SQL Assignment

Nikita Joseph

CUNY SPS

IS 362

**Question One**

/\* How many airplanes have listed speeds? \*/

SELECT count(\*) FROM flights.planes

where speed is NOT NULL; /\* Answer = 23 \*/

/\* What is the minimum listed speed \*/

SELECT min(speed) FROM flights.planes

where speed is NOT NUlL; /\* Answer = 90 \*/

/\* What is the maximum listed speed \*/

SELECT max(speed) FROM flights.planes

where speed is NOT NUlL; /\* Answer = 432 \*/



**/\*** What is the total distance flown by all of the planes in January 2013? \*/

SELECT SUM(distance) as "Total Distance" FROM flights.flights

where year=2013 and month=1; /\* Answer = 27188805 \*/

/\* What is the total distance flown by all of the planes in January 2013 where the tailnum is missing? \*/

SELECT SUM(distance) as "Total Distance" FROM flights.flights

where year=2013 and month=1 and tailnum=NULL;



**/\*** Inner join \*/

SELECT p.manufacturer , SUM(distance) as "Total Distance" FROM flights.flights as f

inner join flights.planes as p on f.tailnum = p.tailnum

where f.year=2013 and f.month=7 and f.day=5

group by p.manufacturer ;

/\* LEFT OUTER JOIN \*/

SELECT p.manufacturer , SUM(distance) as "Total Distance" FROM flights.flights as f

left join flights.planes as p on f.tailnum = p.tailnum

where f.year=2013 and f.month=7 and f.day=5

group by p.manufacturer ;

/\* Left outer join can detect records having no match in joined table. It returns NULL values for records of joined table if no match is found. \*/



/\* Get the talinum, manufacturer, carrier name, departure time, and arrival time of flights in July 5, 2013 without delays \*/

SELECT f.tailnum, p.manufacturer , a.name as "Carrier Name", f.dep\_time as "Departure Time", f.arr\_time as "Arrival Time" FROM flights.flights as f

inner join flights.planes as p on f.tailnum = p.tailnum

inner join flights.airlines as a on f.carrier = a.carrier

where f.year=2013 and f.month=7 and f.day=5 and f.dep\_delay>-1;

**Question Two**

**Calculating the On-time Performance (departing within 15 mins of the scheduled departure time) for all airlines. We calculate this by dividing the number of flights that departed on time by the total number of departures \*100. Grouped by the airline.**

select f.carrier, b.name,(select count(\*) from flights.flights as a where a.dep\_delay<15 and (a.carrier=f.carrier))/count(\*) \*100 as "On-time Performance" from flights.flights as f

inner join flights.airlines as b on b.carrier = f.carrier

group by f.carrier

INTO outfile 'C:/wamp64/tmp/on-time-performance.csv'

FIELDS TERMINATED BY ','

ENCLOSED BY '"'

LINES TERMINATED BY '\n';