**SWEN-220 Entity Relationship Modeling Activity  
Bears-R-Us Securities**

**Problem Statement**

Bears-R-Us is an investment company that provides sound financial advice to its many customers. It has several branch offices scattered around the country that are responsible for managing customer accounts. Each account is managed by a broker in the office where the account was created. Customers are identified by name (last, first) and a phone number. Accounts have an eight digit identifier, the date the account was opened and the account's current status (Active, Closed). Branch offices are identified by their address (street, city). Brokers are assigned to a single branch. Each broker has a name and phone extension. Each branch office is managed by one of the brokers at that branch. The start and end dates of each broker at their branch office are maintained for personal records. The start and end dates of management appointments are also maintained.

1. List the Entities to be included in the E-R Model:
2. List the attributes to be included in the E-R Model:
3. List the Relationships to be included in the E-R Model. Identify the cardinality of each relationship (1:N, N:M) and the Role of each Entity.
4. Draw an Entity Relationship Diagram (ERD)

### Entities

### Customers Accounts

### Branch Offices Brokers

### Relationships

### Customers open Accounts (N:M)

### Branch Offices hold Accounts (N:M)

### Each Branch Office is managed by a Broker (1:1)

### Branch Office maintains start and end dates of each Broker as well as start and end dates of management appointments. (1:N)

### Brokers maintain Accounts (N:M)

### Attributes

### Customers: (Name (last, first), phone number)

### Accounts: (8 digit identifier, date account was opened, status (Active, Closed))

### Branch Offices: (address (street, city))

### Brokers: (\*assigned to branch\*, name, phone extension)

### Entity Relationship Diagram

### Name (last, first) phone number 8-digit date opened

### Identifier status

### (N:M) (Active, Closed)

### Customers open Accounts

### 

### hold maintains

### (N:M) (N:M)

### Branch Offices maintains Brokers

### (1:1) manages phone extension

### Address (street, city) branch? Name