



### migrate.py

**def Entity\_inner(\$inputs, query\_type):**

- creates a unique Graql query for an entity and its attributes
- query\_type: 'insert'/'match'/' ' (*empty*)
- can be used for all types of query

**return** graql\_insert\_query

*Example:*

Scenario\_inner(idx, query\_type = 'insert')

insert \$scn isa sound-propagation-scenario, has scenario\_id 0;

**def Entity(data):**

- creates a set of unique entities of single type i.e. sound-propagation-scenario
- uses inner function with 'insert' query
- loops over required 'data' files to obtain \$inputs (attribute values)
- uses logical conditions to select meaningful values for a scenario/data instance
- `graql_queries.append(graql_insert_query)` creates a list of queries that will be sent to `grakn session.transaction().write()` as transaction one at a time

**return** graql\_queries

*Example:*

Source(data)

Key: QueryList ;Type: list ; Size: 9031 ;

['insert \$scn isa sound sound-propagation-scenario , has scenario\_id 0; ...

'insert \$scn isa sound sound-propagation-scenario , has scenario\_id 9030]

**def rel\_Relation(data):**

- creates a unique relation using inner function with 'match' and ' ' queries
- loops over required 'data' files to match entities and their attributes
- based on logical conditions creates different types of the same relation, i.e. rel. bathymetry between single \$bs1 or relation triplet \$bsloped depending if `slope == 0`
- same as Entity(data) it creates a list of queries for a single node

**return** graql\_queries

*Example:*

match \$scn isa sound-propagation-scenario, has scenario\_id 0; \$src isa source, has depth 15; \$bs1 isa bottom-segment-1, has bottom\_type 1, has depth 50, has length 1238.5; insert \$srcp(define\_src: \$src, defined\_by\_src: \$scn, bathy\_src\_position: \$bs1) isa src-position;

query:  
scenario\_id

keyspace

result query:  
scn\_variables  
num\_rays