COMP3611

Assignment 2

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Assignment 2 is to be completed at the end of Module 2. It is worth 6% of your final mark, and it will be graded with a total of 30 marks. Submit an MS-Word document named COMP3611\_Assignment2 that contains your answers for this assignment.

4.8

Foreign keys:

1. In Room relation, hotelNo is a foreign key which targets the primary key attribute in Hotel relation.

2. In Booking relation, hotelNo is a foreign key which targets the primary key attribute in Hotel relation and guestNo is a foreign key which targets the primary key attribute in Guest relation.

Entity and referential integrity rules:

1. In Hotel relation, the primary key hotelNo can not be null.

2. In Room relation, the primary key which has roomNo and hotelNo can not be null. The foreign key hotelNo value must match a candidate key value of some tuple in Hotel relation or the foreign key value must be wholly null.

3. In Booking relation, the primary key which has guestNo, hotelNo and dataFrom can not be null. The foreign keys hotelNo and guestNo value must match a candidate key value of some tuple in their home relations or the foreign key value must be wholly null.

4. In Guest relation, the primary key guestNo can not be null.

4.9

Hotel

| hotelNo | hotelName | city |
| --- | --- | --- |
| H1300 | Victoria hotel | Victoria |
| H1301 | Vancouver hotel | Vancouver |
| H1302 | Burnaby hotel | Burnaby |

Room

| roomNo | hotelNo | type | price |
| --- | --- | --- | --- |
| 3001 | H1300 | Double room | 350 |
| 3002 | H1301 | Single room | null |
| 2005 | null | Double room | 380 |

Booking

| hotelNo | guestNo | dateFrom | dateTo | roomNo |
| --- | --- | --- | --- | --- |
| H1300 | 10001 | 6/22/2022 | 6/25/2022 | 3001 |
| H1301 | 10004 | 6/1/2022 | 6/7/2022 | 3002 |
| H1302 | 10007 | 7/12/2022 | 7/17/2022 | null |

Guest

| guestNo | guestName | guestAddress |
| --- | --- | --- |
| 10001 | Michelle | null |
| 10004 | Sara | Burnaby |
| 10007 | Anna | Victoria |

General constraints:

1. There are at most 100 rooms for each hotel.

2. One guest can book at most 3 rooms.

