**CSCI 4125/5125 Course Project**

**Data Models and Database Systems**

**Fall 2023**

**Course Project**

**Phase 9: JDBC**

**Due: Thursday, 11/16 @ 11:59pm**

**Reading:** Silberschatz Chapter 5

**Submission Guidelines:**

1. This assignment is worth 60 points for all students.

2. It is your responsibility to make sure all files are readable and submitted on time.

**Submission:**

* Submit a Java source code file and a screenshot that demonstrates your running program. An example screenshot is included in this assignment.

**JDBC with Prepared Statements**

**Introduction.** Your task is to write a Java application that generates an invoice for a given customer ID and order date. The invoice will compute some of the derived columns we saw in Phase 2, specifically product cost, shipping cost, and total cost.

**Functionality.** Your application must include the following:

* Accept two arguments: a customer ID and an order date.
* When you use these two arguments in a SQL query, you are required to use prepared statements. Points will be deducted if you use string concatenation to put these values into a SQL query.
* If the customer has not placed an order on the given date, print a message “No invoice to generate” and return.
* Provide an invoice header that includes: order date, customer ID, and customer name.
* List all products in the order, the quantity, the price/unit, and the total line price (i.e., quantity \* price/unit).
* Display the total cost for all products, the shipping cost ($0 if total product cost >= $35, else $10), and the total cost (i.e., total product cost plus shipping cost).
* You are welcome to add additional information if you’d like to.

**Testing.** The next page contains some example values passed to my application along with the invoice they return. Your formatting does not need to match mine exactly, but it must contain all of the relevant information listed above.

A screenshot of a computer screen

Description automatically generated