Data Models are for Everybody

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1. Introduction

2. Subject Areas
   1. Banking
   2. Education
   3. Entertainment
   4. Insurance
   5. Law Enforcement
   6. Medical
   7. Logistics
   8. Retail Sales
   9. Travel
  10. UK Tourist Attractions

Data Models are for Everybody
3. Banking

3.1 Beginning
I have put this as my ‘Beginner’ Model because it is a Conceptual Business Model.

The interesting aspect of this Model is that it can apply to both Retail and Wholesale (or Investment).

The reason is that it is Event-oriented and can therefore be applied to many situations.

I have used my Canonical Data Model as a Design Pattern and you can find it here:

- [http://www.databaseanswers.org/data_models/canonical_data_models/index.htm](http://www.databaseanswers.org/data_models/canonical_data_models/index.htm)

Here is a link to this Banking Model:

- [http://www.databaseanswers.org/data_models/banking_generic_data_model/index.htm](http://www.databaseanswers.org/data_models/banking_generic_data_model/index.htm)

and here is the Model:
3.2 Intermediate
I have put this here because it shows a wide variety of Data Marts which you can use as a starting-point.

3.3 Advanced
Our design Approach combines a Canonical Data Model and a Generic Data Platform with our new and very powerful approach to ‘Agile Enterprise Data Models’.

4. Education

4.1 Beginner
I have put this here because it includes a Conceptual Model, a Logical Model and a Data Mart.
Here is the page :-
- [http://www.databaseanswers.org/data_models/student_registration/index.htm](http://www.databaseanswers.org/data_models/student_registration/index.htm)

Here’s the Conceptual Model :-

```
School
   ^
  /   \
Teachers   Students   Addresses
     |       \   |
     |       Calendar        Classes
     |                    |
     |                    |   Subjects
```
Data Models are for Everybody

and the Logical Model, where you can easily see the difference:
4.2 Intermediate
I like this because it shows Entities without Attributes that makes it easy to read and understand and if you have access to the Data Model with the Data Modelling Tool you will easily be able to see the Attributes.


Model –

![Data Model Diagram](image-url)
4.3 Advanced
This is the Agile Education Model.
it is a great example of Subject Areas, each of which is valuable to study.


Mode –

![Diagram of Agile Education Model](http://www.databaseanswers.org/data_models/agile_education/index.htm)
5. Entertainment

5.1 Beginner

I have put this here because it includes valuable examples of Inheritance.

Here is the page:

- [http://www.databaseanswers.org/data_models/ballet_companies/index.htm](http://www.databaseanswers.org/data_models/ballet_companies/index.htm)

and here is the Model for Ballet Companies:
5.2 Intermediate
I have put this as an Intermediate Model because it contains an example of Inheritance.

5.3 Advanced
I have put this as an Intermediate Model because it is a great example of Subject Areas, each of which is valuable to study.


Model –
6. Insurance

6.1 Beginner – Policies

I like this Model because it shows a very good example of Inheritance for three different types of Policy (Car, Home and Life)

Page - [http://www.databaseanswers.org/data_models/insurance_policies/index.htm](http://www.databaseanswers.org/data_models/insurance_policies/index.htm)

Model -

![Insurance Common Data Model](image-url)
This Model is for the FNOL (First Notification Of Loss) related to an Insurance Policy.

I like the fact that it shows both the Business (Conceptual) and the Logical Model so that you can compare them and here’s the Logical Model :-
6.3 Advanced
Page :-
  •  http://www.databaseanswers.org/data_models/agile_insurance/index.htm
Model –

```
First Notification of Loss (FNOL)  
Insurance and eClaims
Insurance Data Platform
Insurance Brokers

Insurance (General)
Policies
Solvency II
```
7. Law Enforcement

7.1 Beginner
I have put this here because it includes a Conceptual Model and a Logical so that you can compare them and see the differences.

The page also contains very valuable links to other pages, including this one:
- [http://www.databaseanswers.org/data_models/top_ten_data_models_law_enforcement.htm](http://www.databaseanswers.org/data_models/top_ten_data_models_law_enforcement.htm)
I was also amused by the idea of creating a Model for Bank Robberies, although when I had done it, it looked like a Design Pattern based on my Canonical Data Model, which you can find here:
- [http://www.databaseanswers.org/data_models/canonical_data_models/index.htm](http://www.databaseanswers.org/data_models/canonical_data_models/index.htm)

Model s :-

```
Bank
  ↓
Bad Guys  Bank Robbery  Customers
  ↓  ↓
Police  Arrests  Witnesses
  ↓
Prison Sentences
```

Here’s the Logical Model (showing equivalent functionality) –

```
Bank
  ↓
Bad_Guys  Bank_Robbery
  ↓  ↓
Police  Arrests
  ↓
Prison Sentences
```
7.2 Intermediate
I have put this as an Intermediate Model because it is a great example of Subject Areas, each of which is valuable to study.


Model –
7.3 Advanced
This is the Agile Law Enforcement Model.
Model -
8. Medical

8.1 Beginner

Out of the available Models, I chose this one because it shows an elegant solution to a common problem, and has a link to a Data mart, which is useful because it is an example of a generic design.

8.2 Intermediate
I chose this one because it is a general design for Health Insurance Claims, which is a common requirement.

Page - http://www.databaseanswers.org/data_models/health_insurance_claims/data_mart.htm

Model -
Data Models are for Everybody

8.3 Advanced
This is another of my Agile Model which are very useful for starting at the Enterprise level and establishing Subject Area Models and then working downwards.


9. Logistics

9.1 Beginner
I have put this as a ‘Beginner’ Model because it shows only Entity names without Attributes, and is therefore easy to understand.

Also it is compatible with the ARTS Model – ARTS is the (American-based) Retail Industry Trade Association.

9.2 Intermediate

I called this an Enterprise Data Model and it comes with a Dimension Data Mart which is also useful.

9.3 Advanced

This is another of my Agile Model which are very useful for starting at the Enterprise level and establishing Subject Area Models and then working downwards.

Page - [http://www.databaseanswers.org/data_models/agile_logistics/index.htm](http://www.databaseanswers.org/data_models/agile_logistics/index.htm)
10. Retail Sales

10.1 Beginner

I have put this as a ‘Beginner’ Model because it shows only Entity names without Attributes, and is therefore easy to understand.

Also it is compatible with the ARTS Model – ARTS is the (American-based) Retail Industry Trade Association.

10.2 Intermediate
We have chosen a Generic Retail Model because it is a comprehensive Model that will repay study.
This link will take you to a page which lists half-a-dozen Subject Area Models, Erwin Models, Data Marts and Data Warehouses, which will also repay study.
Model –
10.3 Advanced

Our design approach combines a canonical data model and a generic data platform with our new and very powerful approach to ‘Agile Enterprise Data Models’

Model -
11. Travel Reservations

11.1 Beginner – Travel Reservations
I have put this as a ‘Beginner’ Model because it is therefore easy to understand, and has a link to a Data Mart, which can be very useful.


Model

11.2 Intermediate – Internet of Things and Airport
I have put this in because it is easy to understand, and has a link to a Data Mart, which can be very useful.

11.3 Advanced – Airport Management
I like this because it shows a unique approach to using a Model and generating a KPI Alert when a Flight is delayed in landing.
Page -http://www.databaseanswers.org/data_models/airport_in_a_box/airport_in_a_box_POC_end2end.htm

The Model shows that the Data Warehouse populates the Data Marts and finally the BI Layer and KPIs (Key Performance Indicators) are produced.
12.UK Tourist Attractions

12.1 Beginners Intermediate – BBC
I like this Conceptual Data Model because it easy to understand, and has a link to our Reference Data Architecture.

Conceptual Model –

```
Staff

<table>
<thead>
<tr>
<th>Channels</th>
<th>Schedules</th>
<th>Programs</th>
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Logical Model–

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12.2 Intermediate – UK British Airports Authority
I like this Conceptual Data Model because it easy to understand, and has a link to our Reference Data Architecture.

12.3 Advanced – Agile UK
This is our Agile Enterprise Data Models for UK-related Models on my Web Site.
Model -

13. Conclusion
I hope you have enjoyed our tour through key Data Models from my Database Answers Web Site.
If you have any comments or questions please email me at info@barryw.org.
Regards
Barry in London