1. **Write a query to get data having length of Rna structures more than 12 with them being added after 2008.**

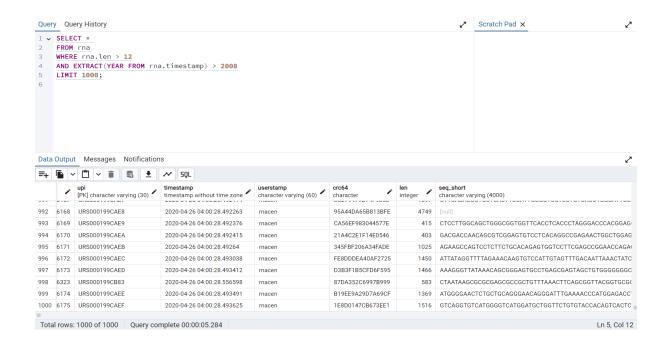SELECT *

FROM rna

WHERE rna.len >12
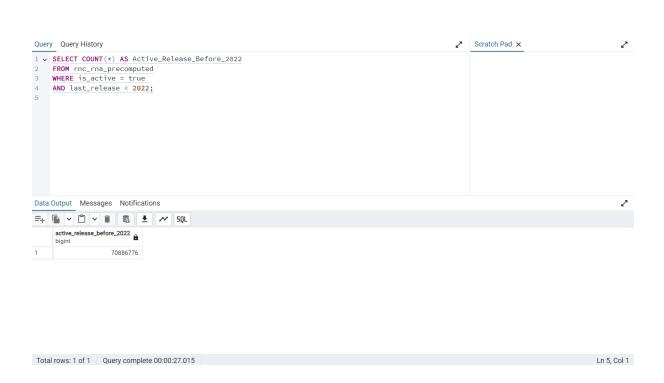
AND EXTRACT (YEAR FROM rna. timestamp) > 2008

LIMIT 1000;

Query   Query History   Scratch Pad ✕

```
1  v  SELECT *
2     FROM rna
3     WHERE rna.len > 12
4     AND EXTRACT(YEAR FROM rna.timestamp) > 2008
5     LIMIT 1000;
6
```

Data Output   Messages   Notifications

	upi [PK] character varying (30)	timestamp timestamp without time zone	userstamp character varying (60)	crc64 character	len integer	seq_short character varying (4000)
992	6168	URS000199CAE8	2020-04-26 04:00:28.492263	rnacen	95A44DA65B813BFE	4749	[null]
993	6169	URS000199CAE9	2020-04-26 04:00:28.492376	rnacen	CA56EF983044577E	415	CTCCTTGGCAGCTGGGCGGTGGTTCACCTCACCCTAGGGACCCACGGAG
994	6170	URS000199CAEA	2020-04-26 04:00:28.492415	rnacen	21A4C2E1F14E0546	403	GACGACCAACAGCGTCGGAGTGTCCTCACAGGCCGAGAACTGGCTGGAG
995	6171	URS000199CAEB	2020-04-26 04:00:28.49264	rnacen	345FBF206A34FADE	1025	AGAAGCCAGTCCTCTTCTGCACAGAGTGGTCCTTCGAGCCGGAACCAGA
996	6172	URS000199CAEC	2020-04-26 04:00:28.493038	rnacen	FE8DDDEA40AF2725	1450	ATTATAGGTTTTAGAAACAAGTGTCCATTGTAGTTTGACAATTAAACTATC
997	6173	URS000199CAED	2020-04-26 04:00:28.493412	rnacen	D3B3F1B5CFD6F595	1466	AAAGGGTTATAAACAGCGGGAGTGCCTGAGCGAGTAGCTGTGGGGGGGC
998	6323	URS000199CB83	2020-04-26 04:00:28.556598	rnacen	87DA352C6997B999	583	CTAATAAGCGCGCGAGCGCCGCTGTTTAAACTTCAGCGGTTACGGTGCG(
999	6174	URS000199CAEE	2020-04-26 04:00:28.493491	rnacen	B19EE9A29D7A69CF	1369	ATGGGGAACTCTGCTGCAGGGAACAGGGATTTGAAAACCCATGGAGACC
1000	6175	URS000199CAEF	2020-04-26 04:00:28.493625	rnacen	1E8D0147CB673EE1	1516	GTCAGGTGTCATGGGGTCATGGATGCTGGTTCTGTGTACCACAGTCACTC

Total rows: 1000 of 1000   Query complete 00:00:05.284   Ln 5, Col 12

2. How many pre computed RNA are present that are still active and got their last release update before 2022

SELECT COUNT (*) AS Active_Release_Before_2022

FROM rnc_rna_precomputed

WHERE is_active = true

AND last_release <2022;

Query   Query History   ↗   Scratch Pad ✕   ↗

```
1 ∨  SELECT COUNT(*) AS Active_Release_Before_2022
2    FROM rnc_rna_precomputed
3    WHERE is_active = true
4    AND last_release < 2022;
5
```

Data Output   Messages   Notifications   ↗

active_release_before_2022 🔒 bigint
70886776

Total rows: 1 of 1   Query complete 00:00:27.015   Ln 5, Col 1

3. **How many total pre computed RNA records for snoRNA and tRNA were recorded in 2011, 2016, 2014, and 2020.**

SELECT EXTRACT (YEAR FROM update_date) AS year, rna_type, COUNT (*)

FROM rnc_rna_precomputed

WHERE rna_type IN('snoRNA','tRNA')

AND EXTRACT (YEAR FROM update_date) IN (2011, 2014, 2016, 2020)

GROUP BY year, rna_type

ORDER BY year, rna_type

LIMIT 1000;

Query	Query History	Scratch Pad X

```
1 v  SELECT EXTRACT(YEAR FROM update_date) AS year, rna_type, COUNT(*)
2    FROM rnc_rna_precomputed
3    WHERE rna_type IN ('snoRNA', 'tRNA')
4    AND EXTRACT(YEAR FROM update_date) IN (2011, 2014, 2016, 2020)
5    GROUP BY year, rna_type
6    ORDER BY year, rna_type
7    LIMIT 1000;
```

Data Output   Messages   Notifications

	year double precision	rna_type character varying (500)	count bigint
1	2020	snoRNA	70872
2	2020	tRNA	844505

4. Can you give me the names of all databases built for RNA with minimum length other than 100, 200, 300, 400, and 15?

SELECT display_name

FROM rnc_database

WHERE min_length NOT IN (100,200,300,400,15)

LIMIT 1000;

5. Can you get complete 500 records of sequences for active regions and name your column as myregions in which you are getting the region name column value. Then tell me what different chromosomes with exon_count we have for regions including centre, east and north using the name you set for your column.

SELECT region_name AS myregions

FROM rnc_sequence_regions

　　WHERE region_name IS NOT NULL

LIMIT 500;

SELECT DISTINCT chromosome, exon_count

FROM rnc_sequence_regions

WHERE region_name IN ('center', 'east', 'north')

LIMIT 1000;

Query   Query History

```
1 ∨  SELECT region_name AS myregions
2    FROM rnc_sequence_regions
3        WHERE region_name IS NOT NULL
4    LIMIT 500;
5 ∨  SELECT DISTINCT chromosome, exon_count
6    FROM rnc_sequence_regions
7    WHERE region_name IN ('center', 'east', 'north')
8    LIMIT 1000;
```