CI102 Coursework Assignment

**Assignment Title:** Sunshine Coast Hotel

**Students:** BA Business Information Systems, BSc Business Software Development, BSc Software Engineering, BSc Computer Science,

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**Suggested Reading:**

*Database Systems, A Practical Approach to Design, Implementation, and Management* (fifth edition)by Thomas Connolly & Carolyn Begg, Addison Wesley 2010.

**Further research:**

Hotel Una <http://www.hotel-una.co.uk/about-hotel-una.html>

New Steine Hotel <http://www.newsteinehotel.com/?gclid=CO3_nvezyq0CFQUOfAodYjFlgg>

Hotel Executive software <http://www.avondata.co.uk/hotel-management-system.php>

Room master software <http://www.roommaster2000.co.uk/reservation-booking-is-changing-are-you-up-to-speed/?gclid=CN-Dur_l5LwCFeXLtAod2xYANA>

**Sunshine Coast Hotel case study**

The Sunshine Coast Hotel is a small family-run business on the south coast of England. They are doing well but, with constant visitors they find it difficult to keep track of costs and charges. They want to install a database system that will allow them to keep records of their visitors and print invoices in the first instance. They hope it will form the basis of further expansion.

Preliminary investigation of the requirements for the system has elicited the following facts:

* Rooms are numbered from 101 to 359 (although there are only 20 rooms in all, they are over 3 floors)
* Some rooms are accessible for wheelchair users and others are not
* Rooms are of three types:

1. Single – charged at £40 per night
2. Double - charged at £52 per night
3. Suite (suitable for a family of four) – charged at £95 per night

* Customers are charged for a room, at a standard rate, although a record is kept on the number of people in the room
* Customers are given a unique ‘customer ID’ and their information is currently kept in a card index
* Customers can order specific items which can be charged to their room as extras on their bill. These charged at a standard rates as follows:

1. Traditional breakfast – charged at £10
2. Continental breakfast – charged at £5
3. Evening meal - charged at £25 per person
4. Range of bar snacks – charged at £15
5. Room service meal – charged at £30

* Customers can buy other items, such as drinks from the bar, but these are paid for individually and not charged to the customer’s room.

The Sunshine Coast Hotel currently use pre-printed stationery and the reception staff write out invoices for customers when they leave. Below is an example of the invoices they use.

**Appendix A: Marking criteria**

|  |  |
| --- | --- |
|  | Marks available |
| All of the entities are identified and have well-written descriptions | 10 |
| All of the relationships are identified and have good names and correct multiplicities | 10 |
| All of the relevant attributes are identified with appropriate data types | 10 |
| Excellent ER diagram in which all entities and relationships are correctly represented | 20 |
| Relational data analysis on all company documentation provided | 20 |
| front-end report of: |  |
| Current bookings | 7.5 |
| Occupancy rates by month/week over the past year | 7.5 |
| Weekly/monthly income | 7.5 |
| Number of extras by category ordered in any given month and associated income | 7.5 |

**Sunshine Coast Hotel**

**Invoice**

Arrival date..............21/11/2017..........

Departure date........ 25/11/2017..............

Number of nights.......4..............................

Number of people........2............................

Room number........124..............................

Room Type.....1.........................................

Room type description........ Double...........

Price per night..........£85.................

#### Customer details

Customer ID.....101........................

Name.........Joe Bloggs....................

Address.....21 New Street, Hastings

......................................................

PostCode....TN25 8GD................

Booking Number ……67854

## Extras

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Date | Time | Type | Quantity | Price | total |
| 21/11/17 | 9:30pm | 3. Evening meal | 2 | £25 | £50 |
| 22/11/17 | 8:15am | 2. Continental breakfast | 2 | £5 | £10 |
| 22/11/17 | 2pm | 4. Range of bar snacks | 1 | £15 | £15 |
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Total of extras................£75.00

Total of room charge.....£208.00

Grand total...................£283.00

**Come again soon!**

# Appendix B: Example entity documentation

#### Entities

|  |  |  |
| --- | --- | --- |
| Entity Name | Description | Approximate number |
|  |  |  |
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#### Relationships

|  |  |  |  |
| --- | --- | --- | --- |
| From Entity | To Entity | Relationship Name | Multiplicity (1:1, 1:M, M:N) |
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|  |  |  |  |
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#### Attributes

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Entity | Attribute Name | Description | Data type & length | Nulls (Y/N) |
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