

Project 5

5.A-B) Display all tables with normalization

Query

Query History

1

SELECT * FROM public.guest

2

ORDER BY guest_id ASC

Scratch Pad

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Data Output

Messages

Notifications

Showing rows: 1 to 5

Page No. 1 of 1

guest_id [PK] integer	first_name character varying (80)	last_name character varying (80)	email character varying (160)	phone character varying (25)	address character varying (255)	dob date	id_passport_no character varying (40)	preferences text	source character varying (40)	date_registered timestamp without time zone	registered_by integer
1	Dracula	Count	dracula@example.com	+1-512-555-0101	200 W 2nd St, Austin, TX 78701	2001-06-	TX9876543	Coffin view, blackout curtains	Phone	2025-10-01 10:12:00	1
2	Mavis	Dracula	mavis.dracula@example.com	+1-214-555-0102	1900 N Akard St, Dallas, TX 75201	1995-03-	DL55661	Near ballroom, bat snacks	Web	2025-09-28 14:40:00	2
3	Frankenstein	Monster	frank.monster@example.com	+1-713-555-0103	1600 McKinney St, Houston, TX 77010	1990-11-	HOU44120	Ground floor, extra bolts	Walk-in	2025-09-30 09:05:00	1
4	Murray	Mummy	murray.mummy@example.co..	+1-210-555-0104	110 Inner Campus Dr, Austin, TX 78712	1999-01-	TX112244	Sand bed only	Phone	2025-10-02 18:20:00	5
5	Wayne	Werewolf	wayne.werewolf@example.c..	+1-469-555-0105	849 E Commerce St, San Antonio, TX 78...	1986-07-	SA778899	Soundproof room, lots of sna..	Phone	2025-09-25 12:05:00	1

Query

Query History

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```
SELECT * FROM public.housekeeping_task
ORDER BY task_id ASC LIMIT 100
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Data Output

Messages

Notifications

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	task_id [PK] integer	room_id integer	task_date date	status character varying (16)	assigned_to character varying (120)	completed_at timestamp without time zone	notes text	
1	1	104	2025-10-08	PENDING	Gremlin Steve	[null]	Turnover after check...	
2	2	202	2025-10-09	DONE	Gremlin Steve	2025-10-09 13:20:00	Restock amenities	
3	3	201	2025-10-14	PENDING	Witch Wanda	[null]	Prep for new arrival	
4	4	103	2025-10-12	PENDING	Zombie Bellhop	[null]	Standard clean	
5	5	109	2025-10-15	PENDING	Frankenstein's Assistant	[null]	Suite deep clean	

Query

Query History

1

SELECT * FROM public.reservation

2

ORDER BY res_id ASC LIMIT 100

3

Data Output

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	res_id [PK] integer	guest_id integer	check_in date	check_out date	adults integer	children integer	requested_type character varying (10)	status character varying (16)	assigned_room integer	created_at timestamp without time zone
1	1	1	2025-10-...	2025-10-14	2	0	STD	IN_HOUSE	201	2025-10-11 09:45:00
2	2	2	2025-10-...	2025-10-13	2	0	DBL	IN_HOUSE	103	2025-10-10 15:30:00
3	3	3	2025-10-...	2025-10-09	2	0	STD	COMPLETE	201	2025-10-01 12:00:00
4	4	4	2025-10-...	2025-10-15	2	0	STE	IN_HOUSE	109	2025-10-10 20:10:00
5	5	5	2025-10-...	2025-10-08	2	0	DBL	COMPLETE	104	2025-10-02 09:00:00

QueryQuery History

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SELECT * FROM public.room

ORDER BY room_id ASC LIMIT 100

Data OutputMessagesNotifications

	room_id [PK] integer	type_code character varying (10)	floor integer	status character varying (16)	oos_reason character varying (120)
1	103	DBL	1	CLEAN	[null]
2	104	DBL	1	DIRTY	[null]
3	109	STE	1	CLEAN	[null]
4	201	STD	2	CLEAN	[null]
5	202	STD	2	DIRTY	[null]

QueryQuery History

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SELECT * FROM public.room_type

ORDER BY type_code ASC LIMIT 100

Data OutputMessagesNotifications

	type_code [PK] character varying (10)	name character varying (60)	capacity integer	base_rate numeric (8,2)	bed_type character varying (40)	view character varying (40)	smoking_allowed boolean	check_in_time time without time zone	check_out_time time without time zone
1	ACC	Accessible Queen	3	149.00	Queen	City	false	15:00:00	11:00:00
2	DBL	Double Queen	4	159.00	2 Queen	City	false	15:00:00	11:00:00
3	DLX	Deluxe King	2	189.00	King	Pool	false	15:00:00	11:00:00
4	STD	Standard King	2	139.00	King	City	false	15:00:00	11:00:00
5	STE	One-Bedroom Suite	4	239.00	King+Sofa	Skyline	false	15:00:00	11:00:00

Query Query History

```
1 SELECT * FROM public.staff
2 ORDER BY staff_id ASC LIMIT 100
3
```

Data Output Messages Notifications



	staff_id [PK] integer	full_name character varying (120)	role character varying (60)
1	1	Zombie Bellhop	Front Desk
2	2	Witch Wanda	Front Desk
3	3	Gremlin Steve	Housekeeping Lead
4	4	Invisible Man	Manager
5	5	Frankenstein's Assistant	Front Desk

Query

Query History

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SELECT * FROM public.stay

ORDER BY stay_id ASC LIMIT 100

Data Output

Messages

Notifications

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	stay_id [PK] integer 	res_id integer 	check_in_ts timestamp without time zone 	check_out_ts timestamp without time zone 
1	1	1	2025-10-12 15:22:00	[null]
2	2	2	2025-10-12 17:30:00	[null]
3	3	3	2025-10-07 16:10:00	2025-10-09 10:45:00
4	4	4	2025-10-12 18:10:00	[null]
5	5	5	2025-10-06 14:00:00	2025-10-08 11:00:00

5.C) Creating 15 queries in English Sentence

1. List today's arrivals with guest name, party size, requested type, assigned room, and whether the room is CLEAN and not OOS.
2. List dirty rooms with no housekeeping task pending today.
3. List bookings with status BOOKED and check-in within the next 3 days, ordered by check-in then created_at.
4. List room counts by room type and status for today (CLEAN, DIRTY, OOS, OCCUPIED).
5. List clean and vacant rooms with the date of their next reservation (or "None"), ordered by earliest next reservation.
6. List housekeeping tasks assigned to staff whose role is Front Desk, grouped by staff with counts and latest completion time.
7. List OOS rooms with reason and number of days OOS, ordered by longest OOS first.
8. List guests and their total completed stays, showing only guests with at least 2 completed stays.
9. List reservations where adults + children exceed the capacity of the assigned room type.

10. List rooms that have a same-day check-out and check-in today, with a flag showing if the room is currently CLEAN.
11. List reservations cancelled or no-show in the last 30 days, grouped by status with counts and percentages of total created in that period.
12. List occupancy percentage for a given date overall and by room type, using $\text{rooms_sold} \div (\text{total_rooms} - \text{rooms_OOS})$.
13. List housekeeping staff by name with the number of DONE tasks yesterday and the median task completion time.
14. List rooms with overlapping reservations, showing the two res_id values and guest names.
15. List top 5 guests by total nights stayed in the last 90 days, including their email and phone.