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5. 'Bang for the Buck' Data Models

5.0 Welcome

You are invited to follow developments on our Web Site :-

- <http://www.databaseanswers.org/index.htm>

You can also join our Database Answers Community

- <http://databaseanswers.ning.com/>

5.1 Introduction

5.1.1 What is this ?

This Chapter discusses some examples of small, economical Data Models.

What they all have in common is that they offer a rich functionality with just a limited number of Entities, which is what we mean by 'Bang for the Buck'.

The Data Models in this Chapter are listed on this page on the Database Answers Web Site :-

- http://www.databaseanswers.org/data_models/bang_for_the_buck_models.htm

5.1.2 Why is it important ?

They are important because they demonstrate the power of the underlying principles and concepts of Ted Codd's original Relational Theory.

They illustrate how common situations occur frequently all around us.

For example, situations involving people and events occur every day all over the world.

5.1.3 What will I Learn ?

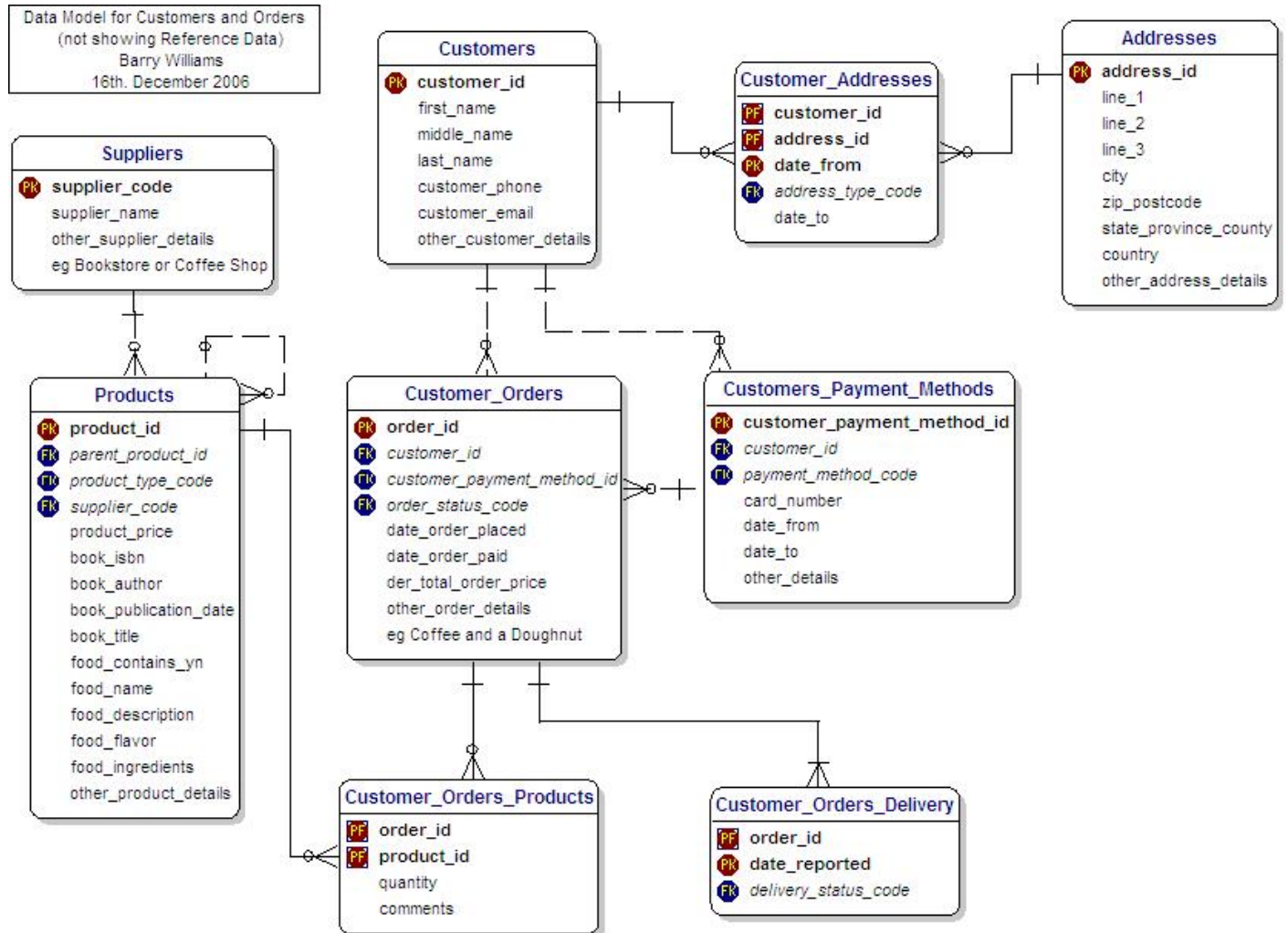
You will learn how to identify and understand Design Patterns.

This will make it very easy for you to interpret complex Models.

5.2 Customers and Orders

This Model appears on this page on the Database Answers Web Site :-

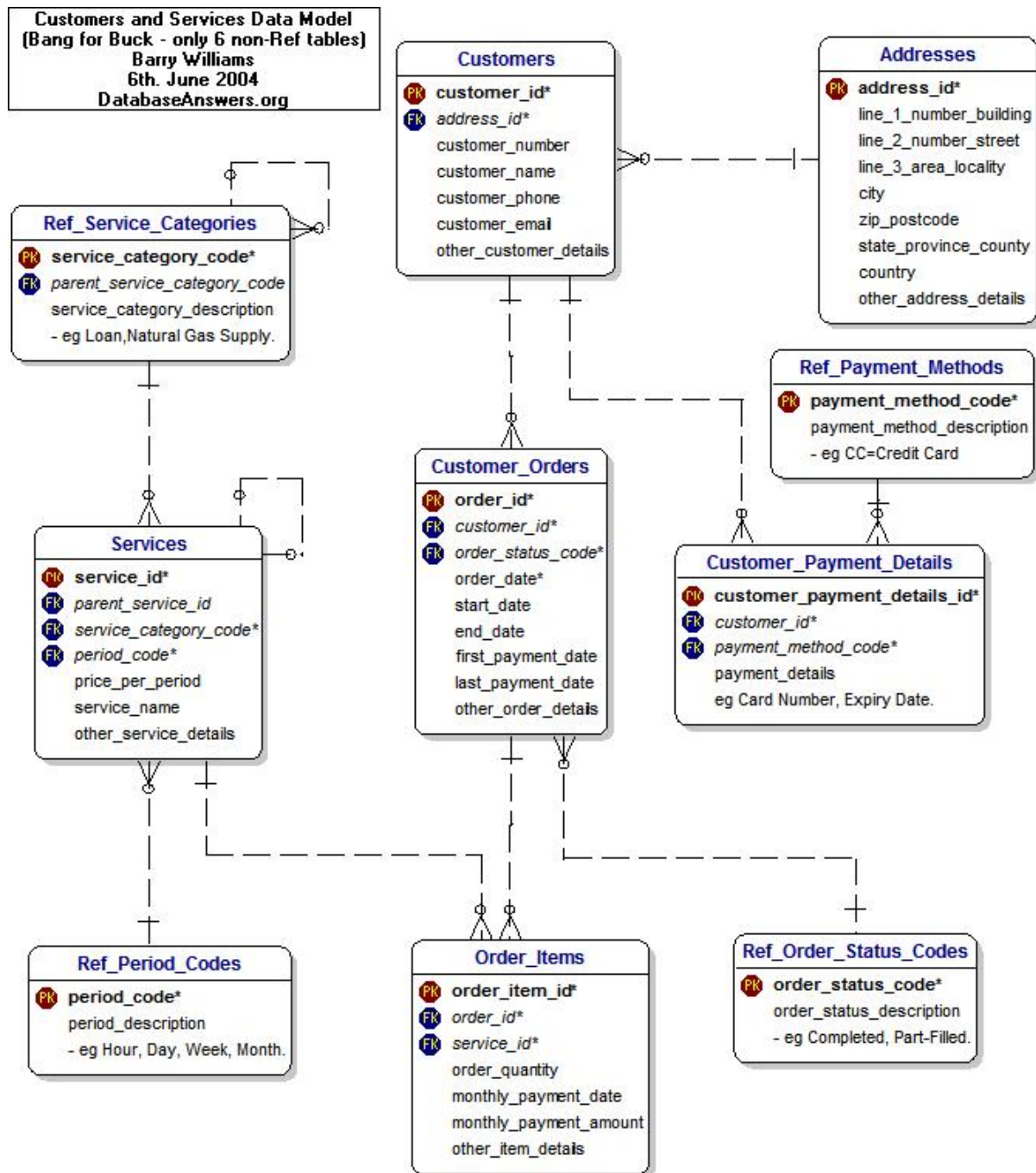
- http://www.databaseanswers.org/data_models/customers_and_orders/index.htm



5.3 Customers and Services

This Model appears on this page on the Database Answers Web Site :-

- http://www.databaseanswers.org/data_models/customers_and_services/index.htm



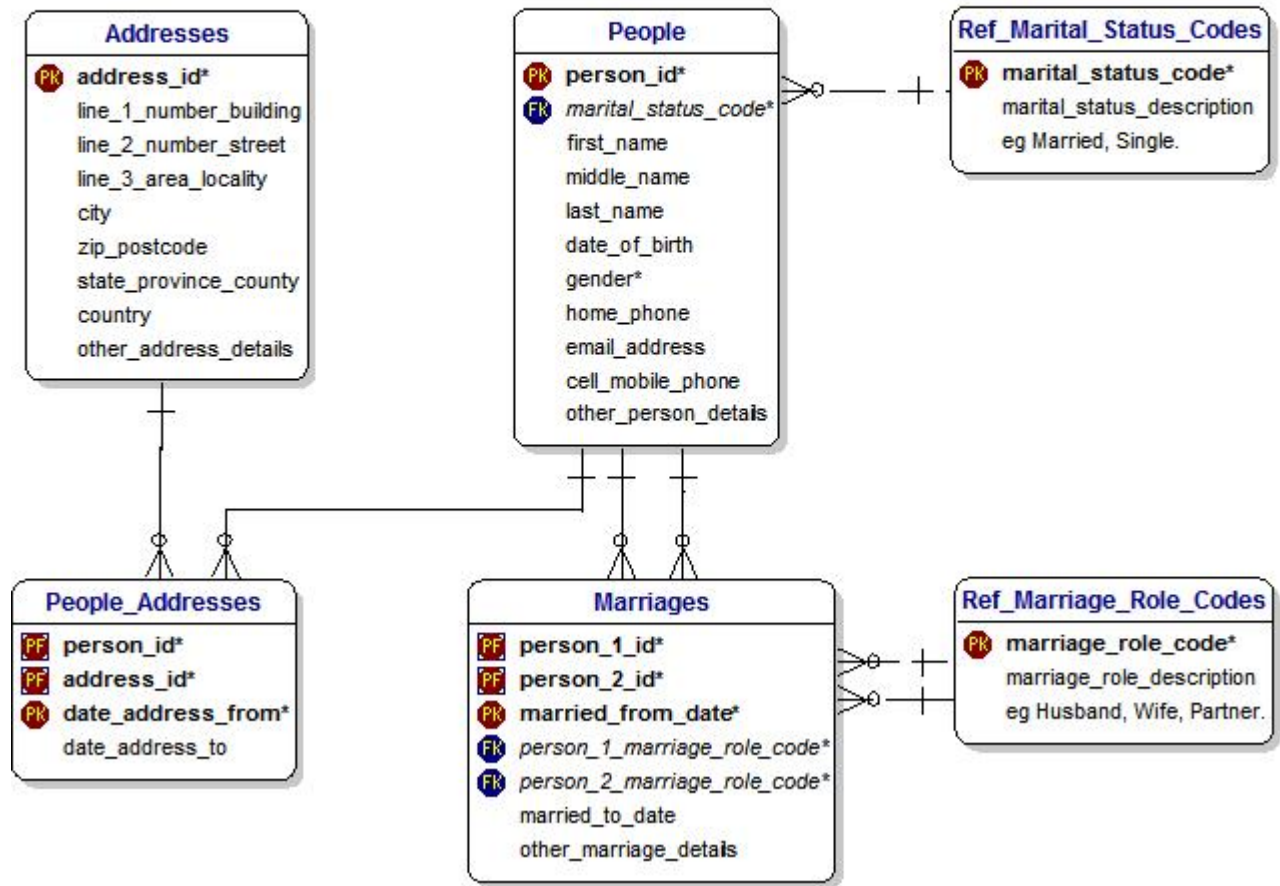
5.4 Marriages (Contemporary)

This Model appears on this page on the Database Answers Web Site :-

- http://www.databaseanswers.org/data_models/marriages_contemporary/index.htm

Data Model for Contemporary Marriages
 Barry Williams
 14th. April 2004
 DatabaseAnswers.org

This Model provides for same-sex Marriages.

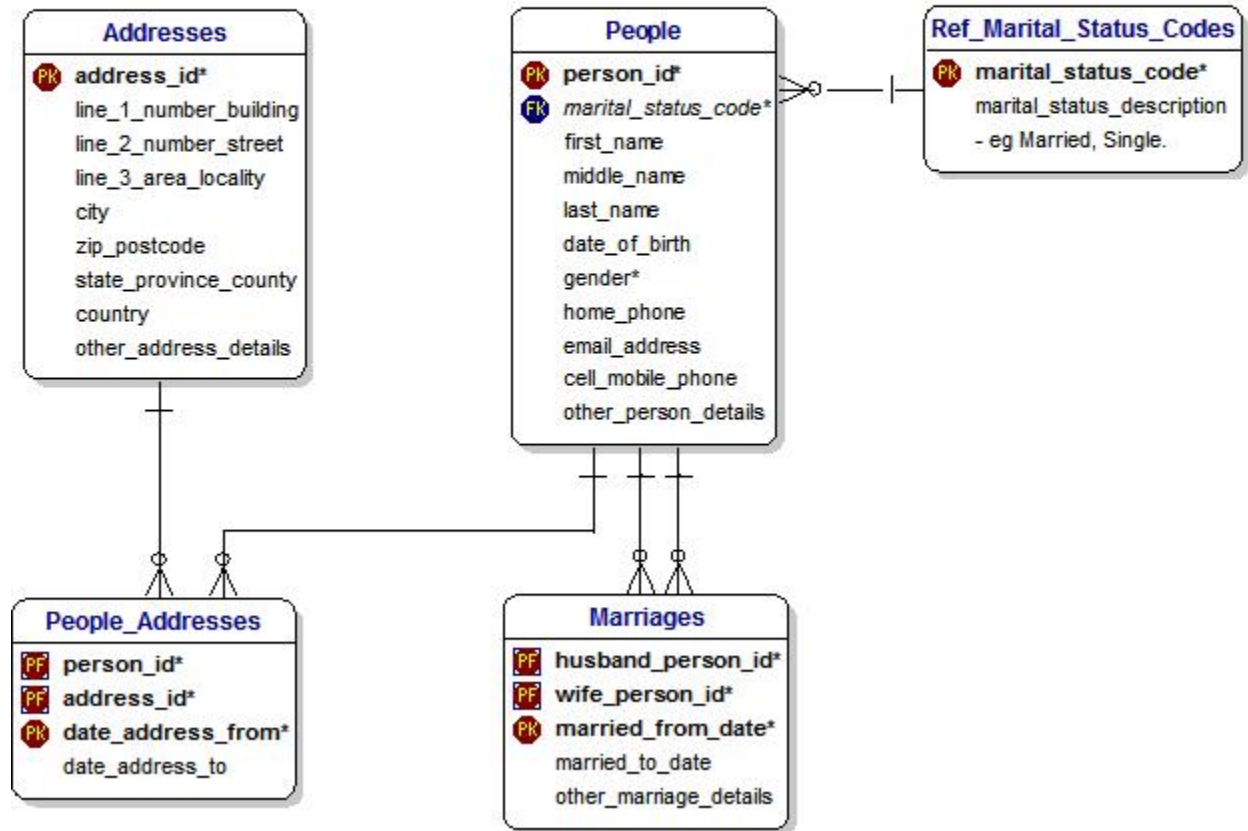


5.5 Marriages (Traditional)

This Model appears on this page on the Database Answers Web Site :-

- http://www.databaseanswers.org/data_models/marriages_traditional/index.htm

Data Model for Traditional Marriages
 Barry Williams
 14th. April 2004
 DatabaseAnswers.org



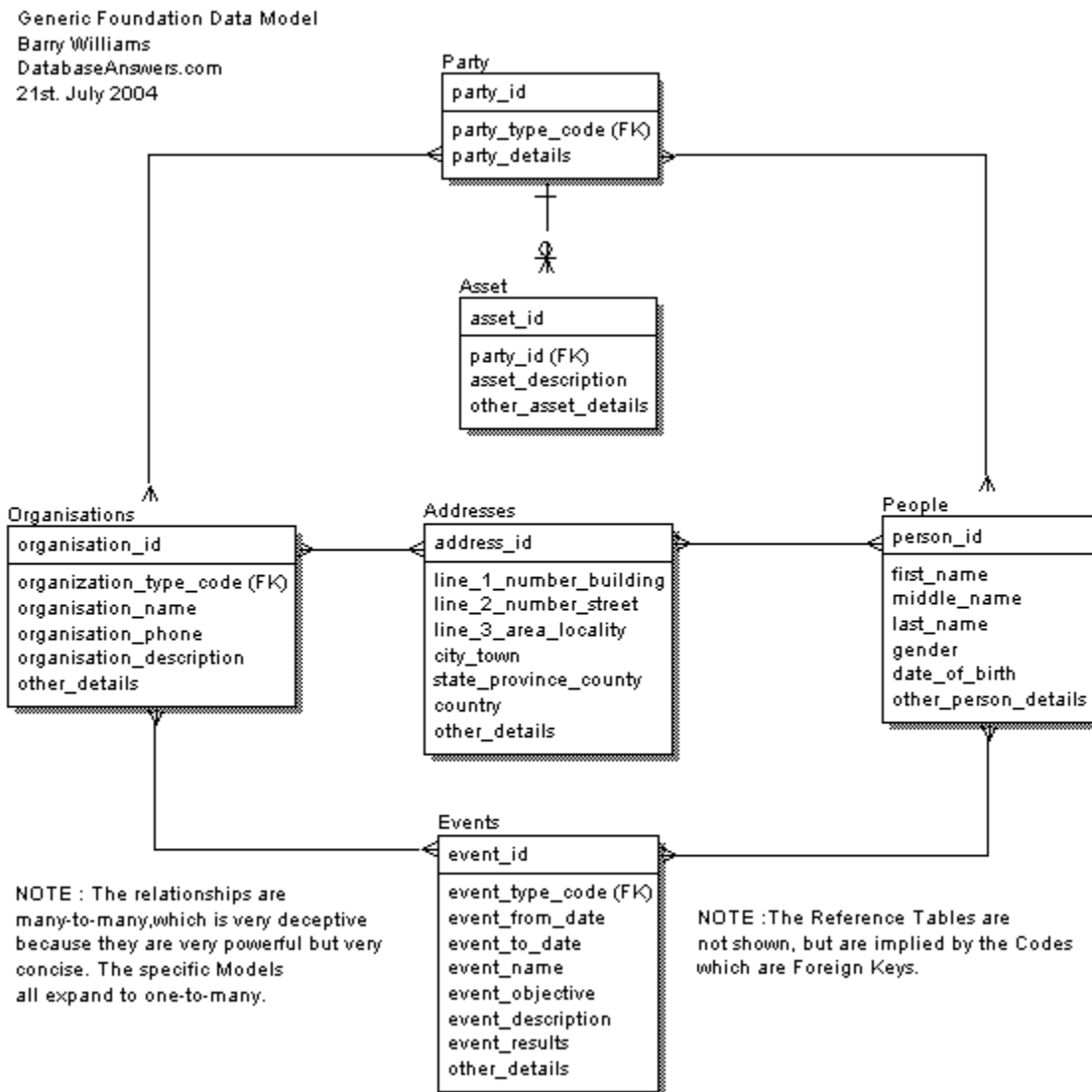
5.6 Organisations, People and Events

This Model appears on this page on the Database Answers Web Site :-

- http://www.databaseanswers.org/data_models/customers_and_orders/index.htm

and a Generic Foundation Model :-

- http://www.databaseanswers.org/data_models/generic_foundation/index.htm



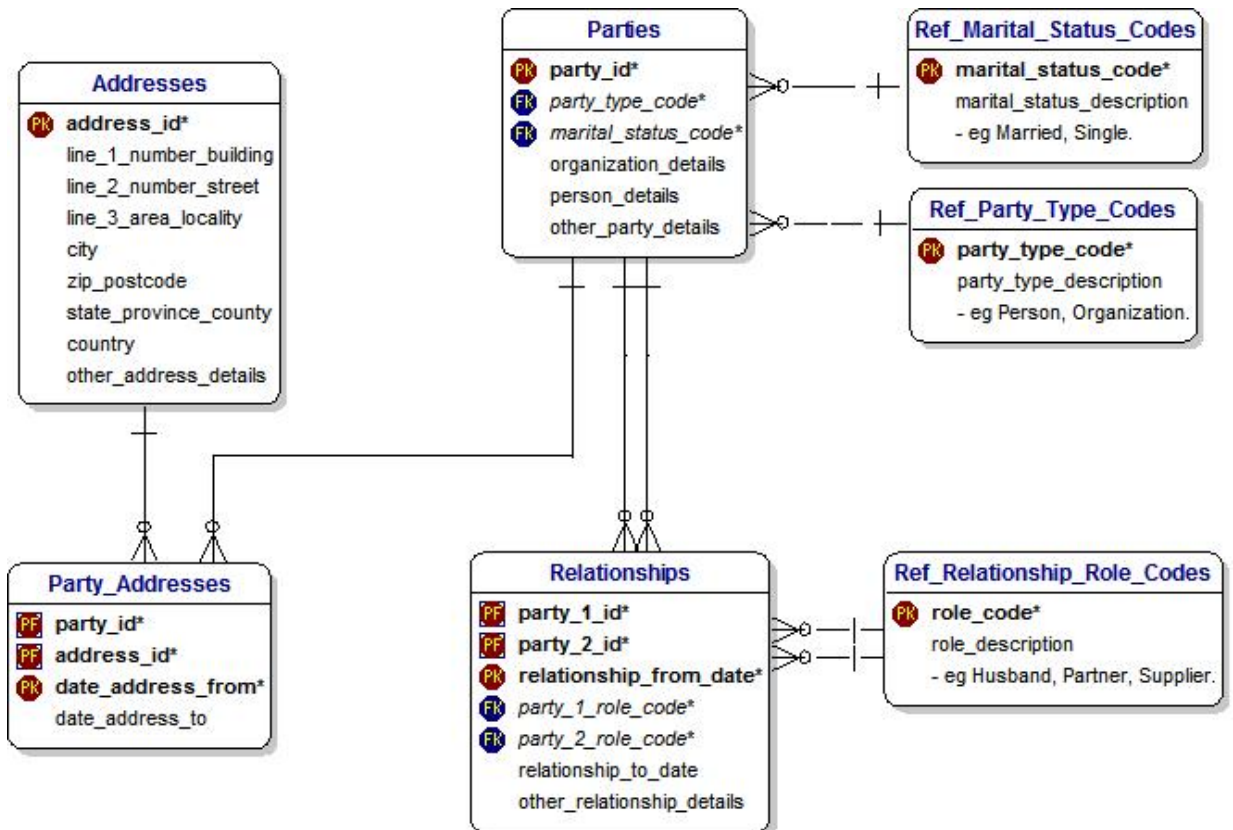
5.7 Partnerships and Relationships

Here is the page on the Database Answers Web Site :-

- http://www.databaseanswers.org/data_models/partnerships_and_relationships/index.htm

The concept of Partnerships and Relationships includes :-

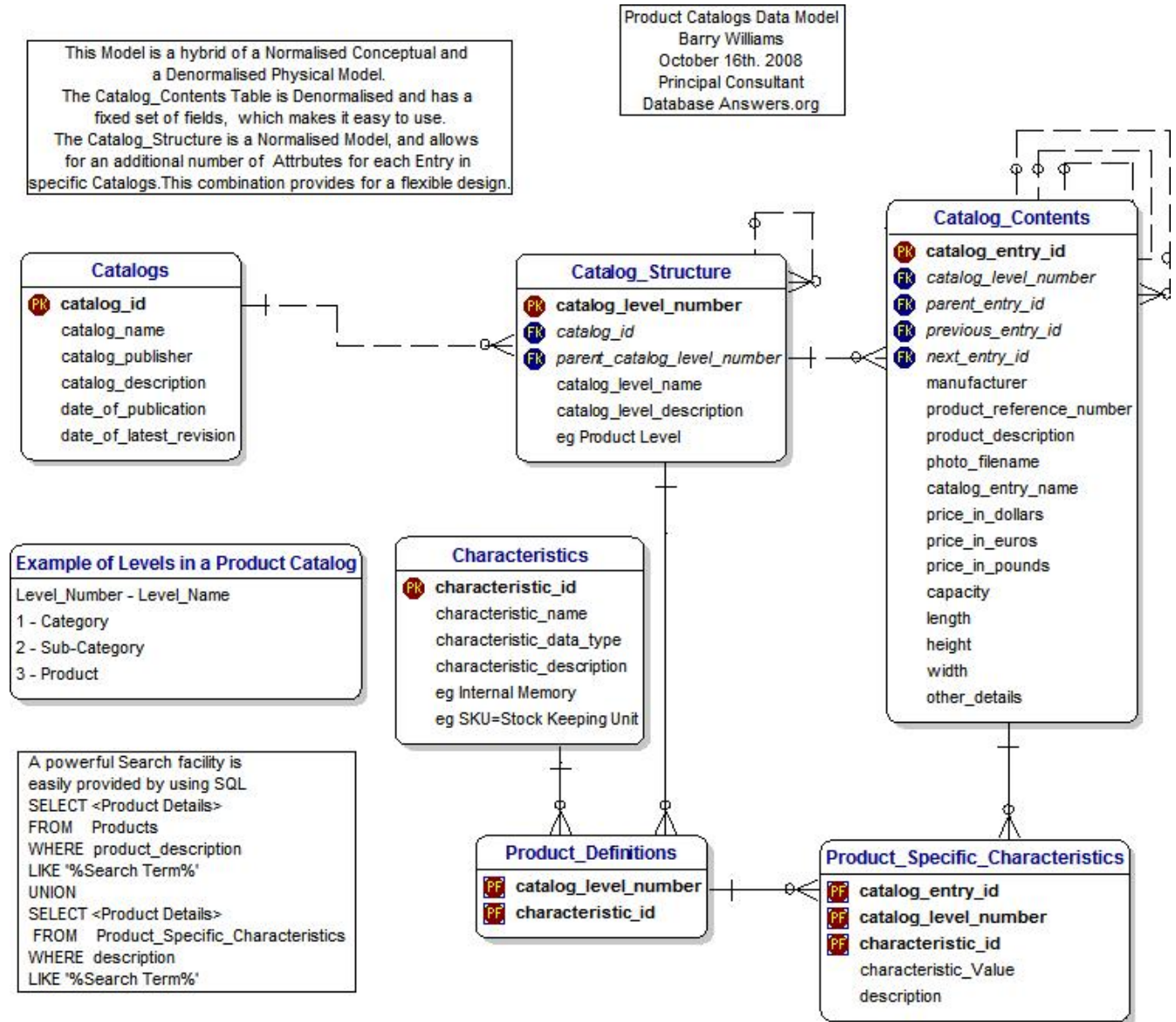
- Civil Partnerships
- Employers and Employees
- Friends and Associates
- Marriages
- Participants in a Law Suit



5.8 Product Catalogues

Here is the page on the Database Answers Web Site :-

- http://www.databaseanswers.org/data_models/product_catalogs/index.htm



Example of Levels in a Product Catalog

Level_Number - Level_Name
 1 - Category
 2 - Sub-Category
 3 - Product

A powerful Search facility is easily provided by using SQL

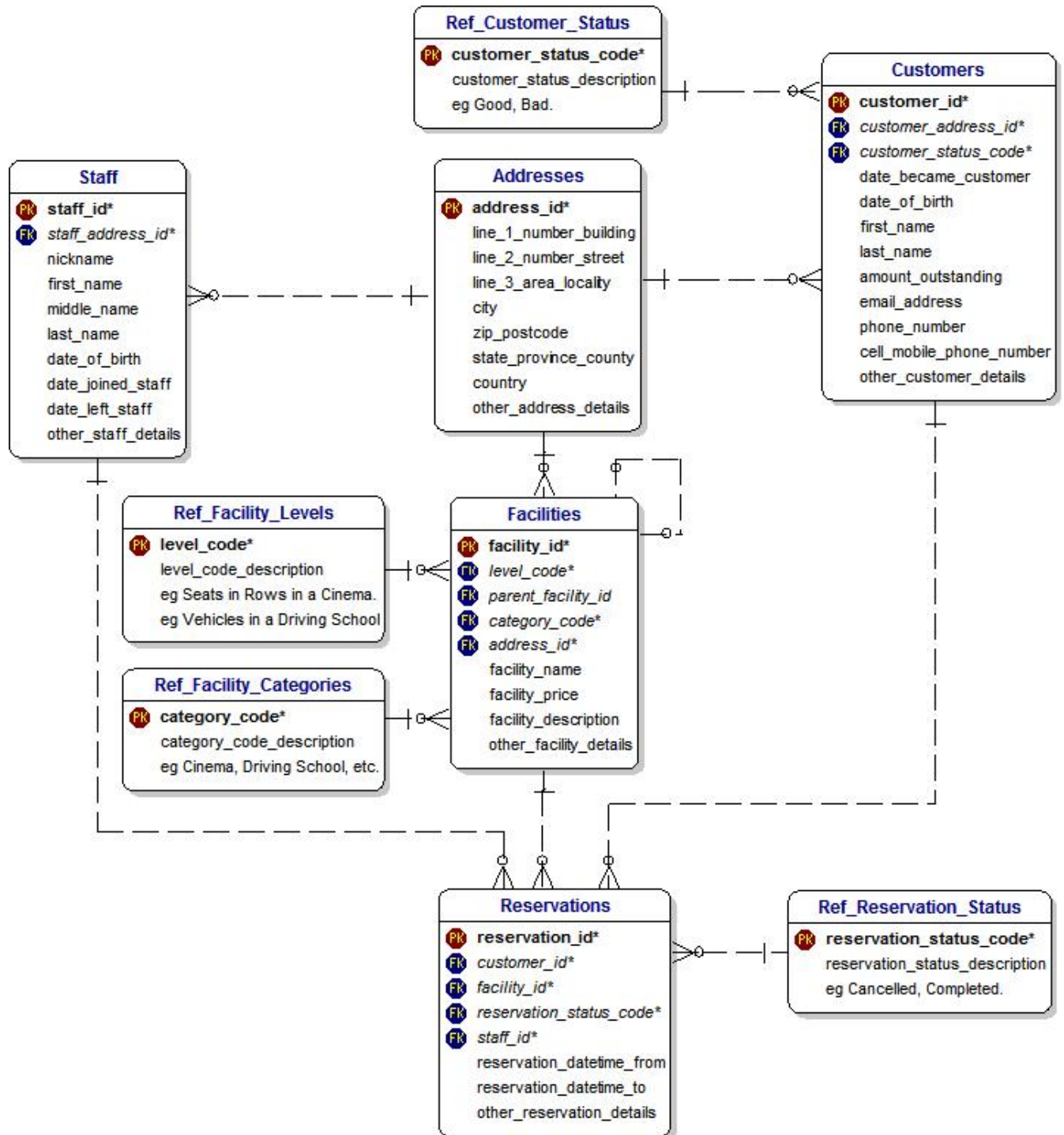
```

        SELECT <Product Details>
        FROM Products
        WHERE product_description
        LIKE '%Search Term%'
        UNION
        SELECT <Product Details>
        FROM Product_Specific_Characteristics
        WHERE description
        LIKE '%Search Term%'
    
```

5.9 Reservations

Here is the page on the Database Answers Web Site :-

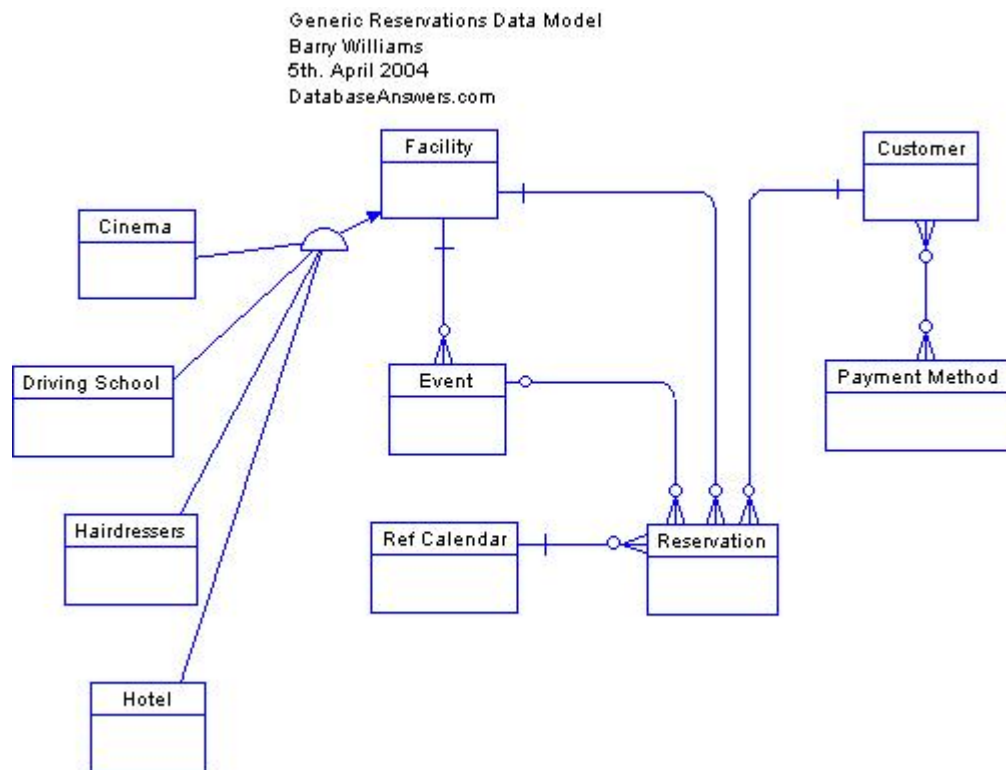
- http://www.databaseanswers.org/data_models/generic_reservations/index.htm



5.10 Reservations with Inheritance

Here is the page on the Database Answers Web Site :-

- http://www.databaseanswers.org/data_models/generic_reservations/generic_reservations_inheritance.htm



5.11 What have we learned ?

In this Chapter we have learned how it is possible to design Data Models that are simple and compact but can at the same time be very powerful in what they represent.

Inheritance and Recursive relationships are two techniques that help us to achieve this.