

# Faculty of Engineering & Technology – Computer Science Department

**Second Semester 2021 – 2022** 

# **Database Management Systems - Comp333**

Phase 1: Espresso soft drinks company – Accounting software

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### **Summary:**

The aim of this project is to reduce the work of espresso soft drinks company, by making them supply their machines easier and faster, and to see the connection with the customer viewing all his needed information, and also for the customer to be connected with his own supplier and for the machines that has not been sold yet with their current warehouses too.

#### **Introduction:**

The client is espresso soft drinks company. A company that imports soft drinks machines from the outside and sells them to different locations in the west bank, the company lies in Al-Birah City, and the customers are from all around the Palestinian West Bank.

Our work is to make a program that stores and manages their sales and machines data, which will help in reducing their accountancies time and make their work much easier, by making this database system that includes the company's: customers, machines with all their different types, types of soft drinks with all the quantities, warehouses, and all located suppliers too.



Figure 1: AD for the customer's Company

### **Data Requirements:**

- **Customers:** who each one has his own ID, name, type of business (like supermarket or café), address, phone number, pay type, and date of purchase, data of delivery.
- Machines: (that can be either sold or still at the warehouse), a machine has an identifier ID, production date, warranty date, a stored machine has a warehouse, and a sold machine has an owner customer that has been sold by a supplier, and each machine has a type that defines the rest of its data.
- **Types of machines**: a type can be defined by its color, each type has a number of provided drinks with their quantities and types of cups too, and its one static price too.
- **Suppliers**: where each city has one supplier who deals with the customers of that city, each supplier has an ID, a gender, a name, an address, an age, job's starting date, and a salary that depends on his/her sales.
- **Types of drinks:** To specify the kind and type of the drink that the machine could provide, for example: coffee, chocolate, cappuccino, and Nescafe. Each type has a name, an identifier code, and a static price too.
- **Drinks:** The quantity of a type of drink, that has a serial number identifier, a date of product, and a count of the summation of the quantity, if the drink is sold then it has an owner customer, and if its not then it has a storing warehouse.
- Warehouse: the company can have more than a warehouse all in different areas, that stores the unsold machines and different quantities of drinks, warehouses are defined by numbers, each warehouse has an address and a rent price too.
- Every customer must have one supplier depending on his location, and the supplier could have many suppliers, and the customer can buy more than one machine.
- Every machine has to have a type that defines it, and each type has many machines.
- Each imported machine that is hasn't been sold yet, is stored in a warehouse that could store in it many machines.
- Each drink has one type of drinks, and each type has many drinks.

- Each sold quantity of drink is owned by one customer, and each customer could buy to own many quantities of drinks, and each not sold quantity of drink is stored in one warehouse and each warehouse contains many quantities of drinks
- Each type of machine could have many types of drinks, and each type of drink could be in many machines.

## The used technology:

This software is built in Java programing language and the database using MySQL, the user interface is made by using scene builder, all users will share the same code using GitHub where each user has their own pc with an operating system of windows 10.

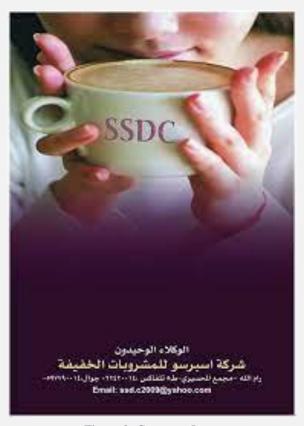


Figure 2: Company Logo