|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ***Shape*** | ***Cypher QL genenetor*** | ***CALL db.schema.visualization();*** | ***match (n)-[r]-> (m)***  ***return n,r,m;*** | ***Description*** |
| 1️🌿 Fractal-Like Schema (Recursive Connections) | WITH range(1, 5) AS levels UNWIND levels AS level MERGE (n:Node {id: level})  WITH collect(n) AS nodes UNWIND nodes AS parent  WITH parent FOREACH(x IN range(1, 2) | MERGE (child:Node {id: parent.id \* 10 + x}) MERGE (parent)-[:BRANCHES\_TO]->(child) ); |  |  | This schema **recursively connects nodes** in a branching structure (like a fractal or tree).  We get a **tree-like graph** where each **node connects to the next**. |
| 2️ 🌀 Spiral Schema (Recursive Circular Connection) | // Create spiral nodes with (x, y) coords  WITH range(0, 50) AS steps  UNWIND steps AS i  WITH i, toFloat(i) AS fi  // Define r and theta after we have 'fi'  WITH i, fi, (fi \* 0.75) AS r, (fi \* 0.6) AS theta  // Now use r and theta to compute x, y  WITH i, r, theta,       (r \* cos(theta)) AS x,       (r \* sin(theta)) AS y  CREATE (n:Spiral {id: i, x: x, y: y});  // Connect each node to the next  WITH range(0, 49) AS idx  UNWIND idx AS i  MATCH (current:Spiral {id: i}), (next:Spiral {id: i+1})  MERGE (current)-[:LOOPS\_INTO]->(next);  // Close the loop (last node → first node)  MATCH (end:Spiral {id: 11}), (start:Spiral {id: 0})  MERGE (end)-[:LOOPS\_INTO]->(start);  RETURN "Spiral shape created!"; |  |  | This schema **creates a spiral effect** by connecting nodes in a loop with increasing depth. |
| 3️🔥 Radial Starburst Schema (Expanding Hub Network) | CREATE (center:Core {name: "Center"});  WITH range(1, 20) AS layers  UNWIND layers AS layer  CREATE (n:Layer {id: layer})  MERGE (center)-[:EXPANDS]->(n);  WITH range(1, 20) AS layers  UNWIND layers AS layer  MATCH (parent:Layer {id: layer})  WITH parent, layer  CREATE (child:SubLayer {id: layer + 10})  MERGE (parent)-[:BRANCHES\_TO]->(child); |  |  | Creates a **hub-and-spoke structure** where nodes **radiate outward**.  Looks like **a starburst or sun-like explosion of nodes**. |
| 4️**🔗** Hyperconnected Complex Web (Random Graph)  This schema **randomly connects nodes to each other**, resulting in an intricate **chaotic network**. | WITH range(1, 20) AS nodes  UNWIND nodes AS i  MERGE (n:Web {id: i});  WITH range(1, 40) AS rels  UNWIND rels AS i  MATCH (a:Web), (b:Web)  WHERE a <> b AND rand() < 0.2  MERGE (a)-[:RANDOM\_LINK]->(b); |  |  | **Nodes are randomly connected**, forming a **complex mesh**.  Similar to **neural networks or social graphs**. |
| 5 🌍 World-Like Schema (Geographical Network) | // 1) CREATE the Planet  CREATE (earth:Planet {name: "Earth"});  // 2) CREATE Continents and LINK them to Earth  WITH ["North America", "Europe", "Asia", "Africa", "South America"] AS continents  UNWIND continents AS continent  CREATE (c:Continent {name: continent})  WITH c  MATCH (earth:Planet {name: "Earth"})  MERGE (earth)-[:HAS\_REGION]->(c);  // 3) CREATE Countries and LINK them to the correct Continent  WITH ["USA", "Germany", "China", "Egypt", "Brazil"] AS countries  UNWIND countries AS country  CREATE (co:Country {name: country})  WITH co, country  MATCH (earth:Planet {name: "Earth"})-[:HAS\_REGION]->(cont:Continent)  WHERE      (country CONTAINS "USA" AND cont.name = "North America") OR      (country CONTAINS "Germany" AND cont.name = "Europe") OR      (country CONTAINS "China" AND cont.name = "Asia") OR      (country CONTAINS "Egypt" AND cont.name = "Africa") OR      (country CONTAINS "Brazil" AND cont.name = "South America")  MERGE (cont)-[:CONTAINS]->(co);  RETURN "World-like schema created!"; |  |  | Mimics **continents and countries**, creating a **world-like shape**.  Can be **expanded** to connect **cities, regions, or transport routes**. |