Timo's Tots - Ethan Hebert, Elijah Payton, Grant Nelson, Spencer Rochel
CSC430 Project - Buc-ee's Database System
Part 1A - Description of the Mini-World

For each TICKET, the database maintains information on the identifying ticket number [Ticket_no] and time of submission [Time]. Each ticket must be related to an EMPLOYEE who fulfills the ticket order [FULFILLS]. Each employee has a name [Name] which is a composite attribute split into first name [Fname] and last name [Lname] and identifying Social Security number [Ssn]. An employee can fulfill multiple tickets. Each ticket must also be related to an employee who cashiers the ticket [CASHIERS]. An employee can cashier multiple tickets.

Each ticket also has a CUSTOMER who placed the ticket order [ORDERS]. A customer can only exist through the relationship of ordering a ticket, making the customer a weak entity type. Each customer has a name [Fname] and identifying ticket number [Ticket_No]. A customer can order only one ticket at a time, and separate orders are recorded as separate tickets.

The database also maintains information on menu items such as a DRINK. Each drink has a price [Price], type [Type], size [Size], and identifying item number [Item_No].

FOOD is also maintained by the database. Every food item has a size [Size], price [Price], and identifying item number [Item_No]. FOOD has three subclasses, DESSERT, SANDWICH, and JERKY. Each food item must belong to one and only one of these subclasses. Each dessert has a name [Name]. Each jerky has a flavor [Flavor]. Each sandwich has a bread [Bread], meat [Meat], and toppings [Toppings]. Meat is a multi-valued attribute since sandwiches can have multiple types of meat on them. Toppings is a composite attribute, divided into lettuce [Lettuce], tomato [Tomato], and pickles [Pickles].

Food, Drink, and Ticket are related through a sale [SALE]. Each ticket must belong to the sale relationship as there is no sale without a ticket of order. Food and Drink do not necessarily have to participate in the relationship. Each sale will have a single ticket associated with it and can have multiple foods and drinks.