

## Conceptual Lab 8 – potential planning for Pizza delivery system:

### Questions:

What areas do you deliver in?

What are the cost of delivery? Is it all the same or different?

How many drivers are there?

How many drivers work at a given time?

What kind of vehicles are used? How many?

Do you want this system to manage the ordering of pizzas, or just the delivery? If the former, what items are available for purchase and what are their price? Are there additional toppings?

How many pizzas can be in a single deliver? What is the minimum? Or is it based on cost?

Are there different bases?

Do you sell items other than pizzas such as drinks?

Is there a max number of toppings?

What customer details do you need?

Do you sell vegetarian/gluten free?

Is there only one form of delivery? If yes, I'd create an additional entity for vehicles)

**Entities:** Pizza, toppings, area, customer, order, driver(?)

### Attributes

Pizza/item: name(pk), price, description, base type, additional toppings(can be null), food category)

(fields base type and additional toppings can be removed for non pizza food types such as drinks, sides, deserts)

Toppings attributes: name(pk), description, food type(vegetarian, gluten free), OrderID(FK)

Order attributes: Order ID(PK), CustomerID, ItemID's

Customer: CustomerID(pk), OrderID(FK), AreaID (FK), Phone numberEmail

Area: AreaID, Area name, address, delivery cost

### Possible Use cases:

Actor = driver usecase = deliver pizza

Actor = customer usecase = order pizza

Actor = customer = cancel/update order

Actor = store = receive funds

Actor = store & driver usecase = contact customer

### **Cardinality & Relationships**

Rough diagram of possible cardinality. I struggle to conceptualize how to draw these, so have added sentences to help

Staff

A customer can make one or many orders.  
An order belongs to only one customer.  
1..\*

DATE

Customer 1..\*

An area can have multiple customers.  
A customer can belong to only one area.

Area 1..1

Order  
Order ID PK (unique)  
1..1

An order can have one or many pizzas.  
A pizza can belong to only one order.

1..x  
Pizza

1..1

Additional toppings

0..\*?

A pizza can have 0 or many (finite) toppings.  
A topping can belong to only one pizza.

Type