Josh's Landscaping

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Store

Service

Every order has one sales Assistant and sales assistants handle many orders

Customer can either shop at the store or order a service

Every invoice can have multiple services, and services can be carried out on many invoices

This table refers to one item in a single order

Sales Assistant

Sales Assistant ID	GENERATED AS IDENTITY PRIMARY KEY	NUMBER(6,0)
First Name	NOT NULL	VARCHAR(15)
Last Name	NOT NULL	VARCHAR(15)

Order/Item

Order ID	FK, NOT NULL, REFERENCES Order(Order ID)	NUMBER(6,0)
Item ID	FK, NOT NULL, REFERENCES Item(Item ID)	NUMBER(6,0)
Amt. Ordered	NOT NULL	NUMBER(2,0)
Quoted price	NOT NULL	NUMBER(4,2)

Orders

Order ID	GENERATED AS IDENTITY PRIMARY KEY	NUMBER(6,0)
Order date	NOT NULL	DATE DEFAULT SYSDATE
Customer ID	FK, NOT NULL, REFERENCES Customer (Customer ID)	NUMBER(6,0)
Sales assistant ID	FK, NOT NULL, REFERENCES Sales Assistant (Sales Assistant ID)	NUMBER(6,0)

An order has many Items and a particular item can be purchased many times

Customer

Customer ID	GENERATED AS IDENTITY PRIMARY KEY	NUMBER(6, 0)
Firstname	NOT NULL	VARCHAR(10)
Lastname	NOT NULL	VARCHAR(15)
Street	Field	VARCHAR(30)
Postal Code	Field	CHAR(6)
Phone number	NOT NULL	CHAR(10)
City	Field	VARCHAR(20)
Province	CHECK('ON', ...)	CHAR(2)
Email	Field	VARCHAR(35)
Zip	Field	CHAR(5)

Invoice

Invoice ID	GENERATED AS IDENTITY PRIMARY KEY	NUMBER(6,0)
Customer ID	FK, NOT NULL, REFERENCES Customer(Customer ID)	NUMBER(6,0)
Team ID	FK, NOT NULL, RERFERENCES Team_ID(Team)	NUMBER(6, 0)
Invoice Date	NOT NULL	DATE DEFAULT SYSDATE

Service_Invoice

Invoice ID	FK, NOT NULL, REFERENCES Invoice(Invoice ID)	NUMBER(6, 0)
Service Code	FK, NOT NULL, REFERENCES Services(Service Code)	CHAR(2)
Work Duration	NOT NULL	NUMBER(4,2)

Services

Service Code	PK	CHAR(2)
Description	NOT NULL	VARCHAR(20)
Hourly Charge	NOT NULL	NUMBER(4,2)

A service may require more than one piece of equipment (or none at all) and each piece of equipment could be used on many services (or none at all)

Equipment/Service

Serivce Code	FK, NOT NULL, REFERENCES Services(Service Code)	CHAR(2)
Equip ID	FK, NOT NULL, REFERENCES Equipment(Equip ID)	NUMBER(4,0)

A team handles many invoices and a invoice has only one team involved

Team

Team ID	GENERATED AS IDENTITY PRIMARY KEY	NUMBER(6, 0)
Description	NOT NULL	VARCHAR(25)

Equipment

Equip ID	GENERATED AS IDENTITY PRIMARY KEY	NUMBER(4,0)
Description	NOT NULL	VARCHAR(20)
Amount	NOT NULL	NUMBER(3,0)

A team has many employees but an employee is only assigned to one team.

Look-up table for classification information

Classification

Code	PK	CHAR(2)
Description	NOT NULL	VARCHAR(20)
Markup	NOT NULL	NUMBER(4,2)

Markup appears to be the same for all items with the same classification code according to the example given. Thus, it was placed in the classification table.

Item

Item ID	GENERATED AS IDENTITY PRIMARY KEY	NUMBER(3, 0)
description	NOT NULL	VARCHAR(25)
Aisle	NOT NULL, CHECK BETWEEN 1 AND 20	NUMBER(2, 0)
Supplier_ID	FK, NOT NULL, REFERENCES Suppliers(Supplier_ID)	NUMBER(2)
Stock	NOT NULL	NUMBER(2, 0)
Classification Code	NOT NULL, FK, REFERENCES Classification(Code)	CHAR(2)
Cost	NOT NULL	NUMBER(5, 2)

A specific skill may be very long to describe. Thus, putting it in its own table will not allow it to be repeated. Only a code will be repeated

Contains all skills an employee can possibly have

Skill Codes

Code	PK	CHAR(2)
Description	NOT NULL	VARCHAR(20)

Employees

OHIP	Unique, NOT NULL	VARCHAR(9)
Firstname	NOT NULL	VARCHAR(10)
Lastname	NOT NULL	VARCHAR(15)
Team ID	FK, NOT NULL,REFERENCES Team(Team ID)	NUMBER(2)
Position Code	FK, NOT NULL, REFERENCES Positions(Code)	CHAR(2)
Emp ID	GENERATED AS IDENTITY PRIMARY KEY	NUMBER(4)
Phone number	NOT NULL	CHAR(10)
Start date		DATE , DEFAULT SYSDATE

A specific position type may be very long to describe. Thus, putting it in its own table will not allow it to be repeated. Only a code will be repeated

Suppliers

Supplier_ID	PK	NUMBER(2)
Description	NOT NULL	VARCHAR(30)

A specific supplier name may be very long. Thus, putting it in its own table will not allow it to be repeated. Only an ID will be repeated

Skills

EMP ID	FK, NOT NULL, REFERENCES Employees(Emp ID)	NUMBER(4)
Skill code	FK, NOT NULL, REFERENCES Employees(Emp ID)	CHAR(3)

An employee can have many skills and different employees may have the same skill

Positions

Code	PK	CHAR(2)
Description	NOT NULL	VARCHAR(20)