CST2355 – Assignment 1

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Application Description

Main Details:

The main purpose of this application is to allow the user to manage appointments for appliance repairs. It provides enough functionality to manage each aspect of an appointment appropriately, including records for each customer, appliance, appointment, and the technicians assigned to the appointments.

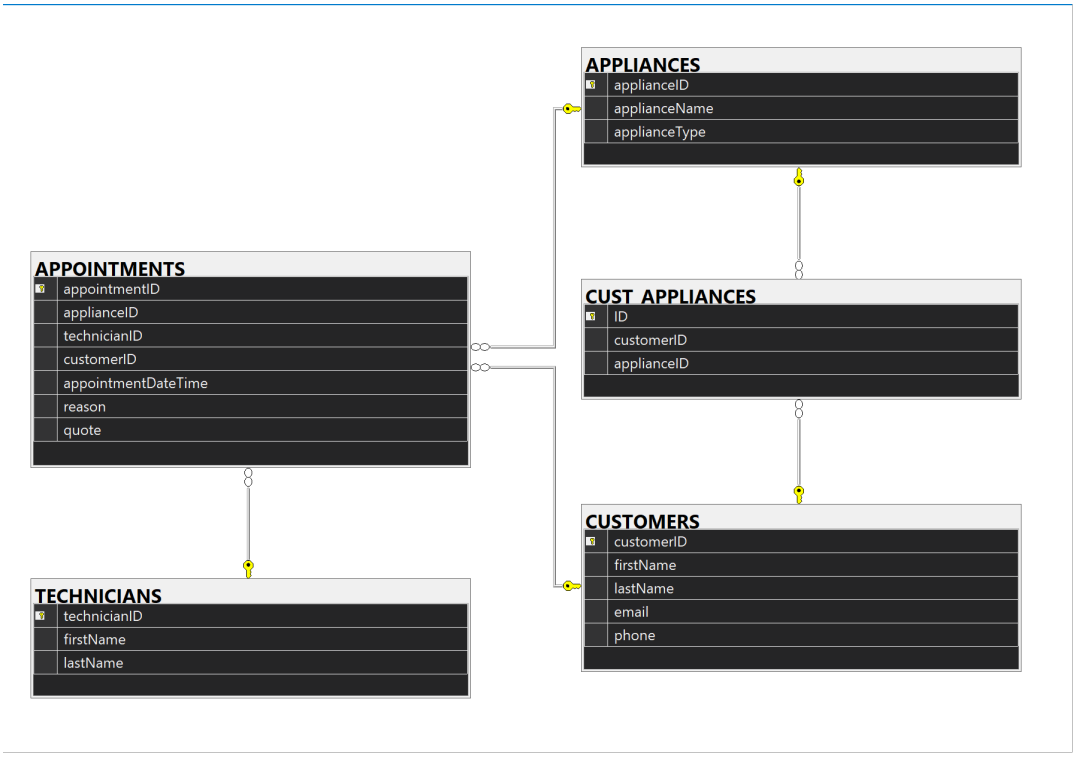
Through forms within the application, users can quickly create new customer profiles, add new appliances to the database, and schedule a customer's appointment down to the second if necessary. It also allows the user to assign a technician to an appointment, allowing for simple employee performance recording.

This application not only allows the managing of table records themselves, but also provides the ability to view important data summarized in reports. Some examples of the data visible are:

- A detailed list of all customers appointments, including the time of appointment, appliances attached to appointment, cost of the repairs, and technicians assigned to the work.
- A summary of sales/shop income grouped by month and including a grand total of all income.
- A detailed list of the appliances belonging to each customer in the database.
- A summary of repair sales made by each technician.

Database Structure:

This application allows user to manipulate tables and records, based on a structure that includes customers, appliances, appointments, and technicians. A diagram of the databases structure can be seen below.



Through this diagram we can see the relationship that each table has to each other, as well as how an application would need to be structured to interact with the data effectively.

In the initial proposal, there was a different layout which connected (in order) Customer, Appointments, Technicians, Appliances. This proved to be a difficult setup when entering into the Appointments table, causing missing records as well as duplicate data. This also didn't allow for an easy way to handle the many-to-many relationship between customers and appliances. This was solved by rearranging the order of tables and introducing a junction table between Customers and Appliances.