

```
create database hotel_project;
use hotel_project;
select * from data2018;
select * from data2019;
select * from data2020;
```

### **-- appending all 3 tables using union operator and creating it as hotel table**

```
create table hotel as
select * from data2018
union
select * from data2019
union
select * from data2020;

select * from hotel;
```

### **-- changing datatype of reservation status date column to date**

```
UPDATE hotel SET reservation_status_date =
STR_TO_DATE(reservation_status_date, '%d-%m-%Y');
```

### **-- To see if hotel's revenue increased year by yearS**

### **-- For this, calculating cost of revenue of each visitor for each day**

### **-- By multiplying daily rate with stays in weekend and week nights of visitors**

```

select hotel,arrival_date_year,
round(sum((stays_in_weekend_nights+stays_in_week_nights)*adr),2) as
revenue

from hotel group by arrival_date_year
,hotel order by 1;

```

	hotel	arrival_date_year	revenue
►	City Hotel	2018	1764060.07
	City Hotel	2019	9365478.77
	City Hotel	2020	6265358.52
	Resort Hotel	2018	3120849.49
	Resort Hotel	2019	9308524.65
	Resort Hotel	2020	6225393.01

### -- By what % did hotel's revenue increased day by day?

```

with cte as(select hotel,arrival_date_year,
round(sum((stays_in_weekend_nights+stays_in_week_nights)*adr),2) as
revenue

from hotel group by arrival_date_year
,hotel order by 1),

cte2 as(

select hotel, arrival_date_year, revenue, lead(revenue) over (partition by hotel
order by arrival_date_year) as next_year_rev

from cte)

select hotel, arrival_date_year, revenue, next_year_rev ,
round((((next_year_rev-revenue)/revenue)*100,2) as per_change from cte2

where next_year_rev is not null;

```

	hotel	arrival_date_year	revenue	next_year_rev	per_change
▶	City Hotel	2018	1764060.07	9365478.77	430.9
	City Hotel	2019	9365478.77	6265358.52	-33.1
	Resort Hotel	2018	3120849.49	9308524.65	198.27
	Resort Hotel	2019	9308524.65	6225393.01	-33.12

## -- market\_segment table

select \* from market\_segment;

	Discount	market_segment
▶	0	Undefined
	0.1	Direct
	0.1	Groups
	0.15	Corporate
	0.2	Aviation
	0.3	Offline TA/TO
	0.3	Online TA
	1	Complementary

## -- meal table

select \* from meals;

	Cost	meal
▶	0	Undefined
	12.99	BB
	17.99	HB
	21.99	FB
	35	SC

-- Joining meal and market\_segment tables with hotel table to see discount on market\_segment and cost of each meal in hotel data

```
select * from hotel left join market_segment on
hotel.market_segment=market_segment.market_segment left join meals on
hotel.meal=meals.meal;
```

	waiting_list	customer_type	adr	required_car_parking_spaces	total_of_special_requests	reservation_status	reservation_status_date	Discount	market_segment	Cost	meal
▶		Transient	82	0	1	Canceled	2018-05-06	0.3	Online TA	12.99	BB
		Transient	105.5	0	0	Canceled	2018-04-22	0.3	Offline TA/TO	17.99	HB
		Transient	123	0	0	Canceled	2018-06-23	0.3	Online TA	12.99	BB
		Transient	107	0	2	Canceled	2018-05-11	0.3	Online TA	12.99	BB
		Transient	108.3	0	2	Canceled	2018-05-29	0.1	Direct	12.99	BB
		Transient	108.8	0	1	Canceled	2018-05-19	0.3	Online TA	12.99	BB
		Transient	108.8	0	1	Canceled	2018-06-19	0.3	Online TA	12.99	BB
		Transient	108.8	0	0	Canceled	2018-05-23	0.3	Online TA	12.99	BB
		Transient	117.81	0	0	Canceled	2018-05-18	0.3	Online TA	17.00	BB

-- Calculating revenue after discount of each visitor for each day

-- By multiplying daily rate with stays in weekend and week nights of visitors and discount column

```
select *,
round((((stays_in_weekend_nights+stays_in_week_nights)*adr*Discount),2) as
revenue
```

```
from hotel left join market_segment on
hotel.market_segment=market_segment.market_segment left join meals on
hotel.meal=meals.meal;
```

	customer_type	adr	required_car_parking_spaces	total_of_special_requests	reservation_status	reservation_status_date	Discount	market_segment	Cost	meal	revenue
▶	Transient	82	0	1	Canceled	2018-05-06	0.3	Online TA	12.99	BB	73.8
	Transient	105.5	0	0	Canceled	2018-04-22	0.3	Offline TA/TO	17.99	HB	94.95
	Transient	123	0	0	Canceled	2018-06-23	0.3	Online TA	12.99	BB	147.6
	Transient	107	0	2	Canceled	2018-05-11	0.3	Online TA	12.99	BB	224.7
	Transient	108.3	0	2	Canceled	2018-05-29	0.1	Direct	12.99	BB	108.3
	Transient	108.8	0	1	Canceled	2018-05-19	0.3	Online TA	12.99	BB	130.56
	Transient	108.8	0	1	Canceled	2018-06-19	0.3	Online TA	12.99	BB	130.56
	Transient	108.8	0	0	Canceled	2018-05-23	0.3	Online TA	12.99	BB	130.56