Graql Cheatsheet

This cheatsheet is a quick reference guide for those already familiar with Graql. For further information and additional documentation, please see the Graql section on our developer portal at **tinyurl.com/graqldocs**.

Variables
Variables start with $ followed by alphanumeric characters.

Queries

match

A `match` query will search the graph for any subgraphs that match the given pattern.

match [pattern; ...] [modifiers]

```
match $x isa person;
```

```
# Match several patterns together
match $x isa person, has firstname "John";
```

Modifiers

```
# Select particular variables from the query
match $x isa person, has firstname $f, has surname $s;
select $f, $s;

# Skip some results & limit the number returned
match $x isa person, has identifier $id;
limit 10; offset 5;
```

```
# De-duplicate the results of a query
match $x isa person, has firstname $y; select $y;
distinct;
```

```
# Order by variable [ asc | desc ]
match $x isa person, has surname $n;
order by $n desc;
```

ask
An `ask` query will return whether the given match query has any results.

[match] ask

```
match $x isa person, has name 'James Cameron';
ask;
```

insert
An insert query will insert the specified variable patterns into the graph.

insert [pattern ; ...]

```
insert has identifier "Titus Groan" isa person;
```

If a match query is provided, the query will insert the given variable patterns for every result of the match query.

```
match $p has identifier "Minnie Downs";
insert $p has middlename "Mathilda";

match $b has name "Tim Burton";
$m isa movie; (director: $b, $m);
match $d has name "Johnny Depp";
# Insert a relation
insert (actor: $d, production-with-cast: $m) isa
has-cast;
```