

Philadelphia

{ 'name': "MongoDB User Group",  
'location': 'Philadelphia' }

# Your First MongoDB Application

A Beginner's Introduction to MongoDB

Michael Lynn, October 2017

**Wifi: WeWork Guest (pw: ...)**



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# Preparing for Beginner MongoDB MUG

1. Install MongoDB
  - a. See here: <https://docs.mongodb.com/manual/installation/>
2. Test Launching MongoDB
  - a. See here:  
<https://docs.mongodb.com/manual/tutorial/manage-mongodb-processes/>
3. Load Some Data
  - a. <http://bit.ly/2xmQMYl>



# AGENDA

- 1 Database concepts
- 2 Installing MongoDB
- 3 Building a basic blogging application
- 4 Adding an index
- 5 Query optimization with explain
- 6 Questions



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# Summary of Database Concepts

- Why NoSQL exists
- The types of NoSQL database
- The key features of MongoDB
- Data durability in MongoDB – Replica Sets
- Scalability in MongoDB - Sharding



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# Concepts

Relational	MongoDB
Database	Database
Table	Collection
Row	Document
Index	Index
Join	Lookup
Foreign Key	Reference
Multi-table transaction	Single document transaction



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# Document Store

```
{  
  name: "Michael Lynn",  
  title: "Sr. Solutions Architect",  
  address: {  
    address1: "1601 Market Street",  
    address2: "19th Floor",  
    city: "Philadelphia",  
    state: "PA",  
    zipcode: "19123"  
  },  
  expertise: [ "MongoDB", "Python", "Javascript" ],  
  employee_number: 798,  
  location: {  
    type: "point",  
    coords: [ 39.953097, -75.167352 ]  
  }  
}
```



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  employee_number: 798,  
  location: {  
    type: "point",  
    coords: [ 39.953097, -75.167352 ]  
  }  
}
```

```
{  
  name: "Joe Drumgoole",  
  title: "Director of Developer  
Advocacy",  
  address: {  
    address1: "Latin Hall",  
    address2: "Golden Lane",  
    eircode: "D09 N623",  
  },  
  expertise: [ "MongoDB", "Python",  
    "Javascript" ],  
  employee_number: 520,  
  location: {  
    type: "point",  
    coords: [ 53.34, -6.26 ]  
  }  
}
```



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