Algorithm Community Detection-Modularity Optimization

- Setting parameters

File   Edit   View   Window   Help   Developer

```
 1   :param limit⟹( 100);
 2   :param config⟹({
 3   nodeProjection: '*',
 4   relationshipProjection: {
 5   relType: {
 6   type: 'brand',
 7   orientation: 'UNDIRECTED',
 8   properties: {}
 9   }
10   },
11   relationshipWeightProperty: null,
12   seedProperty: '',
13   maxIterations: 10,
14   tolerance: 0.0001
15   });
16   :param communityNodeLimit⟹( 100);
```

```
 1   :param limit⟹( 100);
 2   :param config⟹({
 3   nodeProjection: '*',
 4   relationshipProjection: {
 5   relType: {
 6   type: 'brand',
 7   orientation: 'UNDIRECTED',
 8   properties: {}
 9   }
10   },
11   relationshipWeightProperty: null,
12   seedProperty: '',
```

```
:param limit⟹( 100)$ :param limit⟹( 100)                                                                    ☑

:param config⟹({ nodeProjection: '*', relationshipProjection: { relType: { type: 'brand', orientati…         ☑

   SUCCESS

   Command was successfully executed

:param communityNodeLimit⟹( 100)$ :param communityNodeLimit⟹( 100)                                           ☑
```

- Anonymous Graph


```
neo4j@bolt://localhost:7687/neo4j - Neo4j Browser
File   Edit   View   Window   Help   Developer
1  CALL gds.beta.modularityOptimization.stream($config) YIELD nodeId, communityId AS community
2  WITH gds.util.asNode(nodeId) AS node, community
3  WITH collect(node) AS allNodes, community
4  RETURN community, allNodes[0..$communityNodeLimit] AS nodes, size(allNodes) AS size
5  ORDER BY size DESC
6  LIMIT toInteger($limit);
```
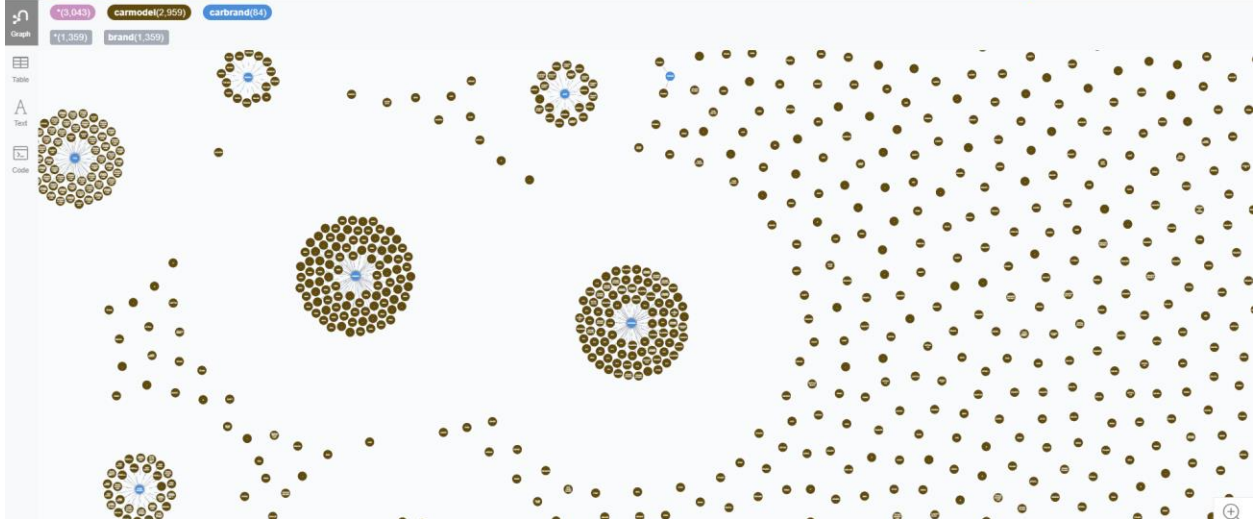
```
1  CALL gds.beta.modularityOptimization.stream($config) YIELD nodeId, communityId AS community
2  WITH gds.util.asNode(nodeId) AS node, community
3  WITH collect(node) AS allNodes, community
4  RETURN community, allNodes[0..$communityNodeLimit] AS nodes, size(allNodes) AS size
5  ORDER BY size DESC
6  LIMIT toInteger($limit);
```

Graph
Table
Text
Code

"community"	"nodes"	"size"
125744	[{"CarModelCode":"VIGO","CarBrandCode":"TOYOTA"},{"CarModelCode":"PRIUS","CarBrandCode":"TOYOTA"},{"CarModelCode":"VIOS","CarBrandCode":"TOYOTA"},{"CarModelCode":"REVO","CarBrandCode":"TOYOTA"},{"CarModelCode":"COMMUTER","CarBrandCode":"TOYOTA"},{"CarModelCode":"VIOS","CarBrandCode":"TOYOTA"},{"CarModelCode":"COROLLA","CarBrandCode":"TOYOTA"},{"CarModelCode":"ALTIS","CarBrandCode":"TOYOTA"},{"CarModelCode":"FORTUNER","CarBrandCode":"TOYOTA"},{"CarModelCode":"ALTIS","CarBrandCode":"TOYOTA"},{"CarModelCode":"COROLLA HITORQ 1.5 GXI AT","CarBrandCode":"TOYOTA"},{"CarModelCode":"COROLLA1.6GLI/AT","CarBrandCode":"TOYOTA"},{"CarModelCode":"VIGO","CarBrandCode":"TOYOTA"},{"CarModelCode":"COMMUTER","CarBrandCode":"TOYOTA"},{"CarModelCode":"VIGO","CarBrandCode":"TOYOTA"},{"CarModelCode":"YARIS","CarBrandCode":"TOYOTA"},{"CarModelCode":"VIGO","CarBrandCode":"TOYOTA"},{"CarModelCode":"VIGO","CarBrandCode":"TOYOTA"},{"CarModelCode":"VIOS","CarBrandCode":"TOYOTA"},{"CarModelCode":"VIGO","CarBrandCode":"TOYOTA"},{"CarModelCode":"REVO","CarBrandCode":"TOYOTA"},{"CarModelCode":"VIOS","CarBrandCode":"TOYOTA"},{"CarModelCode":"CAMRY 2.0","CarBrandCode":"TOYOTA"},{"CarModelCode":"REVO DOUBLE CAB","CarBrandCode":"TOYOTA"},{"CarModelCode":"HIACE","CarBrandCode":"TOYOTA"},{"CarModelCode":"HILUX Diesel","CarBrandCode":"TOYOTA"},{"CarModelCode":"YARIS","CarBrandCode":"TOYOTA"},{"CarModelCode":"VIGO","CarBrandCode":"TOYOTA"},{"CarModelCode":"VIOS","CarBrandCode":"TOYOTA"},{"CarModelCode":"VIOS","CarBrandCode":"TOYOTA"},{"CarModelCode":"VIGO","CarBrandCode":"TOYOTA"},{"CarModelCode":"VIGO","CarBrandCode":"TOYOTA"},{"CarModelCode":"PRIUS","CarBrandCode":"TOYOTA"},{"CarModelCode":"SOLUNA","CarBrandCode":"TOYOTA"},{"CarModelCode":"SOLUNA 1.5 XLI AT","CarBrandCode":"TOYOTA"},{"CarModelCode":"VIGO","CarBrandCode":"TOYOTA"},{"CarModelCode":"ALTIS","CarBrandCode":"TOYOTA"},{"CarModelCode":"CROWN REGAL 2.8","CarBrandCode":"TOYOTA"},{"CarModelCode":"VIGO","CarBrandCode":"TOYOTA"},{"CarModelCode":"VIGO DOUBLE CAB","CarBrandCode":"TOYOTA"},{"CarModelCode":"VIGO","CarBrandCode":"TOYOTA"},{"CarModelCode":"COMMUTER","CarBrandCode":"TOYOTA"},{"CarModelCode":"COMMUTER","CarBrandCode":"TOYOTA"},{"CarModelCode":"REVO","CarBrandCode":"TOYOTA"},{"CarModelCode":"VIGO","CarBrandCode":"TOYOTA"},{"CarModelCode":"VIGO","CarBrandCode":"TOYOTA"},{"CarModelCode":"COMMUTER","CarBrandCode":"TOYOTA"},{"CarModelCode":"COMMUTER","CarBrandCode":"TOYOTA"},{"CarModelCode":"COMMUTER","CarBrandCode":"TOYOTA"},{"CarModelCode":"CAMRY 2.0","CarBrandCode":"TOYOTA"},{"CarModelCode":"COMMUTER","CarBrandCode":"TOYOTA"},{"CarModelCode":"HIACE","CarBrandCode":"TOYOTA"},{"CarModelCo	15592

```
1  CALL gds.beta.modularityOptimization.stream($config) YIELD nodeId, communityId AS community
2  WITH gds.util.asNode(nodeId) AS node, community
3  WITH collect(node) AS allNodes, community
4  RETURN community, allNodes[0..$communityNodeLimit] AS nodes, size(allNodes) AS size
5  ORDER BY size DESC
6  LIMIT toInteger($limit);
```

Graph
Table
Text
Code

	...AMVIBR","CarBrandCode":"TOYOTA"},{"CarModelCode":"VIOS","CarBrandCode":"TOYOTA"},{"CarModelCode":"INNOVA","CarBrandCode":"TOYOTA"},{"CarModelCode":"HIACE","CarBrandCode":"TOYOTA"}]	
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community	nodes	size
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125746	[{"CarModelCode":"DMAX,"CarBrandCode":ISUZU},{"CarModelCode":"CAB4 2.5,	13007
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125743	[{"CarModelCode":"FRONTIER,"CarBrandCode":NISSAN},{"CarModelCode":"FRO	3234
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125761	[{"CarModelCode":"BT-50,"CarBrandCode":MAZDA},{"CarModelCode":2,"CarBr	1268
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