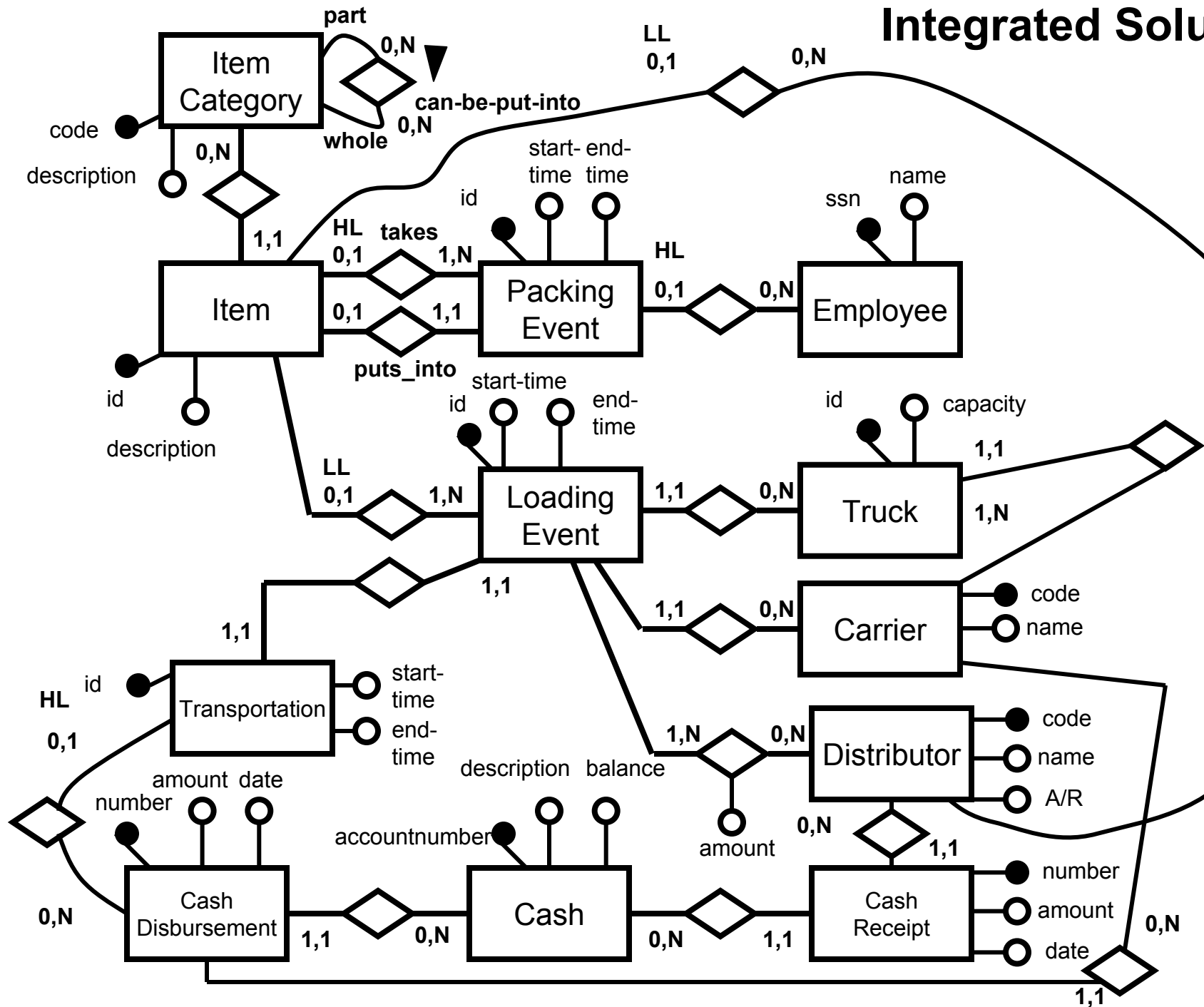




Burn-IT Solution Package

Integrated Solution



(A)

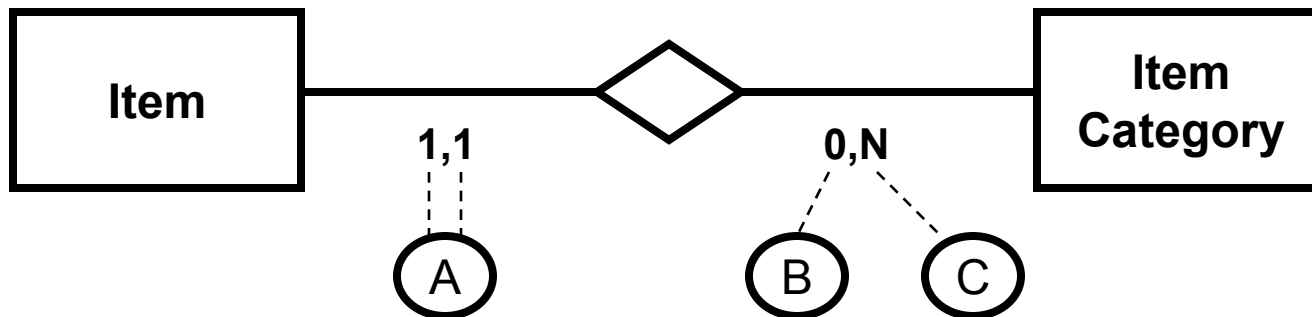
I further classify each item as being of category CD, box, or pallet

(B)

I don't have any items of category container yet.

(C)

Obviously, most of our items are CD's.



A

First, a packing event takes one or more items
Each packing event takes one or more items (at least one).

B

First, a packing event ... and puts them into another item.
A packing event puts items into exactly one item (logistic unit).

C

Not all items are packed. For example, we don't pack pallets.

D

An item can be packed only once.

E

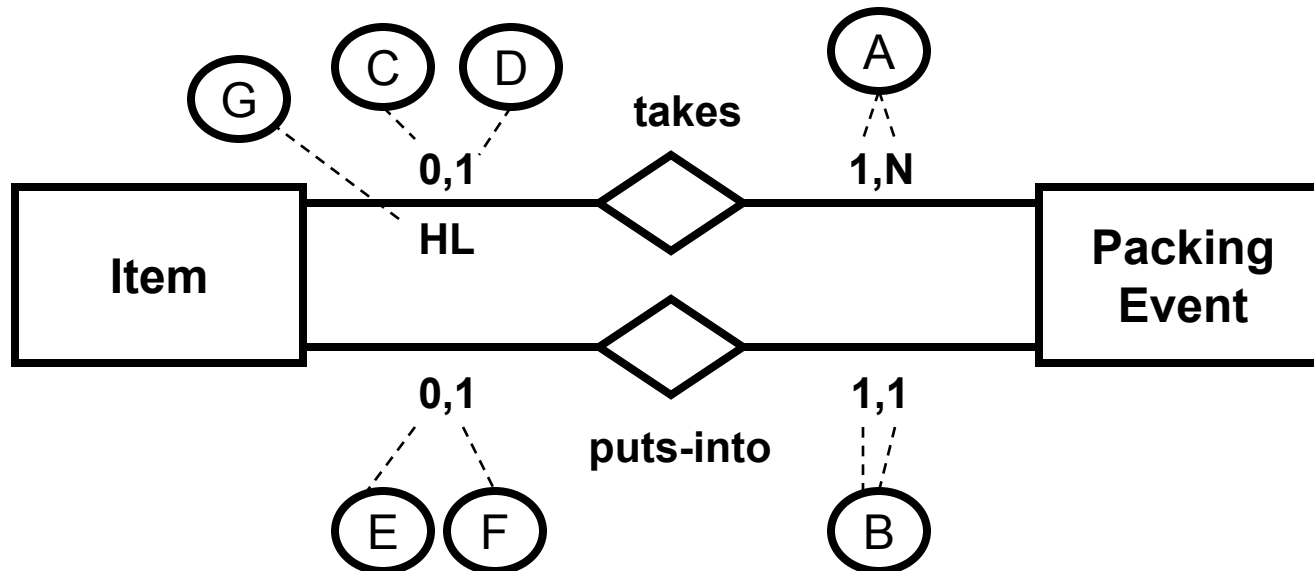
A CD cannot be used as a logistic unit.

F

Logistic units such as boxes and pallets are packed at once; i.e., they participate in one 'packing event' only.

G

We expect more than 85% of our items being packed.



(A)

.... we assign exactly one 'supervising' employee to each packing event ...

(B)

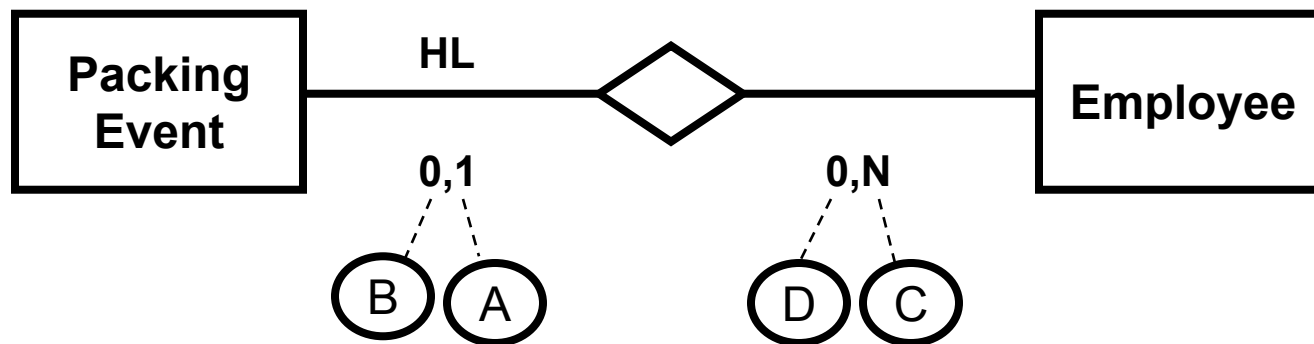
While we assign exactly one 'supervising' employee to each packing event, we don't always record that information. I would be happy if we could record a supervising employee for 90% of our packing events.

(C)

Todd, one of our employees, supervised more than 100 packing events yesterday.

(D)

Melissa, our accountant (and thus an employee) never gets involved with packing events.



(A)

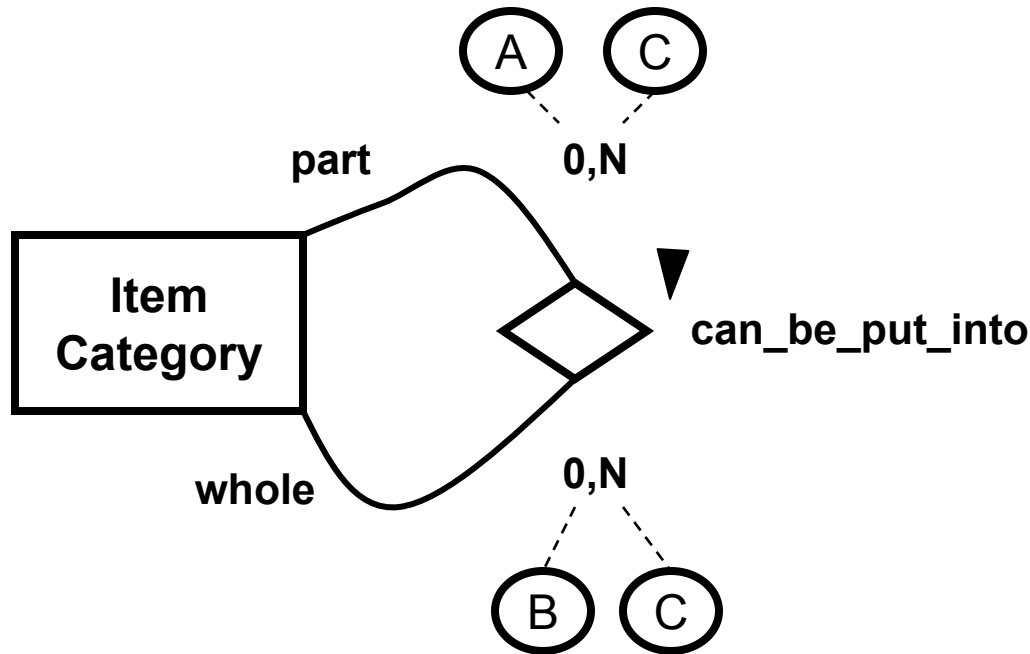
Not all item categories can be put into other item categories. For example, 'Pallet' does not occur in the left column of the 'can-be-put-into' table.

(B)

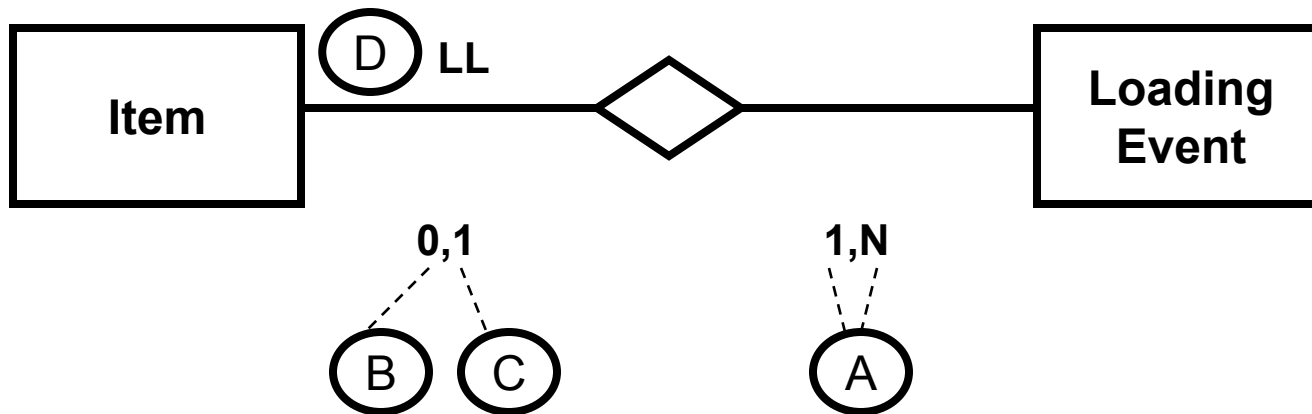
Not all item categories can be logistic units. For example, 'CD' does not occur in the right column of the 'can-be-put-into' table.

(C)

"... an item category can be put into more than one (other) item category and vice versa."



- (A) In essence, a loading event puts a number of pallets (at least one) on a truck.
- (B) “In essence, a loading event puts a number of pallets (at least one) on a truck.” Other items, such as CDs and boxes, do not participate in the relationship with “loading event”; we are only interested in recording which pallets are loaded.
- (C) A pallet can be loaded only once.
- (D) Only pallets are loaded; so, we expect to record a loading event for less than 10% of our items.



A

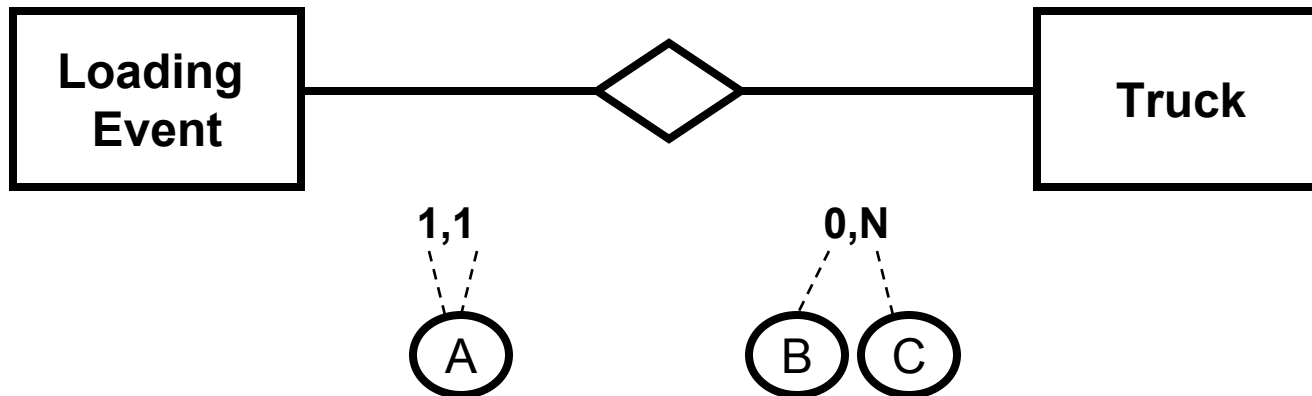
There is exactly one truck per loading event.

B

We ask all carriers to provide us with a list of their truck IDs. A new carrier needs to submit this information (truck IDs) to us at least one week before we schedule a first loading event with that carrier.

C

Most trucks participate in hundreds of loading events.



A

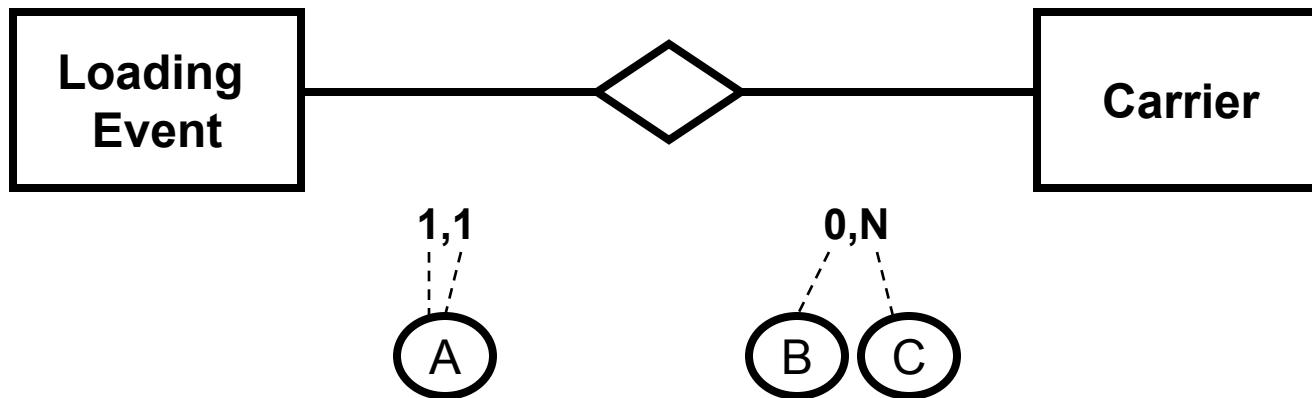
There is exactly one carrier per loading event.

B

We ask all carriers to provide us with a list of their truck IDs. A new carrier needs to submit this information (truck IDs) to us at least one week before we schedule a first loading event with that carrier.

C

“Most trucks participate in hundreds of loading events. There is exactly one carrier per truck.” So, most carriers participate in many loading events.



A

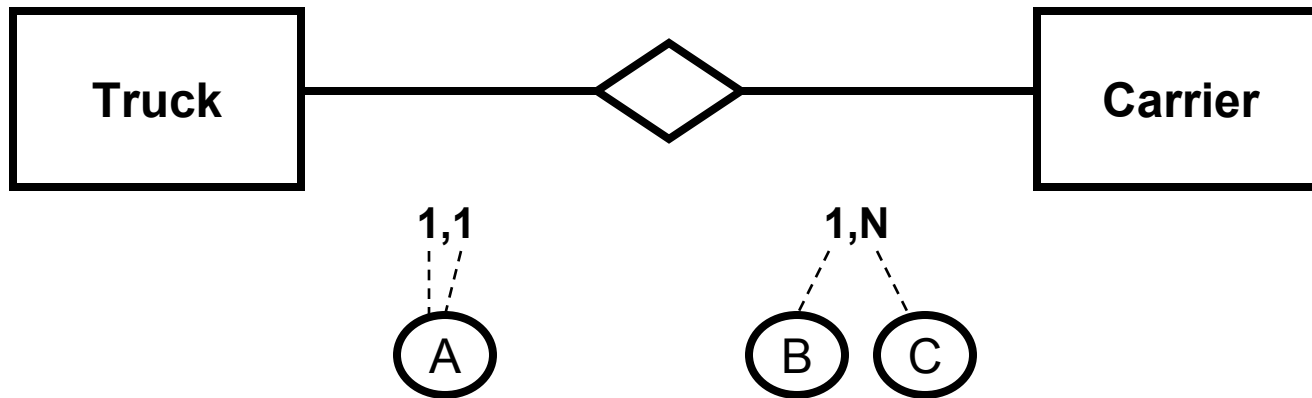
There is exactly one carrier per truck.

B

Only carriers for which we know at least one truck are recorded in our database.

C

All carriers we work with have a large fleet of trucks; at least 25 trucks.



(A)

We also want to record the distribution centers for **each** of the loading events. So, more than one distribution center can be associated with the same loading event.

(B)

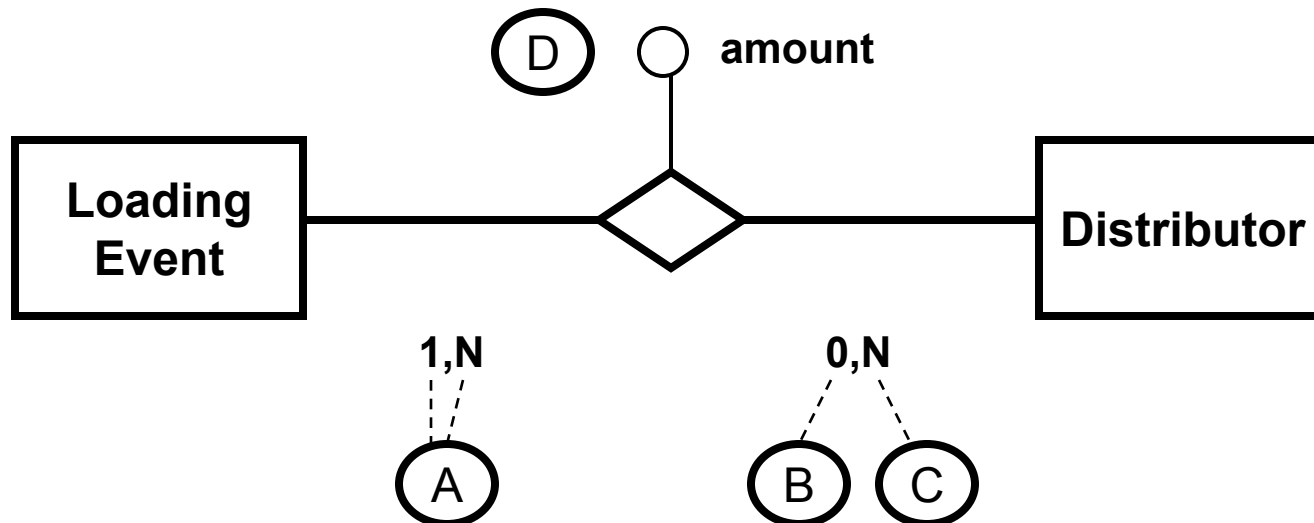
Finally, we would like to record all distribution centers in the North-East and Mid-Atlantic, even when they don't do business with us.

(C)

We have 15 loading events scheduled this week for our biggest distributor; Rock-And-More (located in New Jersey).

(D)

We record the total (\$) amount per loading event per distributor.



(A)

We also have to know which **pallet** goes to which distributor and this information needs to be recorded in the database. We don't record distributor information for CDs and boxes (optional participation)

(B)

There is only one distributor per pallet.

(C)

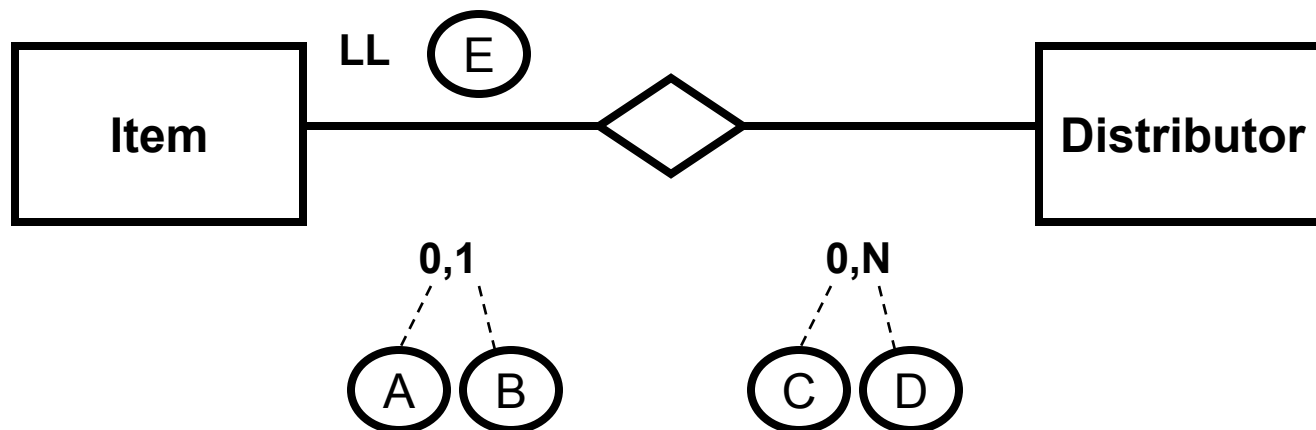
Finally, we would like to record all distribution centers in the North-East and Mid-Atlantic, even when they don't do business with us.

(D)

Many pallets are of course assigned to the same distributor.

(E)

Only pallets are assigned to distributors

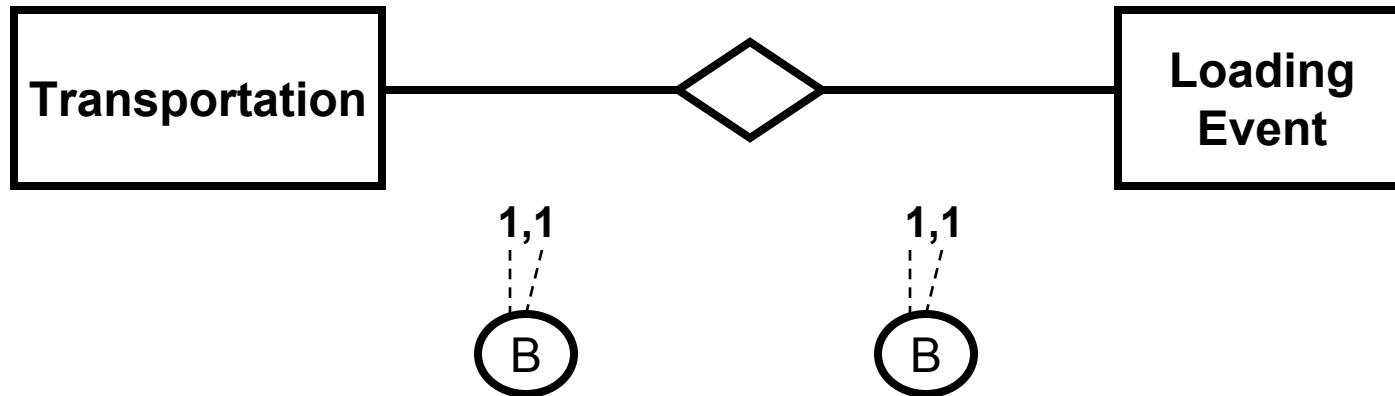


A

There is exactly one loading event per transportation event.

B

There is exactly one transportation event per loading event.



(A)

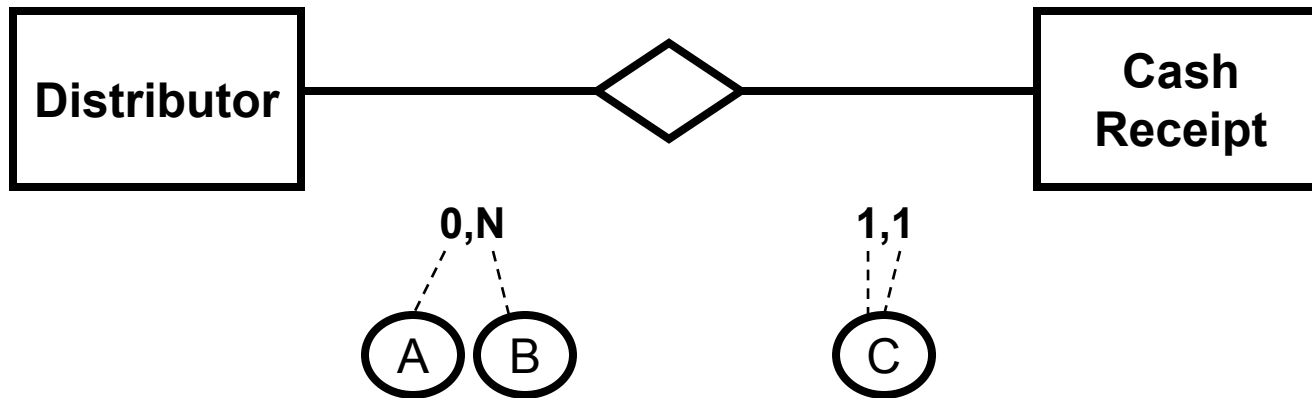
Finally, we like to record all distribution centers in the North-East and Mid-Atlantic, even when they don't do business with us.

(B)

We have received five payments from Rock-And-More this month.

(C)

We record exactly one distributor for each cash receipt.



A

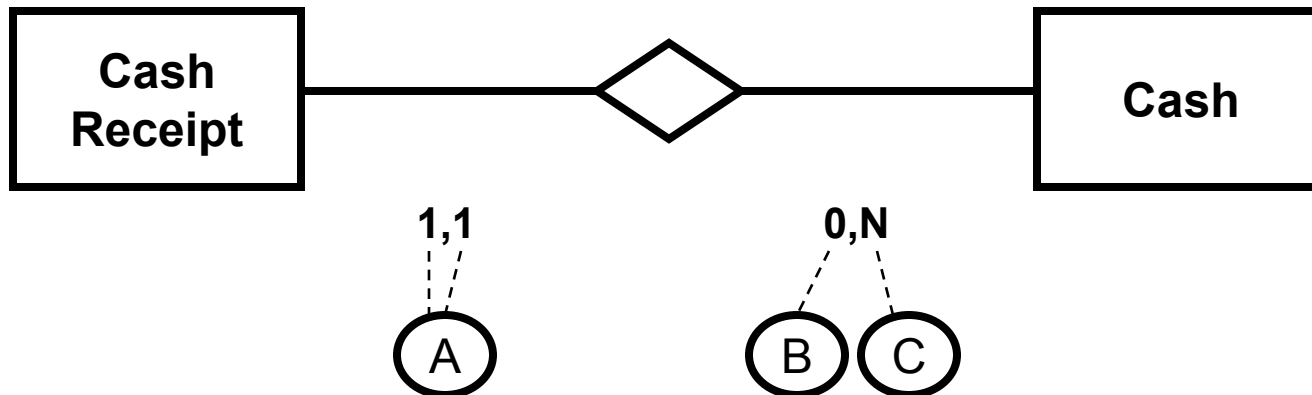
We record exactly one account for each cash receipt.

B

We created a new account yesterday but did not deposit any money in it yet.

C

We put all payments from distributors into the same account.



(A)

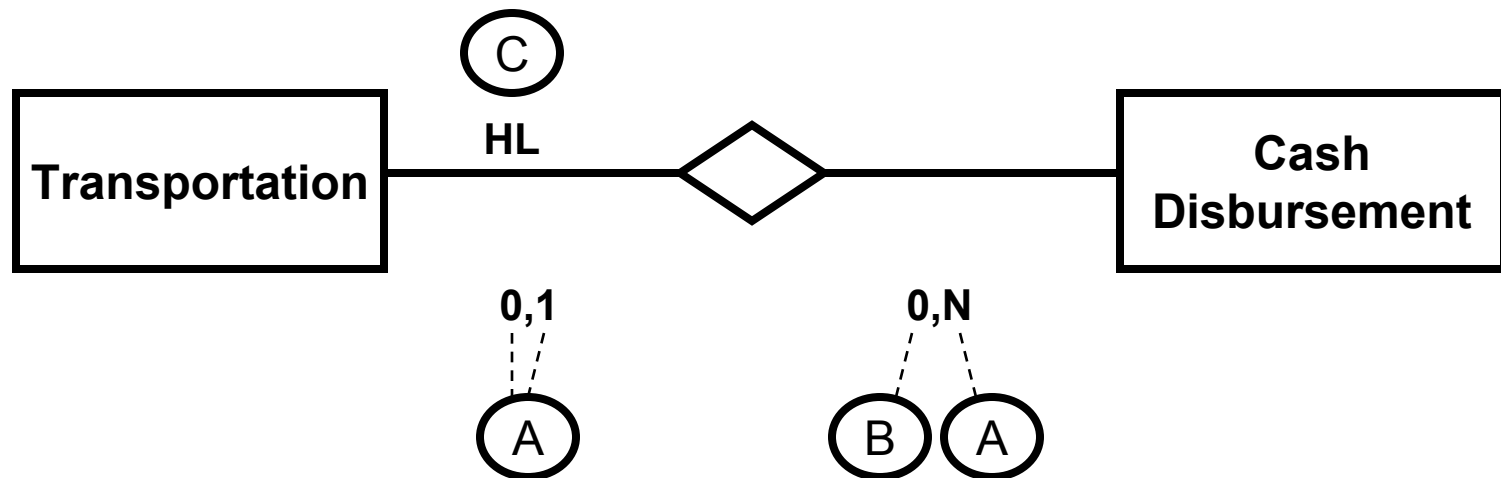
We pay each of the carriers at the end of the month for all transportation services they have provided during the month. We send them a (one) check at the end of the month.

(B)

Not all cash disbursements (payments) are for transportation services.

(C)

More than 95% of the transportation events have been paid.



(A)

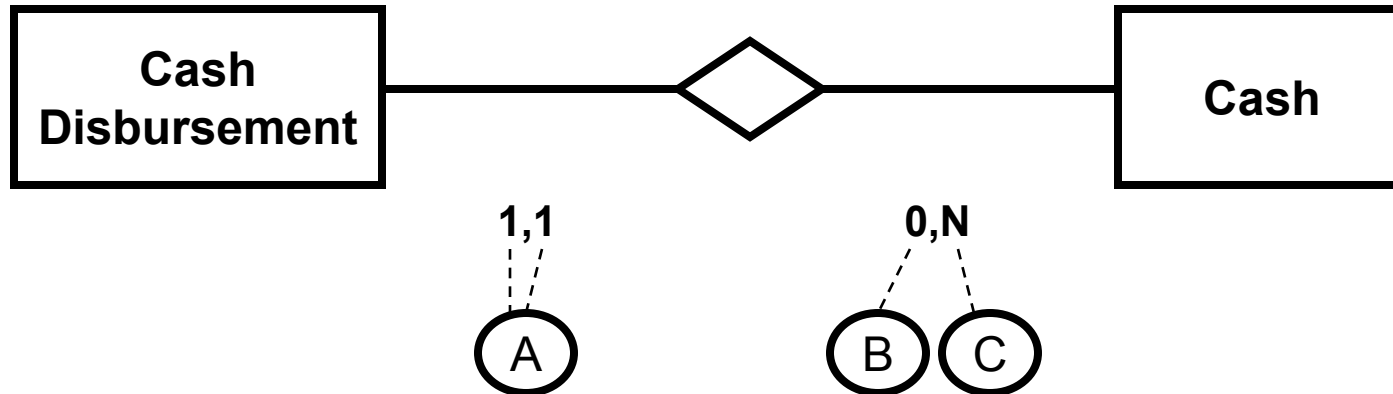
There is exactly one account for each cash disbursement.

(B)

We created a new account yesterday but did not deposit any money in it yet.

(C)

We currently use one account for all our payments (cash disbursements).



(A)

There is exactly one carrier for each cash disbursement.

(B)

We ask all carriers to provide us with a list of their truck IDs (and that information needs to be recorded into the database). A new carrier needs to submit this information (truck IDs) to us at least one week before we schedule a first loading event with that carrier.

(C)

Obviously, we need to record many payments for most of our carriers.

