UNIVERSITY OF THE WEST INDIES, CAVE HILL CAMPUS

Department of Computer Science, Mathematics & Physics

SWEN2005 Database Systems

Due: April 6th 2020

Group Major Project

A Simple POS (point-of-sale) Program

Mr. and Mrs. Jones run a small neighborhood variety shop. They currently use a cash register to record their sales. The cash register have work fine over the years but the Joneses now has a need to see the actually names of the products that were sold for any given period of time.

They also want to have an accurate picture of the sales figures and be able to reconcile it with the products sold.

The Joneses have reached out to your group to develop a simple POS program to help them in the proper running of their shop.

The system requirements are:

- A minimum of three (3) tables in the database, **Products**, **SaleSummary** and **SaleDetails:**
  - **Products** table, use to store the product names, price, quantity etc.
  - **SaleSummary** table, use to store sale date, number of items sold, total amount, etc.
  - **SaleDetails** table, use to store products and amount of each product sold

- A minimum of two (2) GUIs, **Products** and **Sales**:
  - These screens will be used to add, update, retrieve and deleted records from the respective tables.

- A minimum of two (2) Reports, **Products** and **SalesDetails:**
  - **Products** report should display all the record in the products table order by name.
  - **SalesDetails** should display at a minimum, the date, product and amount sold, ordered by date.

The technical requirements are:

- The GUIs can be built using, Python, Java, HTML or any other programming language suitable for the task.
- All tables should be in 3NF.
- Primary and foreign keys should be implemented in the appropriate tables.

- Referential Integrity should be enforce at the database level, i.e if a **SaleSummay** record is deleted all associated records in the **SaleDetails** table should be deleted as well, etc.
- You're required to submit an ER diagram detailing all the fields of the tables and the relationship amount the tables.
- You're required to submit a copy of the **CREATE TABLE** commands used to create the tables in your database.

The group requirements are:

- This project will be done in groups of no more than 4 persons.
- This project will be submitted in the form of a classroom presentation.
- Each team member is expected to play an active role in some aspect of this project, and they will mention they role at the start of the presentation.

Note:
This is a fairly substantial project that will be worth 60% of your course work and I am here to lend any assistance needed, but I highly recommend that you start working on this project right away.

THE END