

## 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. Due to budget constraints, brokers may need to share the same 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.

List the Entities to be included in the E-R Model:

List the attributes to be included in the E-R Model:

List the Relationships to be included in the E-R Model. Identify the cardinality of each relationship (1:1, 0:N, 1:N) and the Role of each Entity.

Draw an Entity Relationship Diagram (ERD)

#### **Entities**

branch office, customer, account, broker

#### **Attributes**

customer: first/last name, phone

broker: name, phone extension, start date, end date

office: address, manager,

account: id, status, date opened

#### **Relationships (constraints)**

account managed by broker (1:N) or (0:N)

office run by brokers (1:N)

account owned by customer (1:1)

office has accounts (1:N)

#### **Entity Relationship Diagram**

# Bears-R-Us

## Entity Relationship Diagram

