

Functionalities:

Hotel management portion:

-- Update price/type/max person of the room

```
update    room
set       cash_rate=120
where     room_id=202;
```

-- List all the rooms with details such as room number, price and type

-- Guest Room

```
select    R.room_id, RP.cash_rate, RP.point_rate, R.max_capacity,
          G.room_level
FROM      room R, guest_room G, room_price RP
WHERE     R.room_id=G.room_id AND R.type=RP.room_type AND
          R.max_capacity=RP.max_capacity;
```

-- Ballroom

```
SELECT    R.room_id, RP.cash_rate, RP.point_rate, R.max_capacity
FROM      room R, room_price RP, ballroom B
WHERE     B.room_id=R.room_id AND R.type=RP.room_type AND
          R.max_capacity=RP.max_capacity;
```

-- List all available guest rooms in a certain period

```
select    G.room_id, G.room_level, RP.cash_rate, RP.point_rate,
          R.max_capacity
from      guest_room G, room R, room_price RP
where     G.room_id=R.room_id and R.type=RP.room_type
          AND R.max_capacity=RP.max_capacity and G.room_id not in
          (select    room_id
           from      stay
           where     check_out_date>'2015-05-07' and
                    check_in_date<'2015-05-08');
```

-- List all available ballrooms in a certain period

```
select    B.room_id, B.area, RP.cash_rate, RP.point_rate,
          R.max_capacity
from      ballroom B, room R, room_price RP
where     B.room_id=R.room_id and R.type=RP.room_type
          AND R.max_capacity=RP.max_capacity and B.room_id not in
          (select    room_id
           from      stay
```

```
where      check_out_date>'2015-05-07' and
           check_in_date<'2015-05-08');
```

-- Check the schedule of a certain guest room / ball room

```
select      R.room_id, S.stay_id, S.check_in_date, S.check_out_date
from        room R, stay S
where       R.room_id = S.room_id AND R.room_id=101;
```

-- Make a reservation (assign a room to a guest)

```
INSERT INTO stay (check_in_date, check_out_date, point_amount,
money_amount, bonus_point, reserve_no,
c_email, room_id, promo_name, invoice_id )
VALUES
('2015-04-26', '2015-04-27', 0, 120, 0, 500001,
'chrishou118@gmail.com', 102, 'AAA', 200001);
```

-- Modify the reservations for guests (for example, modify the check-out date for all the rooms a guest reserved)

```
update      stay
set         check_out_date='2015-04-30'
where       stay_id=10001;
```

-- Cancel the reservations for guests

```
DELETE FROM      stay
WHERE            stay_id=10001;
```

-- List the stay history of a certain guest

```
select      *
from        stay
where       c_email='carolihuan@gmail.com';
```

-- Add a guest/company as a member

```
INSERT INTO      customer VALUES
('email', 'first_name', 'last_name', 'company_name', 'address',
'phone_no');
```

-- Change membership level for a member

```
UPDATE          membership
SET             level = 2
```

```
WHERE      c_email = 'chienshin1@gmail.com';
```

```
-- Provide certain free services to the guest with certain level  
membership (in application, we check the level of the membership. If  
it's >=4, $serviceprice is set to 0)
```

```
-- Get the occupation rate in a certain day
```

```
select      (select      count(room_id)  
             from        stay  
             where       check_in_date<='2015-04-21' and  
                        check_out_date>='2015-04-21')  
            /(select      count(*)  
             from        room);
```

```
-- Add new promotion
```

```
INSERT INTO promotion (promo_name, start_date, end_date,  
discount_amount, extra_bonus_point, required_stay_duration)  
VALUES ('New promotion', '2015-04-25','2015-05-25', 0.1, 200, 2);
```

```
-- Delete a promotion if it's not used in any stay yet
```

```
DELETE FROM      promotion  
WHERE           promo_name='2015 summer';
```

```
-- Get the frequency for the guest/company for a certain period in the  
past
```

```
SELECT      count(invoice_id)  
FROM        invoice I, stay S  
WHERE       I.stay_id=S.stay_id AND S.c_email='jackson@hotmail.com' AND  
S.check_in_date>='2014-05-01' AND S.check_in_date<='2015-05-01';
```

```
-- List all stays in a certain day
```

```
select      *  
from        stay  
where       check_in_date<='2015-04-21' and check_out_date>='2015-04-  
21';
```

```
-- List all promotions
```

```
select      *  
from        promotion, promo_room  
where       promotion.promo_name=promo_room.promo_name;
```

```
-- Add service to a stay
INSERT INTO service_ordered
VALUES (1, 10002, '2015-04-26', 3);
```

Guest portion:

```
-- Find the available guest room types and prices for a certain date
select      G.room_id, room_level, cash_rate, point_rate, max_capacity,
type
from        guest_room G, room R
where       G.room_id=R.room_id and G.room_id not in
            (select      room_id
             from stay
              where check_in_date<='2015-04-21' and check_out_date>='2015-
04-21');
```

```
-- Book a room.
```

```
-- First check whether the guest is in the database
SELECT      *
FROM        customer
WHERE       email='carolihuan@gmail.com';
-- If not in database, add the customer
INSERT INTO customer
VALUES ('carolihuan@gmail.com', 'Haaa', 'Yasfwe', 'SJSU', '1
Washington Sq, San Jose, CA 95192', '4089241000');
-- If the customer is in database, update the information
UPDATE customer
SET first_name='Wadfs', last_name='Hafewa',
    company_name='', address='4 Washington Ave',
phone_no='402342342' WHERE email='carolihuan@gmail.com';
-- Add the stay
INSERT INTO stay (check_in_date, check_out_date, point_amount,
money_amount, bonus_point,c_email, room_id, promo_name)
VALUES
('2015-05-28', '2015-05-29', 0, 120, 0, 500004,
'carolihuan@gmail.com', 101, 'AAA', 200004);
```

```
-- Find the available ballrooms for a certain date
```

```
select      B.room_id, cash_rate, point_rate, max_capacity, type
from        ballroom B, room R
where       B.room_id=R.room_id and B.room_id not in
```

```
(select    room_id
from stay
where check_in_date<='2015-04-21' and check_out_date>='2015-04-21');
```

-- Book an event(first check the available ballrooms)

```
INSERT INTO event (event_name, number_of_people)
VALUES ('Birthday Party',50);
```

```
INSERT INTO event_room
VALUES (1,103),(1,203);
```

-- Enter the guest/company information (same with booking the guest room above. If the email is already in the database, update the guest information. If not, add the guest)

-- Get the invoice for a certain stay

```
select *
FROM invoice
WHERE stay_id=10003;
```

-- Get the stay history

```
select      *
from        stay
where       c_email='carolihuan@gmail.com';
```

-- Get details of membership points usage, ordered by check-in date

```
SELECT      check_in_date, point_amount
FROM        stay
WHERE       c_email = 'chienshin1@gmail.com'
ORDER BY    check_in_date;
```

-- Check available promotions in a certain day

```
select      *
from        promotion
where       start_date <= '2015-04-20' and end_date >= '2015-04-20';
```

-- List all the services provided

```
select      *
from        service;
```

-- Order service for a stay (same with the one in hotel management portion)

```
INSERT INTO service_ordered  
VALUES (1, 10002, '2015-04-26', 3);
```

-- Cancel a room the day before check-in

```
DELETE FROM      stay  
WHERE            stay_id=10001;
```

-- Check available points/ member_id/ level

```
SELECT      points, member_id, level  
FROM        membership  
WHERE       c_email = 'chienshin1@gmail.com';
```