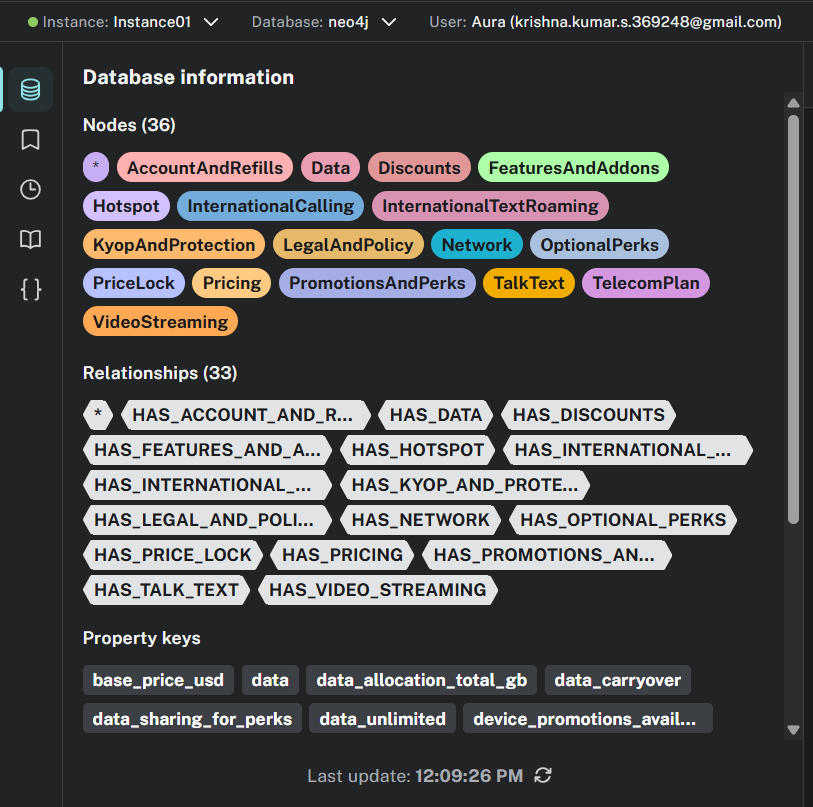
# Pydantic Schema to Neo4j & Extraction performance

When having large number of keys and values!

## Neo4j Database Schema:



## Query and Response

### Scenario 1

Query:

/\* all speed info \*/

MATCH (t:TelecomPlan)-[HAS\_NETWORK]->(n:Network)

RETURN t.plan\_name, n.network\_speed\_claim\_source, n.network\_types\_compatible, n.network\_types\_used, n.network\_variability\_disclaimer, n.network\_4glte\_device\_required, n.network\_5g\_requirements, n.network\_5g\_uwb\_included, n.network\_5g\_uwb\_speed\_comparison

Response:

| t.plan\_name | n.network\_speed\_claim\_source | n.network\_types\_compatible | n.network\_types\_used | n.network\_variability\_disclaimer | n.network\_4glte\_device\_required | n.network\_5g\_requirements | n.network\_5g\_uwb\_included | n.network\_5g\_uwb\_speed\_comparison |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Unlimited Ultimate | OoklaÂ® Speedtest IntelligenceÂ® data from Q1-Q2 2024 | null | 5G, 4G LTE | null | null | null | yes | 4X faster than Verizon's regular 5G in the U.S. |
| $40 Unlimited Talk and Text plan | null | 4G LTE and 5G Network | null | Actual availability, coverage, and speed may vary. | A 4G LTE capable device is required for 4G LTE network access. | Access to 5G requires a 5G-capable device in a 5G coverage area | null | null |
| Platinum Unlimited | null | null | LTE | In times of congestion, your data may be temporarily slower than other traffic. | null | Access to 5G requires a 5G-capable device in a 5G coverage area. | null | null |

### Scenario 2

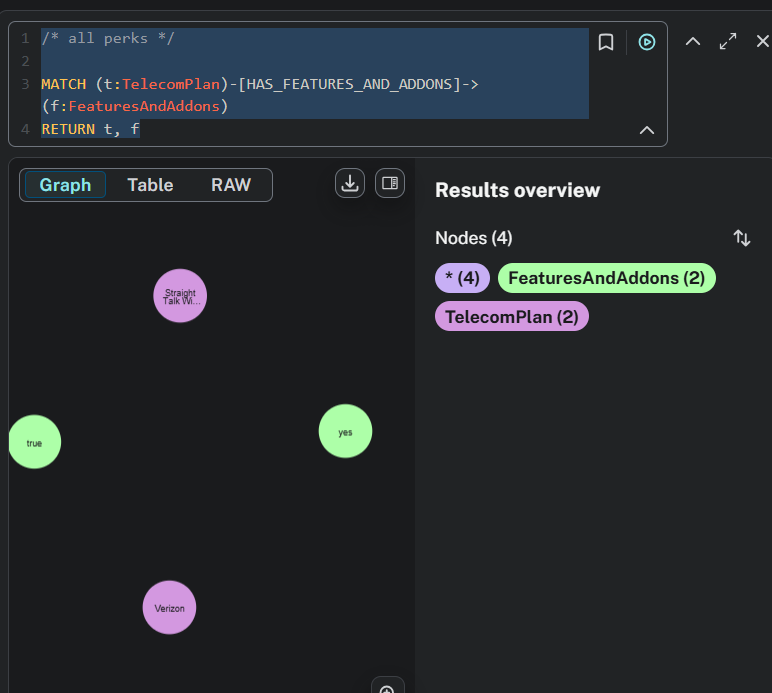
Query:

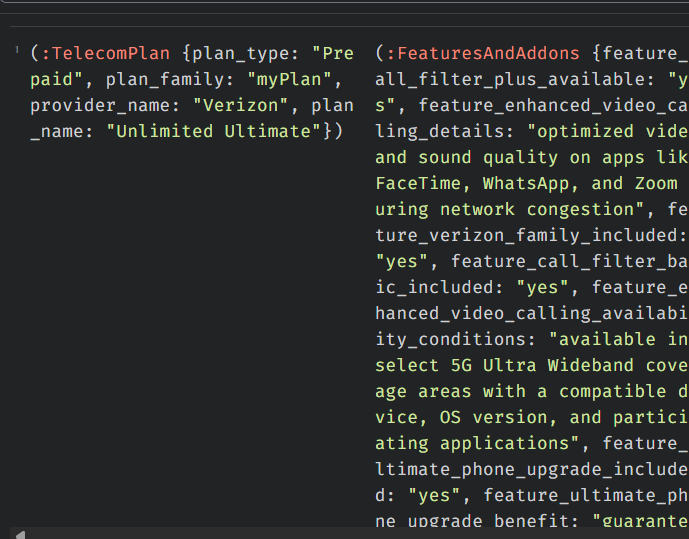
/\* all perks \*/

MATCH (t:TelecomPlan)-[HAS\_FEATURES\_AND\_ADDONS]->(f:FeaturesAndAddons)

RETURN t, f

Response:





| **provider\_name** | **plan\_name** | **plan\_type** | **plan\_family** | **feature / perk** | **value** |
| --- | --- | --- | --- | --- | --- |
| Verizon | Unlimited Ultimate | Prepaid | myPlan | feature\_call\_filter\_plus\_available | yes |
| Verizon | Unlimited Ultimate | Prepaid | myPlan | feature\_enhanced\_video\_calling\_details | optimized video and sound quality on apps like FaceTime, WhatsApp, and Zoom during network congestion |
| Verizon | Unlimited Ultimate | Prepaid | myPlan | feature\_verizon\_family\_included | yes |
| Verizon | Unlimited Ultimate | Prepaid | myPlan | feature\_call\_filter\_basic\_included | yes |
| Verizon | Unlimited Ultimate | Prepaid | myPlan | feature\_enhanced\_video\_calling\_availability\_conditions | available in select 5G Ultra Wideband coverage areas with a compatible device, OS version, and participating applications |
| Verizon | Unlimited Ultimate | Prepaid | myPlan | feature\_ultimate\_phone\_upgrade\_included | yes |
| Verizon | Unlimited Ultimate | Prepaid | myPlan | feature\_ultimate\_phone\_upgrade\_benefit | guarantees the best phone deals for new and existing customers |
| Straight Talk Wireless | Platinum Unlimited | — | — | perk\_walmartplus\_included | TRUE |
| Straight Talk Wireless | Platinum Unlimited | — | — | perk\_walmartplus\_benefits\_list\_string | Free delivery ($35 order minimum, restrictions apply). Free shipping (excludes most Marketplace items, freight & certain location surcharges). Paramount+ Essential plan only, separate registration required. Fuel discount (varies by location & station, subject to change). |

### Scenario 3

Query:

/\* all international details \*/

MATCH (t:TelecomPlan)-[HAS\_INTERNATIONAL\_CALLING]->(ic:InternationalCalling)

MATCH (t)-[HAS\_INTERNATIONAL\_ROAMING]->(ir:InternationalTextRoaming)

RETURN t.plan\_name, ic.international\_call

Response:

