Index Strategies

JP Toto

@jptoto | http://jptoto.jp

Indexes are Stored in Shards

NODE 01

I01
S01

I01
R02

NODE 02

I01
R01

I01
S02

NODE 03

I01
R01

I01
R02
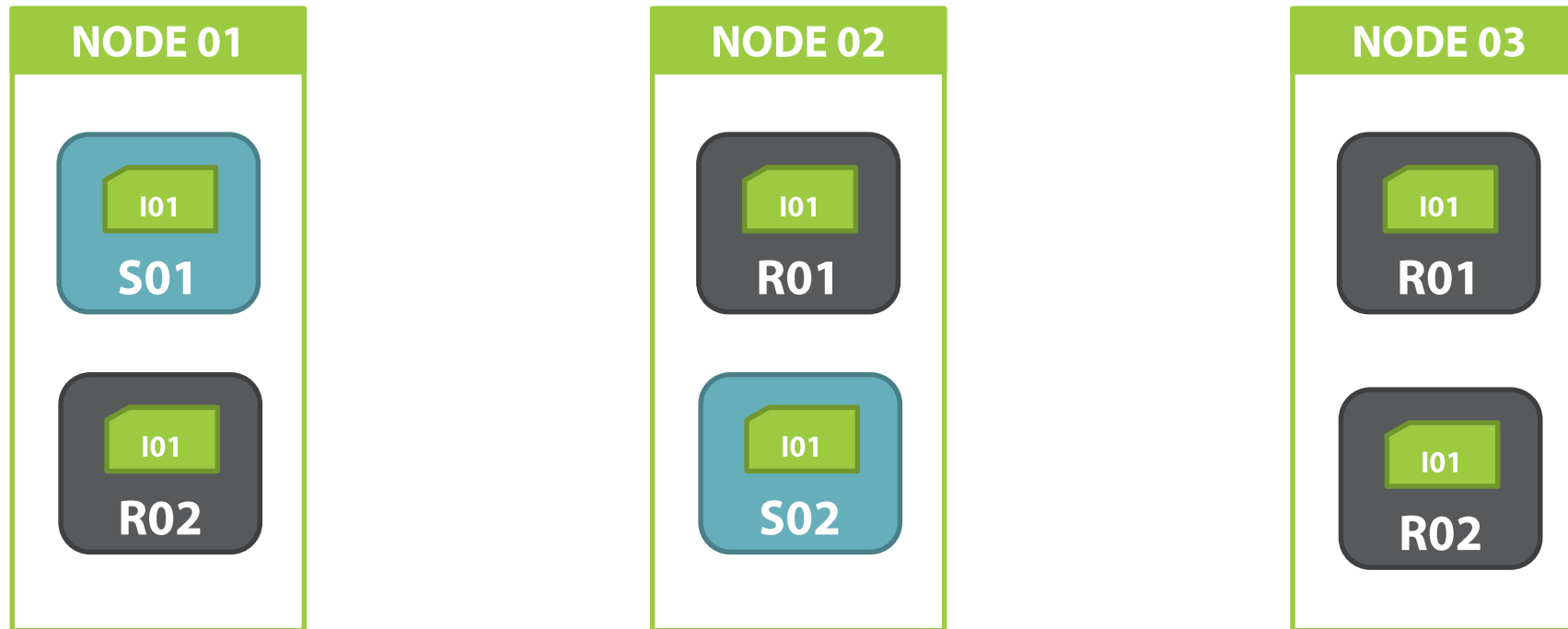
How do we actually create indexes?

There's an http API for that!

Creating an Index

POST http://es-client-01:9200/knowledge_base

```json
{
    "settings": {
        "index": {
            "number_of_shards": 5,
            "number_of_replicas": 1
        }
    },
    "mappings": {
        "kb_article": {
            "properties": {
                "article_name": {
                    "type": "string"
                },
                "article_text": {
                    "type": "string"
                },
                "article_date": {
                    "type": "date"
                }
            }
        }
    }
}
```

Shard Size Considerations

I01

SHARD 01

Talk to data owners to gauge document size

Perform load tests on sample data

Large shards take longer to recreate

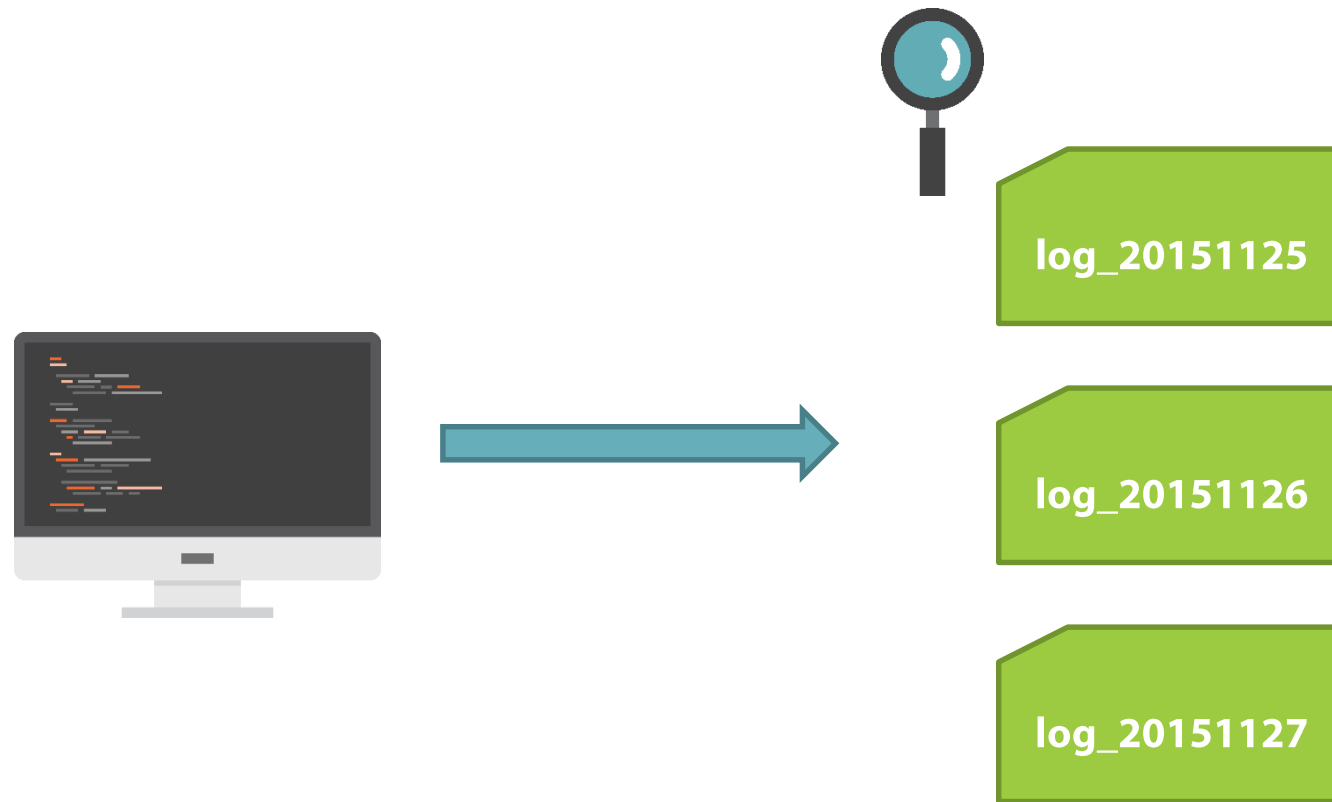# Rolling Indexes

globo_index

Static index

log_20151125

log_20151126

log_20151127

Daily "rolling" indexes

Rolling Indexes: Logging

log_20151125

log_20151126

log_20151127

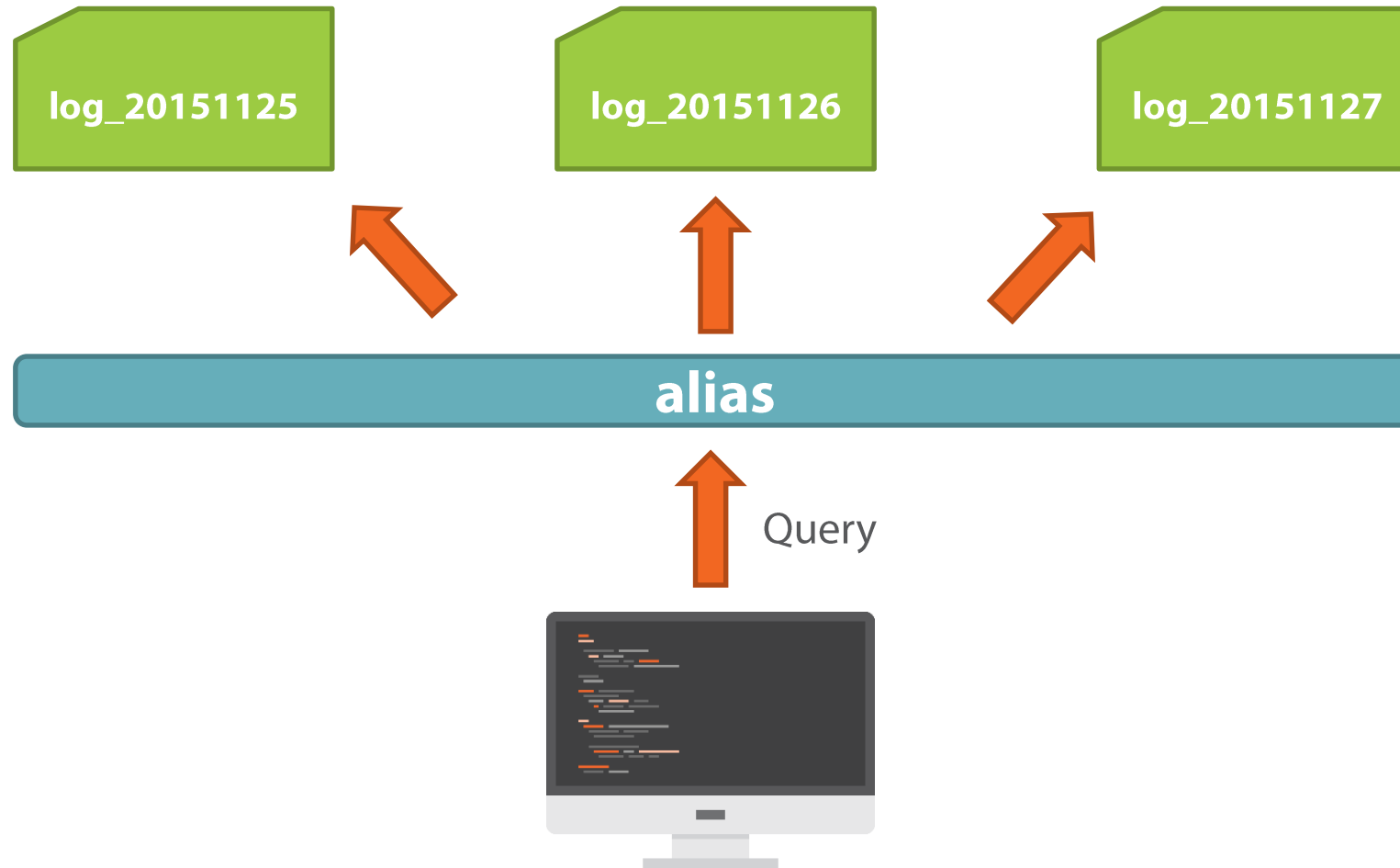# Introducing : Templates and Aliases

```json
{
    "template": "log_*",
    "aliases": {
        "log": {}
    },
    "settings": {
        "index": {
            "number_of_shards": 5,
            "number_of_replicas": 1
        }
    },
    "mappings": …
```

Template

Introducing : Templates and Aliases

Introducing : Templates and Aliases

```json
{
    "template": "log_*",
    "aliases": {
        "log": {}
    },
    "settings": {
        "index": {
            "number_of_shards": 5,
            "number_of_replicas": 1
        }
    },
    "mappings": {
        "log_event": {
            "properties": {
                "log_name": {
                    "type": "string"
                },
                "log_text": {
                    "type": "string"
                },
                "log_date": {
                    "type": "date"
                }
            }
        }
    }
}
```

alias

log_20151125

log_20151126

log_20151127

Dynamic Indexes

json

log_20151125

log_20151126

string ?

int ?

date ?

log_20151127

TEMPLATE

Indexes and Shards

Learned how indexes are created

Explored time-based "rolling" indexes

Disk considerations for shard allocation