Hands On Labs – SQL SELECT Basics

These ungraded hands-on-lab will help you build your skills working with combining information from multiple tables. Solutions to all problems are immediately available, but you'll learn the material more *durably* if you attempt each problem before consulting its solution.

All of the queries use tables in the flights database. You may find the data descriptions here helpful:

http://cran.r-project.org/web/packages/nycflights13/nycflights13.pdf

1. Write a SELECT statement that returns all of the rows and columns in the planes table

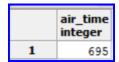2. Using the weather table, concatenate the year, month, and day columns to display a date in the form "3/17/2013".

Consider using the CONCAT() function.

3. Order by planes table by number of seats, in descending order.
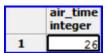
For your reference, here are the first few rows of the resultset…

	tailnum character(6)	year integer	type character varying	manufacturer character varying	model character varying	engines integer	seats integer	speed integer	engine character varying
1	N670US	1990	Fixed wing mult	BOEING	747-451	4	450		Turbo-jet
2	N57016	2000	Fixed wing mult	BOEING	777-224	2	400		Turbo-fan
3	N862DA	1999	Fixed wing mult	BOEING	777-232	2	400		Turbo-jet
4	N272AT		Fixed wing mult	BOEING	777-200	2	400		Turbo-jet
5	N78013	1999	Fixed wing mult	BOEING	777-224	2	400		Turbo-fan

4. List only those planes that have an engine that is 'Reciprocating'

5. List only the first 5 rows in the flights table

6. What was the longest (non-blank) air time?

	air_time integer
1	695

7. What was the shortest (non-blank) air time for Delta?

	air_time integer
1	26

8. Show all of the Alaska Airlines flights between June 1st, 2013 and June 3rd, 2013. Is the way the data is stored in the database helpful to you in making your query?

9. Show all of the airlines whose names contain 'America'

	carrier character(2)	name character varying
1	AA	American Airlines Inc.
2	VX	Virgin America

10. How many flights went to Miami?

	count bigint
1	11728

11. Were there more flights to Miami in January 2013 or July 2013? (Multiple queries are OK)

12. What is the average altitude of airports?