PolicyInsight Knowledge Graph Schema Design

Policy Knowledge Graph Entity types:

1. Policy

2. PolicyMaker

3. PolicyArea

4. PolicyStakeholder

1. Policy entity fields:

Policy(policy\_id STRING, policy\_title STRING, policy\_description STRING, policy\_state STRING, policy\_legislation\_type STRING, policy\_content STRING, policy\_rules STRING, policy\_summary STRING, policy\_obligations STRING, policy\_risks STRING, policy\_issue\_date DATE, policy\_approved\_date DATE, policy\_effective\_date DATE)

where policy\_state is {

draft,

proposed,

effective,

amended\_and\_effective,

amended,

repealed,

archived

}

and policy\_legislation\_type is {

bills,

statutes,

regulations,

ordinances,

directives,

resolutions

}

1. PolicyMaker entity fields:

PolicyMaker(policy\_maker\_id STRING, policy\_maker\_name STRING, policy\_maker\_description STRING, policy\_maker\_type STRING, policy\_jurisdiction STRING)

where policy\_maker\_type is {

international,

continental,

multinational,

national,

state/provincial,

municipal,

regional

}

1. PolicyArea entity fields:

PolicyArea(policy\_area\_id STRING, policy\_area\_name STRING, policy\_area\_description STRING)

where policy\_area\_name is {

Healthcare,

Environmental,

Energy,

Climate Change,

Education,

Economic,

Fiscal,

Monetary,

Trade,

Immigration,

Social,

Welfare,

Housing,

Urban Development,

Transportation,

Infrastructure,

Technology,

Innovation,

Cybersecurity,

Privacy,

...

}

1. PolicyStakeholder entity fields:

PolicyStakeholder(policy\_stakeholder\_id STRING, policy\_stakeholder\_name STRING, policy\_stakeholder\_description STRING, policy\_stakeholder\_type STRING)

where policy\_stakeholder\_type is {

resident,

group,

organization

}

Policy Knowledge Graph Relationship types:

1. PolicyAreaMapping(FROM Policy TO PolicyArea, mapping\_strenght STRING)
2. PolicyStakeholderAreaMapping(FROM PolicyStakeholder TO PolicyArea, mapping\_strenght STRING)
3. PolicyMakerToPolicyMapping(FROM PolicyMaker TO Policy)

where mapping\_strenght is {

LOW,

MEDIUM,

HIGH

}