

# Neo4j – Graph Workshop Series in association with Rootalpha



## Graph Search Optimization

**Speaker – Shuvam Manna, Founder, Hummingbird**

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Venue - NASSCOM 10000Startup Warehouse Kolkata , Webel Bhavan Premises, Monibhandar Building, Block EP-GP, Sector V, Kolkata - 91

# Shuvam Manna

Founder, Hummingbird

Geek, Coder, Bibliophile,  
blogger, Shutterbug and a  
professional bathroom  
singer perennially on the  
lookout for his Hogwarts  
Acceptance Letter.

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# Hummingbird

Hummingbird is an audio-search engine that searches for the melody of a song, instead of it's lyrics and words.

It takes an Audio input, parses it to obtain a normalized numerical representation of the audio, which is then indexed.

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# Indexing

**Indexing** is the process of a **search** engine collecting, parsing and storage of **data** for use by the **search** engine. .

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# Polyglot Persistence

It is a fancy term to mean that when storing data, it is best to use multiple data storage technologies, chosen based upon the way data is being used by individual applications or components of a single application.

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Neo4j

to provide real time  
personalized product  
recommendations,  
and Speed up  
Search.



MongoDB

Document Data Model for  
Power Browsing/ Searching for  
Products.



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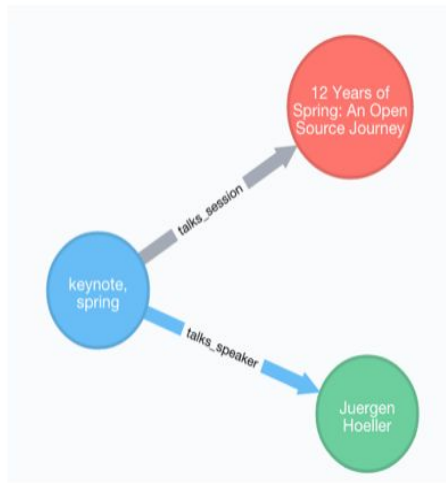
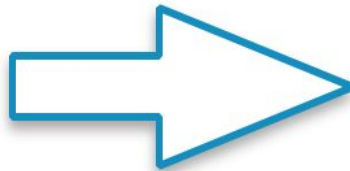


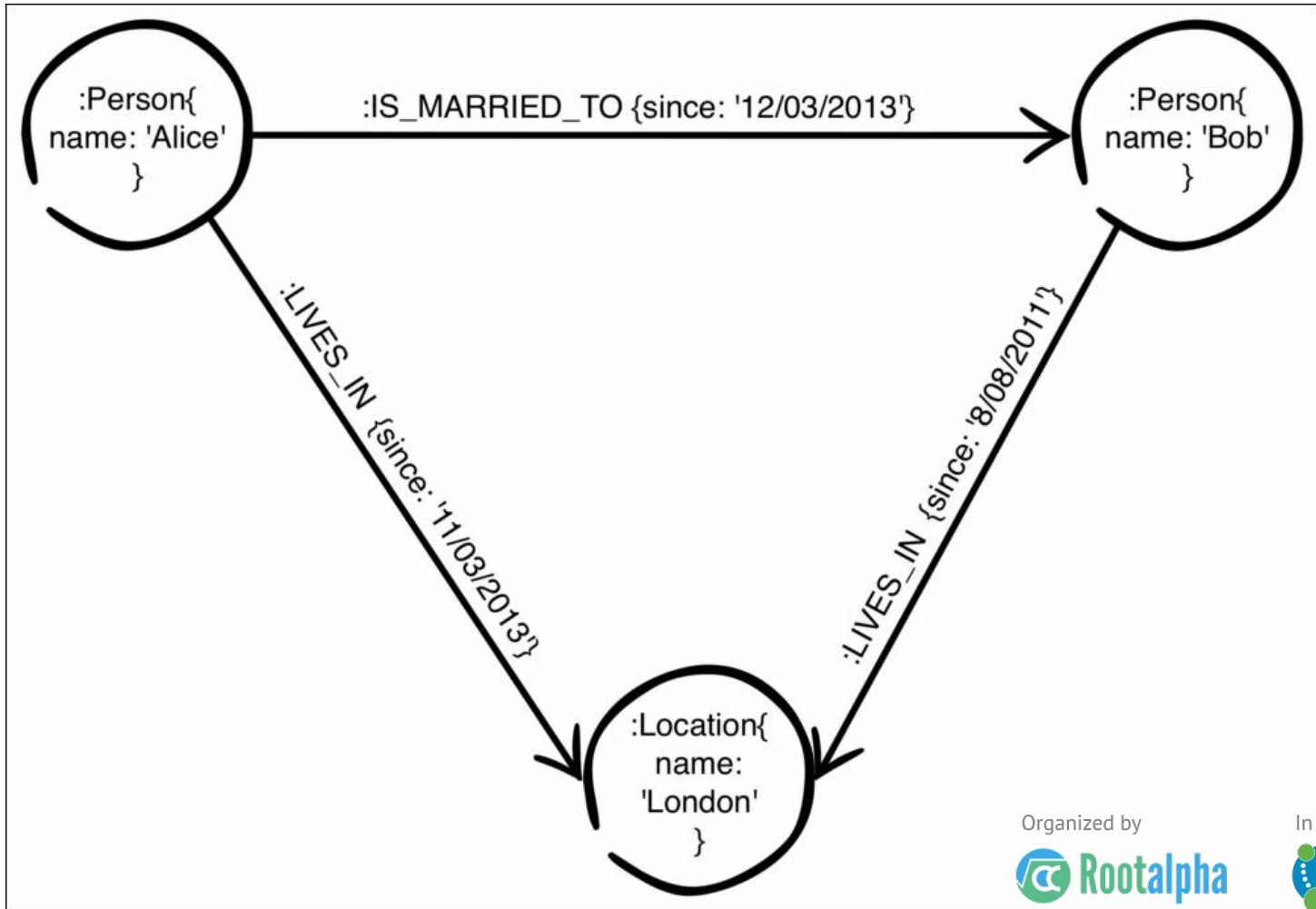
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With the **neo4j\_doc\_manager** service running, any documents inserted into MongoDB will be converted to a property graph structure and immediately inserted into Neo4j as well. Document keys will be turned into nodes. Nested values on each key will become properties.

```
1 {
2   "title": "12 Years of Spring: An Open Source Journey",
3   "abstract": "Spring emerged as a core open source project in early 2003 and evolved to a broad por
4   "topics": ["keynote", "spring"],
5   "room": "Auditorium",
6   "timeslot": "Wed 29th, 09:30-10:30",
7   "speaker": {
8     "name": "Juergen Hoeller",
9     "bio": "Juergen Hoeller is co-founder of the Spring Framework open source project and has been s
10    "twitter": "https://twitter.com/springjuergen",
11    "picture": "http://www.springio.net/wp-content/uploads/2014/11/juergen_hoeller-220x220.jpeg"
12  }
13 }
14 ,
```





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evolved to a broad portfolio of open source projects up until 2015."  
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  "speaker": {  
    "name": "Juergen Hoeller",  
    "bio": "Juergen Hoeller is co-founder of the Spring Framework open source  
project.",  
    "twitter": "https://twitter.com/springjuergen",  
    "picture":  
    "http://www.springio.net/wp-content/uploads/2014/11/juergen_hoeller-220x2  
20.jpeg"  
  }  
}
```

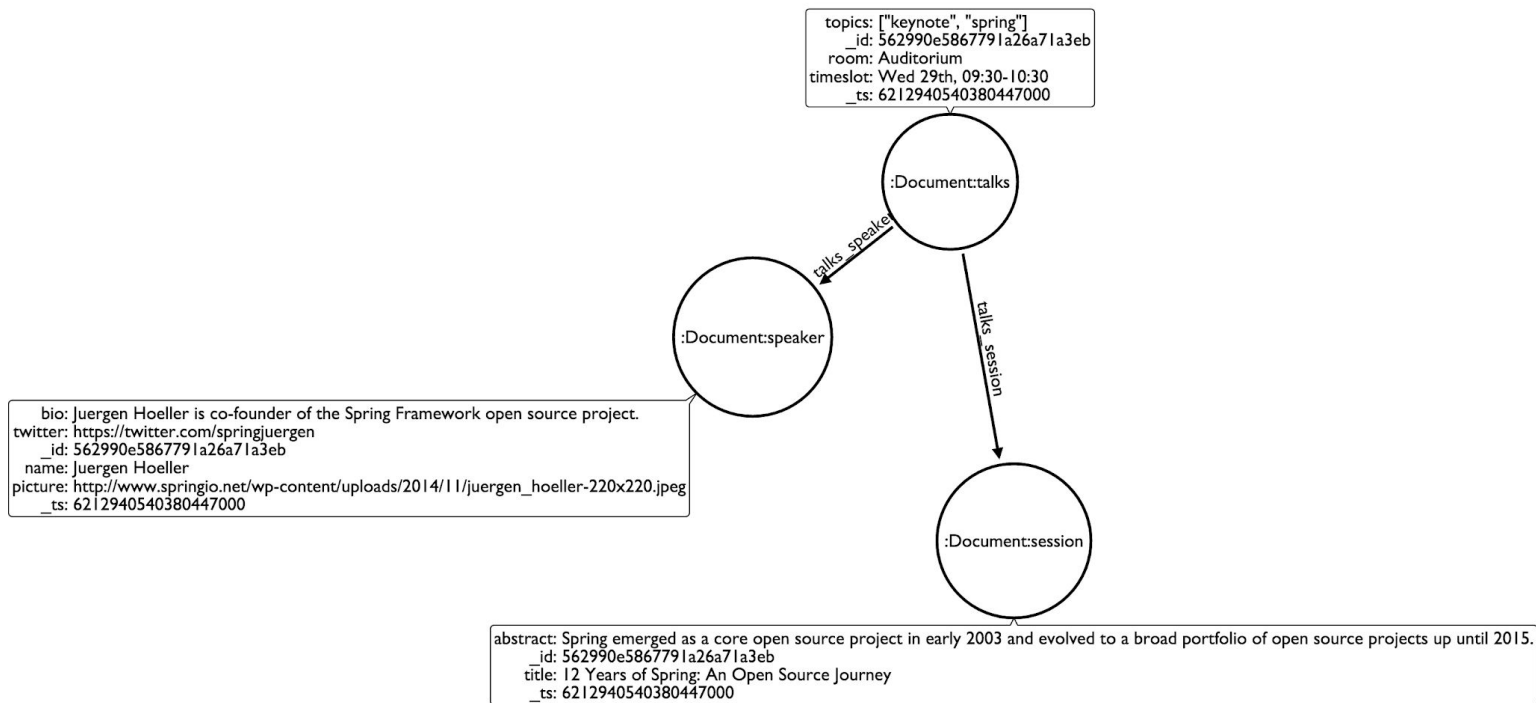
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# db.talks.insert( "Whatever is in the Json File");



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# That's it

Thank You for not booing,  
or hurling shoes, exploding batteries or rotten tomatoes.

May the source be with you

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