

1 Requirements Specification

Groupname

IceCreamEmpire

Introduction

The system is designed for the company IceCreamEmpire. The company wants to plan and track the daily tours to sell ice cream. It has to assign vehicles and vendors to a tour through a neighborhood. It also wants to provide some information about the ice cream, where it is stored and what the sales numbers are. The system consists of the following entities, attributes and relationships.

Tour

Each tour has a start- and endtime, a date and a unique ID. It is a one time event and not a recurring event. Each tour is individually planned.

There is exactly one of each of the following assigned to a tour: ice cream vendor, vehicle, neighborhood.

Ice cream vendor

An ice cream vendor has a forename, a lastname, a salary and a unique ID.

Vendors can sell ice cream on different tours.

Neighborhood

A neighborhood has a unique ID. It has a name, a distance to the headquarter and an area covered (square km). A neighborhood can be served ice on multiple tours

Vehicle

Each Vehicle is identified by its unique ID. It has a vehicle type and storage capacity. One vehicle may be used for many tours. It may store different ice cream flavours with specific amounts.

Flavor

Each ice cream flavor is saved with its name and a unique ID. Each flavor has a base price per scoop.

Content

Each flavor has a unique content consisting of amount of calories and the basis (e.g. milk, water, hazelnut milk) from which the attribute if the flavor is vegan can be derived. The content can be identified by corresponding flavor ID and its own ID.

Order

If someone orders ice cream on a tour, an order linked to that tour is created. An order is identified by an ID and has a time and payment type.

Order detail

Each order consists of multiple order details. The order details can be differentiated by their ID and the corresponding order ID. A detail includes the amount and price of an ordered flavor. A vendor has the option to give a discount on one of the ordered flavors e.g. for a kid that has it's birthday on that day. This means that the price for the same flavor in an order can vary.

Warehouse

There are multiple warehouses. Each warehouse has an address and a capacity. It is identified by a unique ID.

Each warehouse may store multiple flavors. Individual flavors may be stored in multiple warehouses. The amount of each stored flavor per warehouse is also saved in the system.