**Data Model Hotel Booking Room (ER)**

|  |
| --- |
| **Customers**  1 |
| **C\_Id (int)**  C\_Title (txt)  C\_Name (txt)  C\_Surname (txt)  C\_DateofBirthday(date)  C\_Address (txt)  C\_Town (txt)  C\_Country (txt)  C\_PostalCode (txt)  C\_HomePhone (txt)  C\_MobilePhone (txt)  C\_Email (txt) |

|  |
| --- |
| **Guests** |
| **G\_Id (int)**  G\_Title (txt)  G\_Name (txt)  G\_Surname (txt)  G\_DateofBirthday(date)  G\_Address (txt)  G\_Town (txt)  G\_Country (txt)  G\_PostalCode (txt)  G\_ContactPhone (txt) |

|  |
| --- |
| **Bookings**  1 |
| **B\_Id (int)**  C\_Id (int)  H\_Id (int)  B\_DateMade (date)  B\_TimeMade (time)  B\_StartDate(date)  B\_EndDate (date)  Tot\_Pay\_Due\_Date (date)  Tot\_Pay\_Due\_Amount (val)  Tot\_Pay\_Made\_On (date)  B\_Notes\_Comments (txt) |

1

1

1

**∞**

**∞**

|  |
| --- |
| **RoomTypes** |
| **R\_Type\_Id (int)**  R\_Type (txt) |

|  |
| --- |
| **Rooms** |
| **R\_Id (int)**  H\_Id (int)  **∞**  R\_Type\_Id (int)  **∞**  R\_Band\_Id (int)  **∞**  R\_Price\_Id (int)  R\_Floor (int)  R\_AdditionalNotes (txt) |

|  |
| --- |
| **LinkBookingsRooms**  **∞** |
| **B\_Id (int)**  **R\_Id (int)**  **∞**  **G\_Id (int)** |

**∞**

|  |
| --- |
| **RoomBands** |
| **R\_Band\_Id (int)**  R\_Band\_Description (txt) |

1

|  |
| --- |
| **Payments**  **∞** |
| **P\_Id (int)**  B\_Id (int)  C\_Id (int)  P\_Method\_Id (int)  P\_Amount (val)  P\_Comments (txt) |

1

1

|  |
| --- |
| **RoomPrices** |
| **R\_Price\_Id (int)**  R\_Price (val) |

**∞**

**∞**

**∞**

|  |
| --- |
| **LinkRoomsFacilities** |
| **R\_Id (int)**  **∞**  **F\_Id (int)**  F\_Details (txt) |

1

|  |
| --- |
| **PaymentMethods** |
| **P\_Method\_Id (int)**  P\_Method (txt) |

**∞**

|  |
| --- |
| **FacilitiesList** |
| **F\_Id (int)**  F\_Description (txt) |

1

1

|  |
| --- |
| **Hotels** |
| **H\_Id (int)**  H\_Name (txt)  H\_Star\_Level (int)  H\_Number\_Rooms (int)  H\_Address (txt)  H\_Town (txt)  H\_Country (txt)  H\_PostalCode (txt)  H\_Phone (txt)  H\_Email (txt)  H\_Services (txt) |

1

**Legend:**

C=Costumers

B=Bookings

G=Guests

H=Hotels

P=Payments

R=Rooms

B=Bands

F=Facilities

I choose the SQL solution for implements a minimum data Model for Hotel Booking. This solution is shown above by ER(Entity-Relationship) diagram.

In this diagram the Entities required should include:

* Hotels
* Customers
* Guests
* Rooms
* Bookings
* Payments
* Room Types
* Price Room Bands
* Room Facilities

There are many Hotels and each is composed of a number of rooms divided by types, price and facilities that they offer to their customers. Each hotel has its customers (those who have made ​​many bookings rooms and the payments of this with one payment method) and provides its customers with services.

There are also, many guests (visit users) that looking for a Hotel into web based on location, services offered, star level and price bands of the rooms.

I preferred use a Framework to implements application controller, actions and view, for a fast implementation, for developing a secure project of site web in a little time and choosing a correct CRUD rules.

The Framework that I choosed is Yii Framework that is a fast, secure and professional PHP Framework. Yii is a [high-performance](http://www.yiiframework.com/performance/) PHP framework best for developing Web 2.0 applications.

This framework is secure because it includes input validation, output filtering, SQL injection and Cross-site scripting prevention and fast because only loads the features that you need. It has powerful caching support. It is explicitly designed to work efficiently with AJAX. Yii framework is professional because helps to develop clean and reusable code. It follows the MVC pattern, ensuring a clear separation of logic and presentation.

This solution permit to have, after the creation of tables into MySQL DB, a comprehensive web site in a short time, with MVC pattern, that performed my goals (Data Model for Hotel Booking, application controllers, actions, CRUD rules, views ).

Yii also allows you to generate automatic code in PHP using Gii modules.

Since Yii Framework requires a connection to a DB and the existence of the tables in this, I have designed before the data model in SQL language, creating the necessary tables to Hotel Booking, and after I run the Gii Module on every tables in the DB.