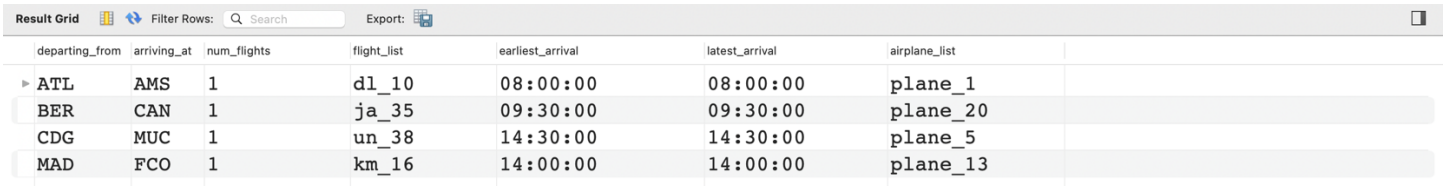
Simple Airline Management System (SAMS)

CS 4400: Introduction to Database Systems
Course Project: Fall 2023 Semester

Examples of View Data for the Course Project: Phase 3

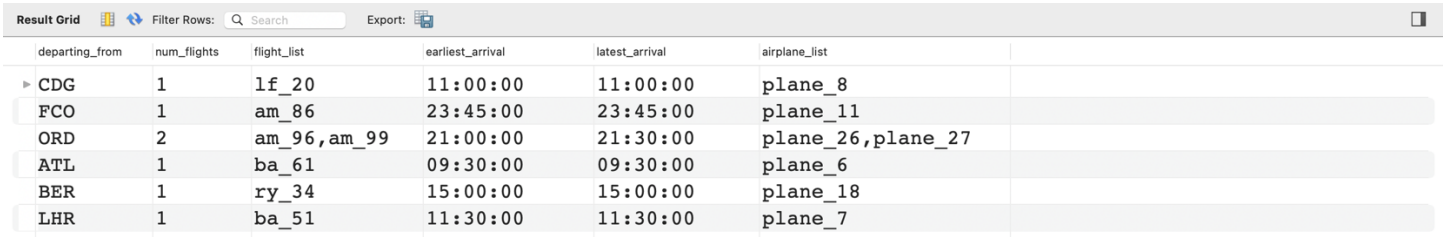
-- [14] flights_in_the_air()
This view describes where flights that are currently airborne are located. We need to display what airports these flights are departing from, what airports they are arriving at, the number of flights that are flying between the departure and arrival airport, the list of those flights, the earliest and latest arrival times for the destinations and the list of planes (by the location id) flying these flights.



Result Grid | Filter Rows: Search | Export:

departing_from	arriving_at	num_flights	flight_list	earliest_arrival	latest_arrival	airplane_list
ATL	AMS	1	dl_10	08:00:00	08:00:00	plane_1
BER	CAN	1	ja_35	09:30:00	09:30:00	plane_20
CDG	MUC	1	un_38	14:30:00	14:30:00	plane_5
MAD	FCO	1	km_16	14:00:00	14:00:00	plane_13

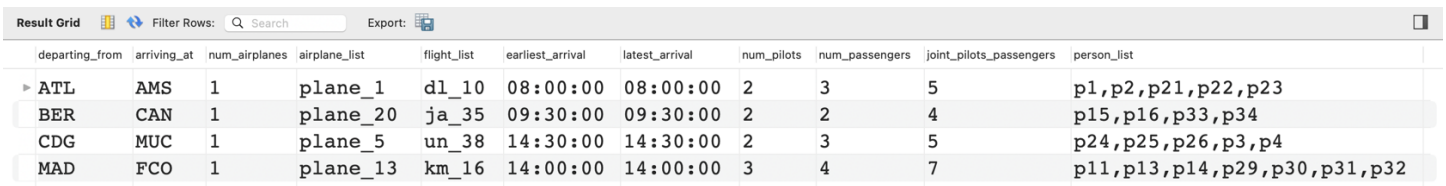
-- [15] flights_on_the_ground()
This view describes where flights that are currently on the ground are located. We need to display what airports these flights are departing from, how many flights are departing from each airport, the list of flights departing from each airport, the earliest and latest arrival time amongst all of these flights at each airport, and the list of planes (by their location id) that are departing from each airport.



Result Grid | Filter Rows: Search | Export:

departing_from	num_flights	flight_list	earliest_arrival	latest_arrival	airplane_list
CDG	1	lf_20	11:00:00	11:00:00	plane_8
FCO	1	am_86	23:45:00	23:45:00	plane_11
ORD	2	am_96,am_99	21:00:00	21:30:00	plane_26,plane_27
ATL	1	ba_61	09:30:00	09:30:00	plane_6
BER	1	ry_34	15:00:00	15:00:00	plane_18
LHR	1	ba_51	11:30:00	11:30:00	plane_7

-- [16] people_in_the_air()
This view describes where people who are currently airborne are located. We need to display what airports these people are departing from, what airports they are arriving at, the list of planes (by the location id) flying these people, the list of flights these people are on, the earliest and latest arrival times of these people, the number of these people that are pilots, the number of these people that are passengers, the number of people on the airplane, and the list of these people by their person id.



Result Grid | Filter Rows: Search | Export:

departing_from	arriving_at	num_airplanes	airplane_list	flight_list	earliest_arrival	latest_arrival	num_pilots	num_passengers	joint_pilots_passengers	person_list
ATL	AMS	1	plane_1	dl_10	08:00:00	08:00:00	2	3	5	p1,p2,p21,p22,p23
BER	CAN	1	plane_20	ja_35	09:30:00	09:30:00	2	2	4	p15,p16,p33,p34
CDG	MUC	1	plane_5	un_38	14:30:00	14:30:00	2	3	5	p24,p25,p26,p3,p4
MAD	FCO	1	plane_13	km_16	14:00:00	14:00:00	3	4	7	p11,p13,p14,p29,p30,p31,p32

-- [17] people_on_the_ground()

This view describes where people who are currently on the ground are located. We need to display what airports these people are departing from by airport id, location id, and airport name, the city and state of these airports, the number of these people that are pilots, the number of these people that are passengers, the number people at the airport, and the list of these people by their person id.

Result Grid Filter Rows: Search Export:

departing_from	airport	airport_name	city	state	country	num_pilots	num_passengers	joint_pilots_passengers	person_list
BCN	port_15	Barcelona Internati…	Barcelona	Catalonia	ESP	0	2	2	p39,p44
BER	port_23	Berlin Brandenburg…	Berlin	Schonefeld	DEU	1	0	1	p19
CDG	port_12	Paris Charles de Ga…	Roissy_en…	Paris	FRA	1	3	4	p18,p35,p36,p37
HND	port_3	Tokyo International…	Ota City	Tokyo	JPN	0	1	1	p41
IAH	port_20	George Bush Interco…	Houston	Texas	USA	0	1	1	p40
LHR	port_4	London Heathrow	London	England	GBR	1	1	2	p20,p42
MAD	port_14	Madrid Adolfo Suare…	Madrid	Barajas	ESP	0	2	2	p38,p43
ORD	port_10	O_Hare International	Chicago	Illinois	USA	1	0	1	p17

-- [18] route_summary()

This view will give a summary of every route. This will include the routeID, the number of legs per route, the legs of the route in sequence, the total distance of the route, the number of flights on this route, the flightIDs of those flights, and the sequence of airports visited by the route.

Result Grid Filter Rows: Search Export:

route	num_legs	leg_sequence	route_length	num_flights	flight_list	airport_sequence
americas_hub_exchange	1	leg_4	600	2	am_96,am_99	ATL->ORD
americas_one	2	leg_2,leg_1	4300	1	dl_10	ATL->AMS,AMS->BER
americas_three	2	leg_31,leg_14	4100	1	un_38	ORD->CDG,CDG->MUC
americas_two	2	leg_3,leg_22	4300	1	ba_61	ATL->LHR,LHR->BER
big_europe_loop	5	leg_23,leg_29,leg_16…	2500	1	ba_51	LHR->MUC,MUC->FCO,FCO->MAD,MAD->…
euro_north	6	leg_16,leg_24,leg_5,…	2900	1	lf_20	FCO->MAD,MAD->BCN,BCN->CDG,CDG->…
euro_south	6	leg_21,leg_9,leg_28,…	2900	1	km_16	LGW->BER,BER->MUC,MUC->CDG,CDG->…
germany_local	3	leg_9,leg_30,leg_17	800	1	ry_34	BER->MUC,MUC->FRA,FRA->BER
pacific_rim_tour	3	leg_7,leg_10,leg_18	6400	1	ja_35	BER->CAN,CAN->HND,HND->NRT
south_euro_loop	4	leg_16,leg_24,leg_5,…	2200	1	am_86	FCO->MAD,MAD->BCN,BCN->CDG,CDG->…
texas_local	3	leg_15,leg_20,leg_19	600	0	NULL	DFW->IAH,IAH->HOU,HOU->DFW

-- [19] alternative_airports()

This view displays airports that share the same city and state. It should specify the city, state, the number of airports shared, and the lists of the airport codes and airport names that are shared.

Result Grid Filter Rows: Search Export:

city	state	country	num_airports	airport_code_list	airport_name_list
Chicago	Illinois	USA	2	MDW,ORD	Chicago Midway International,O_Hare International
Houston	Texas	USA	2	HOU,IAH	William P_Hobby International,George Bush Intercontinental
London	England	GBR	2	LGW,LHR	London Gatwick,London Heathrow

Version History

Version	Date	Notes
0	September 12, 2023	Initial Release