The following tables form part of a database held in a relational DBMS:

- Hotel (HotelNo, Name, City)
- Room (RoomNo, HotelNo, Type, Price)
- Booking (HotelNo, GuestNo, DateFrom, DateTo, RoomNo)
- Guest (GuestNo, GuestName, GuestAddress)
- where Hotel contains hotel details and HotelNo is the primary key
- Room contains room details for each hotel and (HotelNo, RoomNo) forms the primary key
- Booking contains details of the bookings and the primary key comprises (HotelNo, GuestNo and DateFrom)
- Guest contains guest details and GuestNo is the primary key.

The sample data for the relation is as follows, populate your tables using these data.

HOTEL

```
fb01, Grosvenor, London
fb02, Watergate, Paris
ch01, Omni Shoreham, London
ch02, Phoenix Park, London
dc01, Latham, Berlin
```

ROOM

```
501, fb01, single, 19
601, fb01, double, 29
701, fb01, family, 39
1001, fb02, single, 58
1101, fb02, double, 86
1001, ch01, single, 29.99
1101, ch01, family, 59.99
701, ch02, single, 10
801, ch02, double, 15
901, dc01, single, 18
1001, dc01, double, 30
1101, dc01, family, 35
```

GUEST

```
10001, John Kay, 56 High St, London;
10002, Mike Ritchie, 18 Tain St, London
10003, Mary Tregear, 5 Tarbot Rd, Aberdeen
10004,Joe Keogh, 2 Fergus Dr, Aberdeen
10005, Carol Farrel, 6 Achray St, Glasgow
10006, Tina Murphy, 63 Well St, Glasgow
10007, Tony Shaw, 12 Park Pl, Glasgow
```

BOOKING

```
fb01, 10001, 04-04-01, 04-04-08, 501
fb01, 10004, 04-04-15, 04-05-15, 601
fb01, 10005, 04-05-02, 04-05-07, 501
fb01, 10002, 16-05-04, 04-05-29, 601
fb01, 10001, 04-05-01, null, 701
fb02, 10005, 04-05-12, 30-05-04, 1101
ch01, 10006, 04-04-21, null, 1101
ch02, 10002, 04-04-25, 04-05-06, 801
dc01, 10007, 04-05-13, 04-05-15, 1001
dc01, 10003, 04-05-20, null, 1001
```

1. Using the CREATE TABLE statement, create the Hotel, Room, Booking and Guest tables.
2. Insert records into each of these tables.
3. Update the price of all rooms by 5%.
4. List all double or family rooms with a price below £40.00 per night, in ascending order of price.
5. List the bookings for which no date_to has been specified.
6. Write a procedure to display the total revenue per night from all double rooms?
7. Write a function to display how many different guests have made bookings for August?
8. What is the total income from bookings for the Grosvenor Hotel today?
9. What is the lost income from unoccupied rooms at the Grosvenor Hotel?
10. List the number of rooms in each hotel in London.
11. What is the most commonly booked room type for each hotel in London?
12. Create a separate table with the same structure as the Booking table to hold archive records. Using the INSERT statement, copy the records from the Booking table to the archive table relating to bookings before 1st January 2008. Delete all bookings before 1st January 2008 from the Booking table.
13. Write a trigger to archive_Table_History table, reflecting the changes made every time a row of data is i/d/u in the archive_Table_history.