# Groonga query specification

Hiroshi Hatake

Technical information sharing seminar

# Introduction

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- Full-text search engine based on inverted index
- Various tokenizers
- Sharable storage and read lock-free
- Basic funcitonality is privided from libgroonga
- Query syntax to do full-text search

# Query syntax – Motivation

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- groonga.org documents is well-documented for users but for library developers.

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- groonga.org documents is well-documented for users but for library developers.
- So, this slide describes Groonga query structures for query builder developers.

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- It requires mandatory command name parameter(s) (e.g. select, load... etc.)
- It requires mandatory parameter(s) if they exist
- It may require optional parameter(s) if they can specify
- It may append additional parameter(s) if they are defined (e.g. request_id and request_timeout like parameters)

# Groonga query structure

## Query structure

Groonga query has multiple parts.

| part | content | mandatory? |
|---|---|---|
| command | command name | yes |
| mandatory parameter(s) | pairs of keys and value | yes |
| optional parameter(s) | pairs of keys and values | no |
| additional parameter(s) | pairs of keys and values | no |

# Groonga query basics

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- **non-named query** MUST keep query order
- **named query** need not keep query order

# Groonga query basics –example

> ## Query order
> Groonga query MUST keep query parameters order except for using **named query**.

| query type | content | valid/invalid |
|---|---|---|
| non-named query | table_create Site TABLE_HASH_KEY ShortText | valid |
| non-named query | table_create Site ShortText TABLE_HASH_KEY | invalid |
| named query | table_create --flags TABLE_HASH_KEY --key_type ShortText --name Site | valid |
| named query | table_create --key_type ShortText --flags TABLE_HASH_KEY --name Site | valid |

Any questions?