MAMMA MIA PIZZA

ERD (Entity Relationship Diagramm)

Customer
- Name
- Adress
- Birthdate
- CostumerID
- PizzaCount

Birthday → free Drink → free Pizza

Pizzacount = 10 → 10% discount

selects

DeliveryPerson
- StaffID
- Postcode
- Available

part of

Staff
- StaffID
- Earning
- Name
- Gender

delivered by

Order
- Order ID
- status
- Timestamp

applied to

contains

OrderItem
- Amount

lists

Desserts
- Productname
- Price

Drink
- Productname
- Price

Pizza
- Productname

lists

consists of

Ingredient
- Price
- Vegan
- Vegetarian
- Ingredient-Name

DiscountCode
- validiti
- code

Pizza pricing
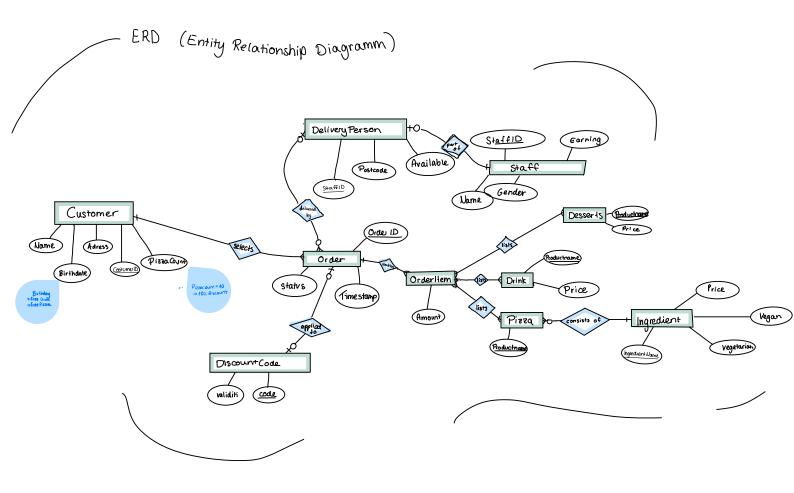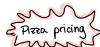
Pizza object in the programming layer will calculate the pizza price based on the used ingredients then 40% margin is added an 9% vat

→ calculation

SP - selling price

I_n Ingredient price

$$Sp = I_n + 0.4 Sp$$

$$Sp - I_n = 0.4 Sp$$

$$I_n = 0.4 Sp - Sp = (0.4 - 1) Sp$$

$$\frac{I_n}{0.6} = Sp$$

Now 9% Vat is added:

Tp: Total price

$$Tp = Sp + 0.09 Sp$$

$$Tp = Sp (1 + 0.09)$$

$$Tp = \frac{I_n}{0.6} \cdot 1.09 = \boxed{\frac{1.09}{0.6} \cdot I_n}$$