sample program that I attached for a Part 1 sample; you will be making the following changes:

1) change the SQL statement from a select statement to an insert statement (make up the values that you are inserting but make sure they are the correct data type.

2) you do not need the loop since there are NO rows in the result set.

3) IMPORTANT: use an execute or executeUpdate method not an executeQuery and don't try to fill a resultset since there is none.

Submit your "insert" program (.java  file only) here for credit.

Google the web for lots of other sample code on how to connect to a database from Java using SQL Server:

example:   <http://stackoverflow.com/questions/2451892/how-do-i-connect-to-a-sql-server-2008-database-using-jdbc>

**NOTE: This is an extra-credit Lab -- if you do this correctly, you can add 2 points to your overall grade!  (you can get 22 points out of 20 points for your Lab grade!)**

7.1 What arc Bl systems?

7.2 How do BI systems differ from transaction processing systems?

7.3 Name and describe the two main categories of BI systems.

7.4 What are the three sources of data for BI systems?

7.5 Summarize the problems with operational databases that limit their usefulness for BI applications.

7.6 What is an ETL system. and what functions does it perform?

7.7 What problems in operational data create the need to clean data before loading the data into a data warehouse?

7.8 What does it mean to transform data? give an example other than the ones used in this book.

7.9 Why are data Warehouses necessary?

7.10 Give examples of data warehouse metadata

7.27 Define distributed database.

7.28 Explain one way to partition a database that has three tables: Tl, T2, and T3.

7.29 Explain one way to replicate a database that has three tables: Tl, T2, and T3.

7.30 Explain what must be done when fully replicating a database but allowing only one

computer to process updates.

7.31 If more than one computer can update a replicated database, what three problems can occur

7.32 What solution is used to prevent the problems in question 7.31?

7.33 Explain what problems can occur in a distributed database that is partitioned but not replicated.

7.34 What organizations should consider using a distributed database?

7.35 Explain the meaning of the term object persistence.

7.36 In general terms, explain why traditional databases arc difficult to use for object persistence. 7.37 What does OODBMS stand for and what is the purpose of an OODBMS? 3.38 According to this chapter, why were OODBMSs not successful?

7.39 What is an object-relational database?

7.40 What is Big Data?