

Database Design for Online Retail Store

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Abhimanyu Bhatnagar, 2020273

Atyant Sony, 2020039

Ritika Nagar, 2020112

Madhava Krishna, 2020217

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Chapter 1

Defining the Problem

1.1 Objective

The goal is to design a database management system for an online retail store, similar to Big Bazaar, Flipkart and Amazon. Our project models on Grofers (now BlinkIt), a fast grocery marketplace for consumers to purchase day-to-day goods from.

1.2 Problem Statement

The ER diagrams and the relational schema that follow are based on the following (rudimentary) problem statement:

The online retail store serves many customers. The customers are required to hold an account on the platform to be able to purchase items. They can create an account by specifying their name, email address, phone number, and address. Customers add products to a shopping cart. They apply coupons on the shopping cart; the coupons have a coupon code and an associated discount percentage.

Customers order items by checking out the items on their shopping cart. The order is placed once the transaction is confirmed.

A product can belong to various categories and has specifications and a cost. Each product is obtained from a vendor which the store transacts with. After being purchased from the vendor, the products are stored in a warehouse. Warehouse employees are responsible for packing and preparing orders. The readied order is then delivered to the customer by a delivery agent.

In case of any lapses with an order, the customer complains to support staff who

create a complaint number against the order. They send out the details regarding the complaint to the customer.

Chapter 2

ER Diagram