

SPA DATA MANAGEMENT SYSTEM

There are four departments in the spa (Management, Reservation, Massage and Treatment)

The store provides its guests with service. By making reservation staff reservations, then paying cashier staff and providing massage or treatment service.

The spa management system records the work of the staff and organizes them.

In an organized way, the system provides control and management.

Recording guest data and services, recording each staff's work in his department. Access to guest payment details. Can access information on staff, guest.

Tables

1. department (dept_id, dept_name, staff_id)

dept_id	dept_name	staff_id
8002	Reservation	88611
8003	MASSAGES	88711
8004	TREATMENTS	88811
8101	Management	88511
NULL	NULL	NULL

2. Staff (staff_id, staff_Fname, staff_Lname, gender, staff_phone, bday, staff_salary, dept_id, boss_id)
 - a. fk_staff_department foreign key (dept_id)
 - b. fk_staff_boss foreign key (boss_id)

staff_id	staff_Fname	staff_Lname	gender	staff_phone	bday	staff_salary	dept_id	boss_id
88511	Ab	Ma	M	3078547	1980-10-17	1200	8101	NULL
88611	Am	Kh	F	3478596	1990-10-10	1000	8101	NULL
88622	Sa	Fa	F	3004267	1985-11-03	750	8002	88611
88633	As	Mo	F	70891737	1998-11-30	900	8002	88611
88711	Ba	Sa	M	3777592	1989-02-12	1100	8101	NULL
88722	Ib	Ad	F	3004267	1985-11-03	900	8003	88711
88733	Mo	Ra	F	3960377	1985-11-03	800	8003	88711
88811	As	Ay	M	3777592	1989-02-12	1000	8101	NULL
88822	Em	Tr	M	3303168	1993-02-10	800	8004	88811
88833	Mi	Mr	F	3004267	1985-11-03	950	8004	88811
NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

3. guest (guest_id, guest_Fname, guest_Lname, guest_phone, bday)

guest_id	guest_Fname	guest_Lname	guest_phone	bday
3478123	Qa	Zs	72563478	1978-10-18
3478147	We	Rd	81776682	1998-07-08
3478159	Ni	Td	76957135	1990-03-28
3478258	Ke	No	2786417	1988-12-01
NULL	NULL	NULL	NULL	NULL

4. category (catg_name, Price, descreption)

catg_name	Price	descreption
MASSAGE	50	60 min of full body massage
TREATMENT	75	40 min of face cleaning
NULL	NULL	NULL

5. room (room_id, floor, catg_name)
 - a. fk_room_category foreign key (catg_name)

room_id	floor	catg_name
101	1	MASSAGE
102	1	MASSAGE
202	2	TREATMENT
203	2	TREATMENT
NULL	NULL	NULL

6. assigned (**asg_id**,staff_id ,room_id)
- fk_assigned_staff foreign key (staff_id)
 - fk_assigned_room foreign key (room_id)

asg_id	staff_id	room_id
9901	88722	101
9902	88733	102
9904	88822	203
9905	88833	202

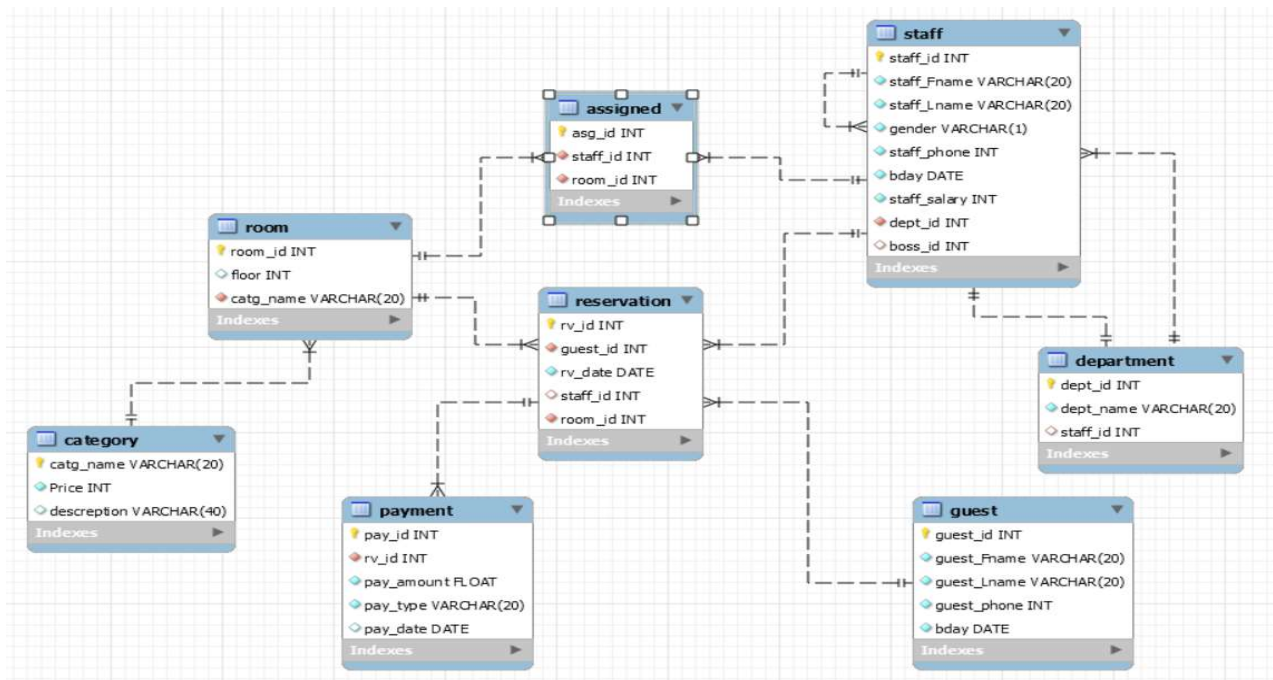
7. reservation (**rv_id**,guest_id,rv_date,staff_id,room_id)
- fk_reservation_guest foreign key (guest_id)
 - fk_reservation_staff foreign key (staff_id)
 - fk_reservation_room foreign key (room_id)

rv_id	guest_id	rv_date	staff_id	room_id
6474014	3478123	2020-01-15	88622	101
6474024	3478147	2020-01-16	88622	102
6474026	3478159	2020-01-21	88633	202
6474247	3478258	2020-01-22	88633	203

8. payment (**pay_id**,rv_id,pay_amount,pay_type,pay_date)
- fk_payment_reservation foreign key (rv_id)

pay_id	rv_id	pay_amount	pay_type	pay_date
20203771	6474014	50	Cash	2020-01-15
20203782	6474024	50	Cash	2020-01-16
20203824	6474026	75	Visa	2020-01-21
20203920	6474247	75	Cash	2020-01-22

Diagram



Queries

1. Report a staff name and dept name for each reservation

```
select RV.rv_id,RV.staff_id,staff.staff_Fname,dept.dept_name
from reservation RV,staff ,department dept
where staff.staff_id=RV.staff_id and staff.dept_id=dept.dept_id;
```

rv_id	staff_id	staff_Fname	dept_name
6474014	88622	Sa	Reservation
6474024	88622	Sa	Reservation
6474026	88633	As	Reservation
6474247	88633	As	Reservation

2. Report the guest id of guest last name star with (T).

```
select guest_id , guest_Fname,guest_Lname
from guest
where guest_Lname regexp '^T';
```

guest_id	guest_Fname	guest_Lname
3478159	Ni	Td

3. List the names of the staff who earn more than salary avg

```
select staff.staff_Fname ,dept.dept_name
from staff , department dept
where staff.dept_id=dept.dept_id and staff.staff_salary > ( select avg(staff_salary) from staff);
```

staff_Fname	dept_name
Ab	Management
Am	Management
Ba	Management
As	Management
Mi	TREATMENTS

4. Report the count of different category of room assigned by each department .

```
select dept.dept_name,room.catg_name,count(room.room_id) as 'Room Number'
from staff , assigned ASG , department dept,room
where ASG.staff_id=staff.staff_id and ASG.room_id=room.room_id and
staff.dept_id=dept.dept_id
group by (room.catg_name);
```

dept_name	catg_name	Room Number
MASSAGES	MESSAGE	2
TREATMENTS	TREATMENT	2

5. report the amount of reservation by each employees from maximum to minimum

```
select staff.staff_Fname,staff.staff_Lname,sum(PAY.pay_amount)as "Amount"
from staff ,payment PAY, reservation RV
where RV.rv_id=PAY.rv_id and staff.staff_id=RV.staff_id
group by(staff.staff_id)
order by (sum(PAY.pay_amount)) DESC;
```

staff_Fname	staff_Lname	Amount
As	Mo	150
Sa	Fa	100

6. report all staff contact with each guest

```
select guest.guest_id , guest.guest_Fname ,staff.staff_fname , dept.dept_name
from guest , reservation RV , staff, department dept
where guest.guest_id=RV.guest_id and staff.staff_id=RV.staff_id and
dept.dept_id=staff.dept_id
UNION
select guest.guest_id , guest.guest_Fname ,staff.staff_fname , dept.dept_name
from guest ,room , reservation RV , staff, department dept, assigned ASG
where guest.guest_id=RV.guest_id and RV.room_id=room.room_id and
room.room_id=ASG.room_id and staff.staff_id=ASG.staff_id and staff.dept_id=dept.dept_id
ORDER BY guest_id ;
```

guest_id	guest_Fname	staff_fname	dept_name
3478123	Qa	Sa	Reservation
3478123	Qa	Ib	MASSAGES
3478147	We	Sa	Reservation
3478147	We	Mo	MASSAGES
3478159	Ni	As	Reservation
3478159	Ni	Mi	TREATMENTS
3478258	Ke	As	Reservation
3478258	Ke	Em	TREATMENTS

7. Report the guest who have spent more than 50 \$

```
select distinct guest.guest_Fname,RV.rv_id ,PAY.pay_amount
from guest, reservation RV ,payment PAY
```

where RV.guest_id=guest.guest_id and PAY.rv_id=RV.rv_id
and PAY.pay_amount>50 ;

guest_Fname	rv_id	pay_amount
Ni	6474026	75
Ke	6474247	75

8. Report the reservation for guest "Ni" exist in TREATMENT room

```
select RV.rv_id,RV.guest_id,guest.guest_Fname
from reservation RV, guest
where Guest.guest_id=RV.guest_id and guest_Fname='Ni'
and EXISTS (SELECT * FROM room
WHERE room.room_id=RV.room_id and room.catg_name='TREATMENT' );
```

rv_id	guest_id	guest_Fname
6474026	3478159	Ni

9. create a view voucher

```
CREATE VIEW Voucher AS
select guest.guest_Fname ,
guest.guest_Lname,room.catg_name,RV.room_id,CAT.descreption,PAY.pay_amount,PAY.pay_
date,PAY.pay_type,staff.staff_fname
from (((((reservation RV
inner join room on room.room_id=RV.room_id)
inner join category CAT on room.catg_name=CAT.catg_name)
inner join guest on RV.guest_id=guest.guest_id )
inner join staff on RV.staff_id=staff.staff_id)
inner join payment PAY on RV.rv_id=PAy.rv_id) ;
```

guest_Fname	guest_Lname	catg_name	room_id	descreption	pay_amount	pay_date	pay_type	staff_fname
Qa	Zs	MASSAGE	101	60 min of full body massage	50	2020-01-15	Cash	Sa
We	Rd	MASSAGE	102	60 min of full body massage	50	2020-01-16	Cash	Sa
Ni	Td	TREATMENT	202	40 min of face cleaning	75	2020-01-21	Visa	As
Ke	No	TREATMENT	203	40 min of face cleaning	75	2020-01-22	Cash	As

10. update the costperday increace 20% for studio

```
update category
SET price = price*1.2
where catg_name = 'MASSAGE';
select * from category;
```

	catg_name	Price	descreption
►	MASSAGE	50	60 min of full body massage

→

	catg_name	Price	descreption
►	MASSAGE	60	60 min of full body massage

Before

After

Improvement

All data related to the Spa, personnel, guests, staff , massages and tratmaints can be saved by the established system.

By reacting efficiently to several queries reviewed, it has proven its effectiveness.

The data management system makes it easier to access any records, as it offers the best monitoring and control of all the events in the Spa.