

BYTEWISE DATAENGINEERING FELLOWSHIP

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TASK 02

Query for RNA structures added after 2008 with length > 12:

```
SELECT *  
FROM RNA  
WHERE rna.len > 12 AND added_date > '2008-01-01';
```

Count of active precomputed RNAs with last release update before 2022:

```
SELECT COUNT(*)  
FROM rnc_rna_precomputed  
WHERE is_active = 1  
AND updated_date < '2022-01-01';
```

Total precomputed RNA records for snoRNA and tRNA in specific years:

```
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;
```

Names of databases built for RNA with specific minimum lengths:

```
SELECT display_name  
FROM rnc_database  
WHERE min_length NOT IN (100, 200, 300, 400, 15);
```

500 records of sequences for active regions with custom column name 'myregions':

```
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
```