

Carnegie Mellon University in Qatar

15415 - Spring 2018

Recitation 1

1 Requirement Analysis & Database Conceptual Design

Yellow Cap is expanding its business by opening new branches and would like to start tracking its sales. The manager suggests building a database that records all the Pizza orders in a week. They invite a database designer to produce the conceptual design of a simple database. Construct the Entity Relationship Diagram given the description of *Yellow Cap*'s requirements.

Yellow cap serves several types of great Pizzas like: Chicken Margarita, Chicken Ranch, Pepperoni & Cheese, etc. . . . Moreover, every Pizza has a price, and is made of a number of ingredients. *Yellow Cap* takes Pizza orders from customers either in person or over the phone. When a shop assistant takes an order (whether in person or on the phone), he/she asks the customer for his/her phone number. If a customer is ordering for the first time, a new record is added to the database. The assistant then takes the quantity of Pizzas required and computes the total price.

In case the order was by phone, the shop assistant needs to record additional information. The shop assistant asks the customer for his/her name and address. A customer may have several addresses over the course of time but a particular order can be delivered to any one address. Finally, every 30 minutes, *Yellow Cap* groups orders by area and sends out its drivers to deliver their pizzas!