

Business Rules:

- 40% MARGIN and 9% VAT, so cost is, $\text{price} = \sum \text{ingredient_cost} \times 1.4 \times 1.09$
- $\text{Ingredient_cost} > 0$
- Vegetarian and vegan pizza's must be true only if all the ingredients are vegetarian or vegan, check and reject violations or block in logic
- Each pizza-ingredient must appear just once, use UNIQUE on pizza_id and ingredient_id
- Order belongs to just one costumer, costumer_id mandatory (FK not null)
- An order has the minimum requirement of at least one pizza item
- Customer.birth_date must be a date < CURRENT DATE
- Customer.email has to be UNIQUE
- Order.status must be one of the allowed order statuses and not anything else
- Discount code must be UNIQUE and can be used at most once
- Discount codes have valid_from, valid_to and the code is valid just between the interval
- Loyalty discount: a client gets a 10% discount after purchasing 10 pizzas in 10 different orders
- On the costumer birthday add 1 free cheapest pizza and 1 free drink
- Only one discount must be applied per order
- Each order assigned to a delivery person covering postal code at the time of the assignment
- Delivery coverage is a many to many between delivery employees and postal codes
- After the delivery is completed the delivery person is not available for 30 mins
- If no delivery person is available for specific postal code, since only available drivers can be assigned, leave order unassigned
- Delivered order status that doesn't allow more changes to the order
- Placing an order makes a order header, all items, discount (if applicable), and driver assignment automatically (optional)
- If any step fails the whole transaction is rolled back to prevent any partial order
- childRows (orderPizza, orderDrink, orderDessert) must be referenced via fk and cascades are defined for deleting when needed
- use CHECK and UNIQUE constrains to prevent negative numbers or duplicated codes
- earnings by age group derived from birth_date
- top 3 pizzas sold last month computed with order item
- undelivered orders are derived by status and order_date
- earning grouped by postal code
-

