Explanation:
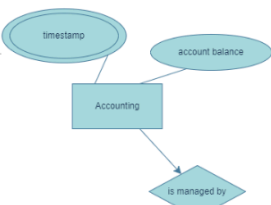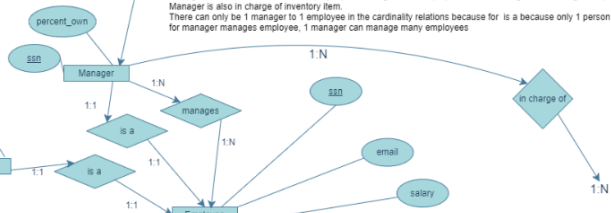
Accounting is an entity, and it contains timestamp which has two circles because this attribute is a multivalue. The multivalues are the date and the time. There is also the account balance attribute in this. Account is managed by the manager, so we put that as a relation.
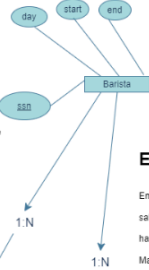
timestamp

account balance

Accounting

is managed by

Explanation: Manager

Accounting is managed by manager, so we have the relation there. Manager's primary key is ssn, other attributes contain percent_own.
Manager has 2 relations towards employee, the manager is an employee and the manager also manages employee.
Manager is also in charge of inventory item.
There can only be 1 manager to 1 employee in the cardinality relations because for is a is because only 1 person can be manager.
for manager manages employee, 1 manager can manage many employees

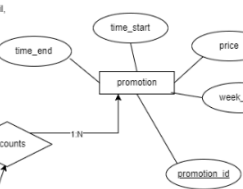percent_own

ssn

Manager

1:N

in charge of

1:N

manages

Explanation: Barista

Barista is an entity that has 3 relations with entity Employee and Entity Order and Entity line_items.
Barista contains primary key ssn, attributes day, start, end.
Barista has 1;1 cardinality to employee because employee can only be 1 barista and vice versa. like multiple baristas cant be one employee, one employee can be one barista

one a barista can sell many orders, they can also make many line items.

day start end

ssn

Barista

1:1 is a

1:1 is a

ssn

email

salary

name

Employee

1:1

Explanation: Employee

Employee is an entity that contains attributes email, salary, name, and primary key ssn. An employee has two sub-entities that it inherits, Barista and Manager.

Explanation: Promotion

Promotion is an entity with attributes time_end, time_start, price, and week_day. Primary key is promotion_id.
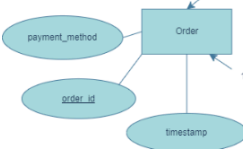There is one menu that a promotion applies to, but one menu can have several promotions for its items.

time_start

time_end

price

promotion

week_day

promotion_id

discounts

1:N

Explanation: Inventory item

Ingredients for items come from the inventory entity. It has primary key inventory_name, and other attributes unit, price, and stock.
One ingredient corresponds 1 to 1 with 1 inventory item.

inventory_name

unit

price

inventory item

stock

comes from

1:1

Explanation: Ingredient

An ingredient is identified by a recipe name from Recipe, so it is a weak entity. An ingredient can't exist without Recipe. An ingredient is one inventory item, and one inventory item consists of one ingredient.

inventory_name

ingredient_id

recipe_name

Ingredient

1:1

unit

quantity

1:N

made of

1:N

Explanation: Menu

Menu is an entity with attributes size, type, price, and temp_drink. Primary key is recipe_name

recipe_name

0:N

size

type

Menu

price

temp_drink

1:1

defines

recipe

recipe_name

1:1

1:N

Explanation: Preparation Step, Recipe

One recipe is made up of several preparation steps, indicating a relation, but one preparation step doesn't belong to many recipes. A recipe is a weak entity because it exists only for a specific menu.
Preparation Step is a weak entity because it needs to be identified by the recipe id in Recipe.

step_name

recipe_name

position

Preparation Step

1:N

make up

1:N

sells

1:N

makes

1:N

Explanation: Order

Entity order has relations with barista, and line items.
Order has primary key order_id, and attributes payment_method and timestamp

payment_method

Order

order_id

timestamp

1:N make up 1:N

come from

N:1

N:1

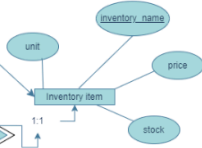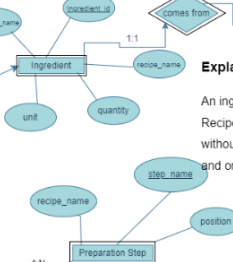lineitems

drink quantity

Explanation: Lineitems

Orders consist of solely of lineitems, so it can be considered a weak entity. Double lines around the shape and the key indicate this. One order can have many lineitems, but each line items must come from one order.

Lineitems has primary key drink, and attribute quantity

1:1

made using

1:1