Nora’s Bagel Bin

Diagram

Description automatically generated

Part A)

1. 1)Diagram

   Description automatically generated

Based on 1NF, I was able to categorize each entity into the corresponding attribute. I mainly used the Bagel Order Form to give me clues as to how the data was being used in the bagel shop. Since 2 PK/FK’s were given, I was able to determine what values had to be PKs for the other 2 tables. Then, I sectioned out the customer info and other bagel order information from the 1NF table. I decided to move customer info to bagel order due to how the bagel receipt example displayed customer info separate from each order line. For the cardinality I determined that 1 bagel order can have many bagel order line items (1:M). Each of those bagel order line items can have many bagels (M:M) as displayed on the first customer receipt (Bagel Order Form).

1. 2)Diagram

   Description automatically generated with low confidence

Based on 2NF’s structure, I kept ‘Bagel Order Line Item’ and ‘Bagel’ as is. Then modified ‘Bagel Order’ into 2 different tables, ‘BAGEL ORDER DETAILS’ and ‘Customer’. I placed all the customer information under ‘Customer’ and placed the remaining bagel entities under ‘Bagel Order Details’. I decided to create a new attribute called ‘Customer’ because there was a list of customer entities. Doing this would be able to separate customer info from any bagel related information. For the cardinality, I kept it the same between ‘Bagel Order Line Item’ and ‘Bagel’, along with ‘Bagel Order Line Item’ and ‘Bagel Order’ from 2NF. When adding ‘customer’ I set it to 1:M because there will be 1 customer who can make many orders

3)

A screenshot of a computer

Description automatically generated with medium confidence

Part B.

B) 1a)

Text

Description automatically generated

B) 1b)

A screenshot of a computer

Description automatically generated with medium confidence

B) 2a)

A screenshot of a computer

Description automatically generated with medium confidence

A screenshot of a computer

Description automatically generated with medium confidence

(all tables)

B) 2b) (individual table outputs on the next page)

Graphical user interface

Description automatically generatedText

Description automatically generated with medium confidenceGraphical user interface

Description automatically generated with low confidenceText

Description automatically generated

B) 3a)

A screenshot of a computer

Description automatically generated

B) 3b)

A screenshot of a computer

Description automatically generated with medium confidence

B) 4a)Graphical user interface, text

Description automatically generated

B) 4b)A screenshot of a computer

Description automatically generated

B) 5)

Graphical user interface, application

Description automatically generated

B) 6)

Text

Description automatically generatedA screenshot of a computer

Description automatically generated with medium confidence(multiples of shop\_id listed)A screenshot of a computer

Description automatically generated with medium confidence (with only 1 column of shop\_id)