Entity-Relationship Diagram Pizzeria

Objectives

- Identify the entities, interrelationships and correct cardinalities of them in a specific scenario.
- Draw the ERD of a specific scenario using the notation explained in class.

Introduction

Draw the ERD of a pizzeria that it wants to computerize its processes, which are currently still in paper format following the next requirements:

Requirements

RQ1	The pizzeria chain has a pizza menu where each pizza contains various ingredients.

RQ2	Each pizza ingredient can be replaced by other ingredients, in case of non-existence.

RQ3	The pizzeria chain has branches. There are two types of branches: • Restaurant-type, where customers can taste pizzas on site, • "Takeaway" type. The same place can be, at the same time, a restaurant and accept takeaway orders.

RQ4	It is necessary to record the lines that compose each order. An example is shown following:

<table>
<tr><th colspan="2">ORDER 278</th></tr>
<tr><td>2 Margarita pizza margarita
1 American pizza
3 Soft drinks</td><td>10€/unit
12€/unit
3€/unit</td></tr>
<tr><td colspan="2" align="right">TOTAL: 41 €</td></tr>
</table>

RQ5	Each premises has several employees assigned to it, which can be: cooks, waiters, telephone operators or motorcyclists. An employee may change roles at any moment. For example, a waiter may be an operator at any moment.

RQ6	It is necessary to register in the database system, which employee serves each order, in a pizzeria, in order to be able to obtain the employee of the month (the one who has invoiced more).

RQ7	Each motorcyclist employee has a motorcycle associated with it, but a motorcycle is shared by several motorcyclists from various shifts.

RQ8	Each premises has to control the stock of each ingredient that is at a given time, as well as the minimum acceptable stock. The system gives the notice of purchase if this minimum is passed.

RQ9	There are several tables in the restaurant premises. For each table, the number of seats must be recorded in our database.

RQ10	Reservations are allowed at restaurant-type premises. The reservation information needed is a name, phone number, number of people and date and time of the booking, as well as the table assigned to them, at the time of booking.