



## Spring Data from Groovy

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#s12gx #sdgroovy



# Smidgeon of background first...

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- NoSQL is key/value
  - key may or may not be discreet value
  - value may or may not be a document



# Smidgeon of background first...

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- Not a new concept
  - Hash tables were some of the first data structures
  - IBM DB2 circa 1983
  - Berkley DB circa 1990





**“A Few Years Ago,  
the Idea of a  
Computer You Could  
Put in Your Pocket  
Was Just  
Science Fiction.”**

— Isaac Asimov  
Renowned Science and  
Science-Fiction Author

# Smidgeon of background first...

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- Now defined by having a flexible data schema
  - DB/2 you had to “compile” your data definitions
    - re-compile when they changed, but stuff didn’t necessarily break
  - SQL you use “CREATE TABLE”
    - Schema changes are usually breaking changes
  - NoSQL you just insert data
    - Schema changes are less likely to break things, but that depends on the application

# Spring Data

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- Same value proposition as traditional Spring components
- Don't hide functionality, take it to the next level
- Support NoSQL databases
  - MongoDB
  - Redis
  - Neo4J
  - Riak
- Support traditional SQL as well
  - Oracle extensions
  - JPA

# Spring Data

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```
MongoTemplate template = new MongoTemplate(  
    new Mongo("localhost"),  
    "springone"  
);  
  
template.insert(pojo);  
...  
template.findById(pojo.getId(), Pojo.class);
```



# Spring Data + Groovy

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```
def template = new MongoTemplate(  
    new Mongo("localhost"),  
    "springone"  
)  
  
template.insert pojo  
...  
template.findById(pojo.id, Pojo)
```

# Spring Data + Groovy

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- Dynamic or compiled, your choice.
- Full integration with other JVM libraries.
- Closures/first-class functions.
- Code blocks.
- Language fits better with modern application gestalt.

# Gestalt

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Gestalt: German for “essence or shape of an entity's complete form”

[http://en.wikipedia.org/wiki/Gestalt\\_psychology](http://en.wikipedia.org/wiki/Gestalt_psychology)

# Spring Data Gestalt

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<http://bit.ly/spring-data-mongodb-doc>

# Groovy DSLs

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- Can be abused if used to make things too “easy”
- Less code, faster time to get work done
  - Grails has same proposition, but is bigger chunk to bite off
- Should be interested in expressivity, not complexity

```
db.collection {  
    def cnt = count()  
}
```