IS 497 T4B

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Observations and comparisons about speed while performing imports:

Our team observed different speed values for importing the two csv files into PostgreSQL on AWS. These are specified in the table given below:

Team Member	Shubhangi	Srishti	Tanya	Varad
Air Traffic Database 1	123.04 s	39.63 s	1173.27 s	1034.35 s
Air Traffic Database 2	114.32 s	39.59 s	1046.85 s	981.97 s

It is evident from the given table how the internet upload bandwidth has an effect on the speed of these uploads as Shubhangi and Srishti performed these uploads individually with the entire bandwidth of their home internet dedicated to this task while Tanya and Varad together performed this task and hence, the upload speed was way slower than the remaining two team members.
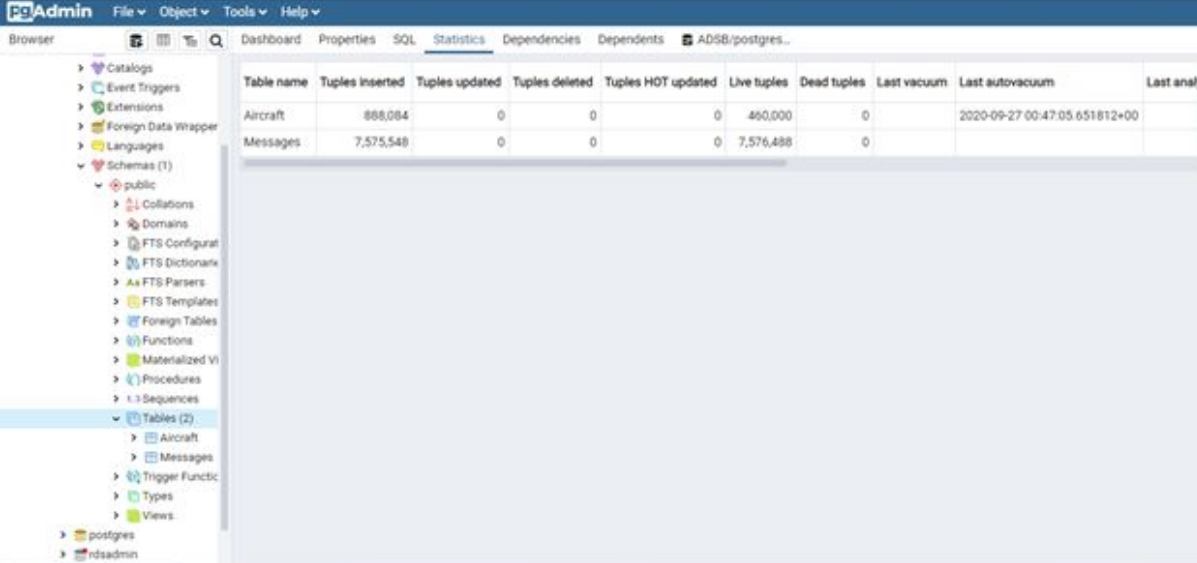
Observations and comparisons about storage space on AWS:

The exact storage remaining for all the team members on AWS after performing these tasks represented values in the range of 16200 - 16600 MB. These are specified in the table below.

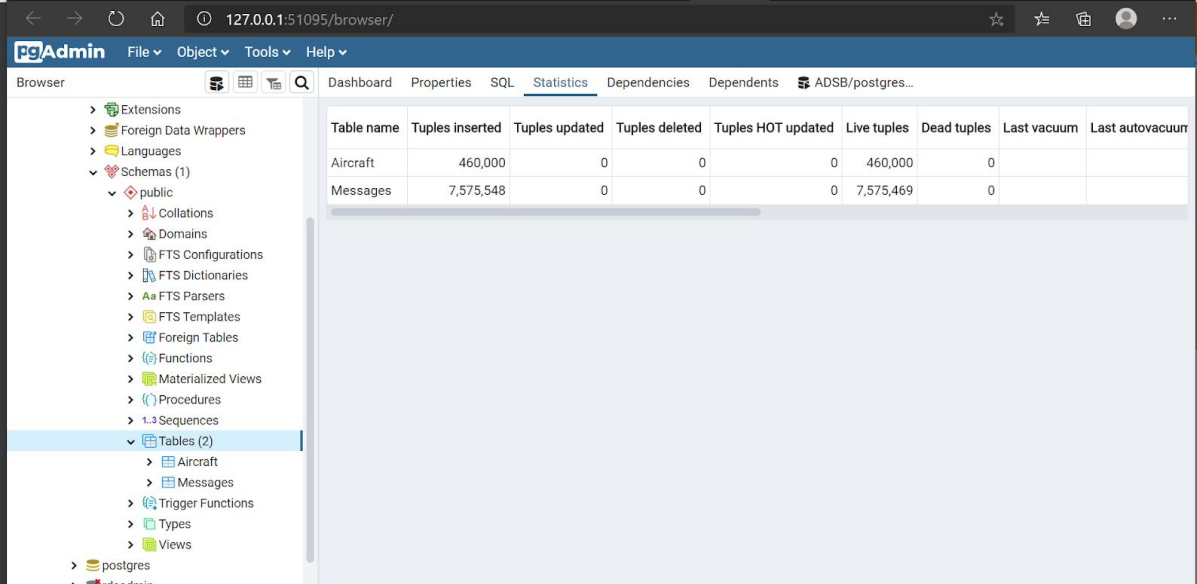| Team Member	Shubhangi	Srishti	Tanya	Varad
Remaining Storage Space	16550.47 MB	16549.86 MB	16464.28 MB	16212.34 MB

The values mentioned as remaining are out of the total available storage space of 20,000 MB in the AWS RDS instance. Thus, the space utilized is dependent on the various computations performed. Also, there is a lot of free space left for each one of us despite having imported three huge files and implementing basic queries on them.
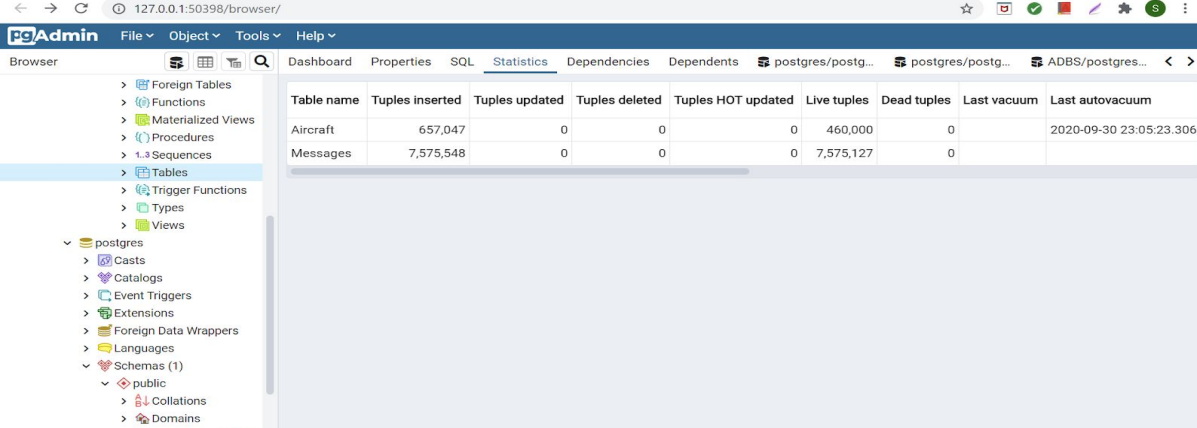
Tables imported and Statistics

Table name	Tuples inserted	Tuples updated	Tuples deleted	Tuples HOT updated	Live tuples	Dead tuples	Last vacuum	Last autovacuum	Last anal
Aircraft	888,084	0	0	0	460,000	0		2020-09-27 00:47:05.651812+00	
Messages	7,575,548	0	0	0	7,576,488	0			

Table name	Tuples inserted	Tuples updated	Tuples deleted	Tuples HOT updated	Live tuples	Dead tuples	Last vacuum	Last autovacuum
Aircraft	460,000	0	0	0	460,000	0		
Messages	7,575,548	0	0	0	7,575,469	0		

Table name	Tuples inserted	Tuples updated	Tuples deleted	Tuples HOT updated	Live tuples	Dead tuples	Last vacuum	Last autovacuum
Aircraft	657,047	0	0	0	460,000	0		2020-09-30 23:05:23.306
Messages	7,575,548	0	0	0	7,575,127	0		

Evidence of implementation of basic SQL Queries

1) Query for finding all records from the table Aircraft for which 'icaoaircrafttype' is L1P

2) Query for displaying the 'icao24', 'manufcturername', 'model' and 'DateLogged' after performing inner join on the Aircraft and Messages tables