

96_DNA Pattern Recognition Medium - Solution

Source - <https://leetcode.com/problems/dna-pattern-recognition/description/>

Running Notes:

Write a solution to identify `sample_id` with the following patterns:

- Sequences that **start** with **ATG** (a common **start codon**)
- Sequences that **end** with either **TAA**, **TAG**, or **TGA** (**stop codons**)
- Sequences containing the motif **ATAT** (a simple repeated pattern)
- Sequences that have **at least 3 consecutive G** (like **GGG** or **GGGG**)

Return the result table ordered by `sample_id` in **ascending** order.

```
-- Write your PostgreSQL query statement below
SELECT *,
CASE
WHEN dna_sequence LIKE 'ATG%' THEN 1
ELSE 0
END AS has_start,
CASE
WHEN dna_sequence LIKE '%TAA' OR dna_sequence LIKE '%TAG' OR dna_sequ
ELSE 0
END AS has_stop,
CASE
WHEN dna_sequence LIKE '%ATAT%' THEN 1
ELSE 0
END AS has_atat,
CASE
WHEN dna_sequence LIKE '%GGG%' THEN 1
ELSE 0
```

```
END AS has_ggg  
FROM Samples
```

Here's the syntax for **LIKE** and if we have multiple conditions (for point number 2 follow this syntax)

```
SELECT ...  
FROM ...  
WHERE column LIKE ...  
AND/OR column NOT LIKE ...;
```

Written By,
Harshee Pitroda