MySQL

Why Databases Are Awesome

MySQL
What Is A Database?

MySQL

MySQL

What Is A Database?

MySQL
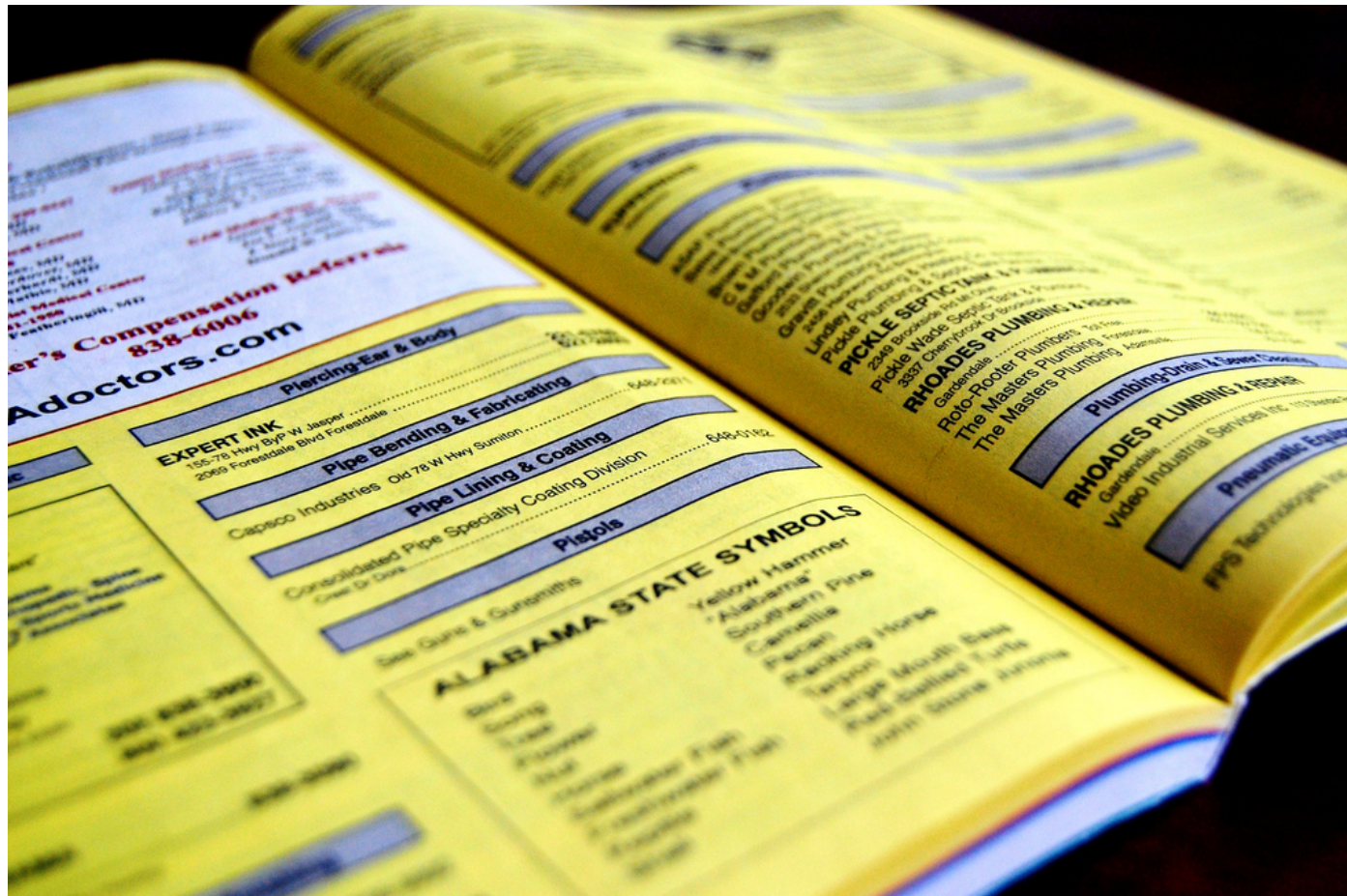
What Is A Database?

Why Do They Matter?

What Is A Database?

What Is A Database?

1. A collection of data

A Phone Book!

A Quick Example

```
Andrews, Archie   - (949)345-2222
Cooper, Betty     - (212)246-9846
Flanders, Ned     - (415)987-3451
Jones, Jughead    - (415)888-3777
Lodge, Veronica   - (714)332-0981
Snow, Jon         - (949)621-1908
Stark, Ned        - (310)119-6501
```

A Quick Example

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```

Find Ned Flanders' Phone Number

A Quick Example

```
Andrews, Archie   - (949)345-2222
Cooper, Betty     - (212)246-9846
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Lodge, Veronica   - (714)332-0981
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```

Find Ned Flanders' Phone Number

Find People With First Name "Ned"

A Quick Example

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Andrews, Archie  - (949)345-2222
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Lodge, Veronica  - (714)332-0981
Snow, Jon        - (949)621-1908
Stark, Ned       - (310)119-6501
```

Find Ned Flanders' Phone Number

Find People With First Name "Ned"

Find All Phone Numbers With Area Code 415

A Quick Example

```
Andrews, Archie   - (949)345-2222
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```

Find Ned Flanders' Phone Number

Find People With First Name "Ned"

Find All Phone Numbers With Area Code 415

Find All People Who Have a 3-letter First Name

What Is A Database?

1. A collection of data

What Is A Database?

1. A collection of data

2. A method for accessing and manipulating that data

A Quick Example

```
Andrews, Archie    - (949)345-2222
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Find Ned Flanders' Phone Number

Find People With First Name "Ned"

Find All Phone Numbers With Area Code 415

Find All People Who Have a 3-letter First Name

Database

Vs.

Database Management System

DIAGRAM TIME!

DIAGRAM TIME!

Your App

DIAGRAM TIME!

Your App

Database
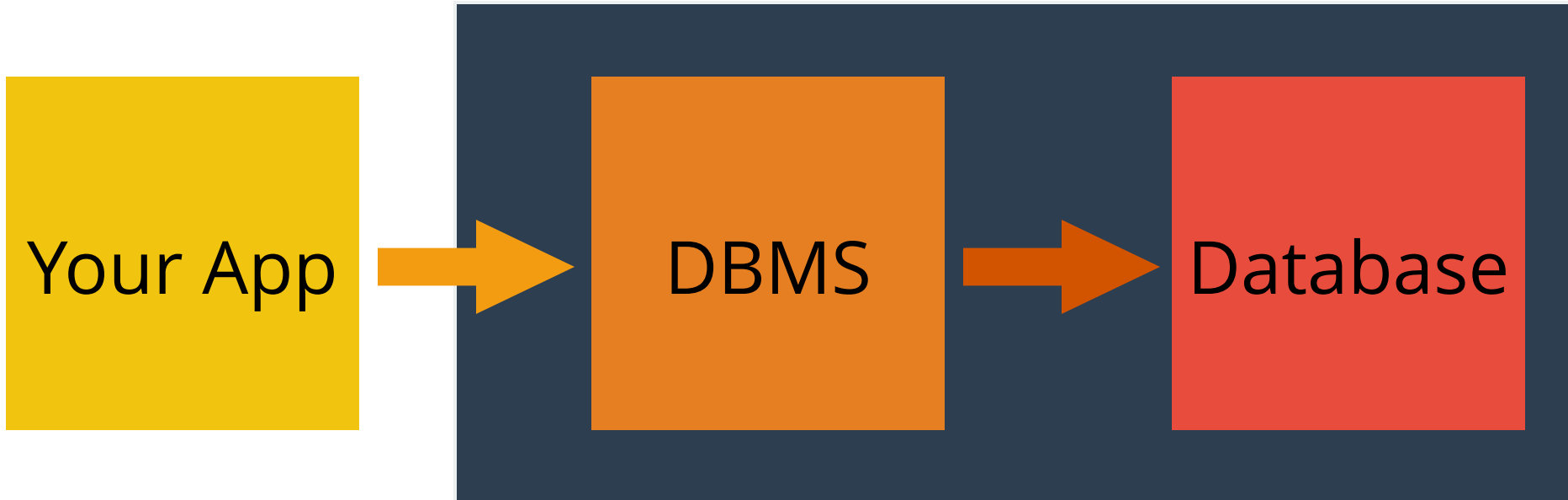
DIAGRAM TIME!

Your App

DBMS

Database

DIAGRAM TIME!

Your App → DBMS → Database

DIAGRAM TIME!

Your App → DBMS → Database

DIAGRAM TIME!

Your App → DBMS → Database

"Database"
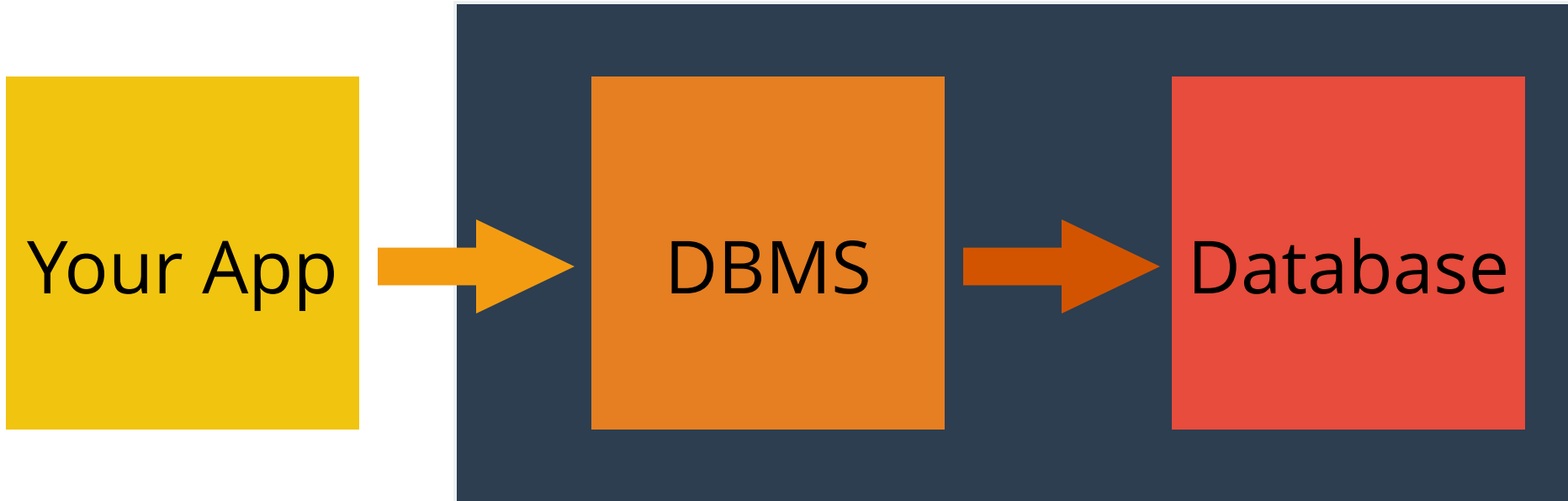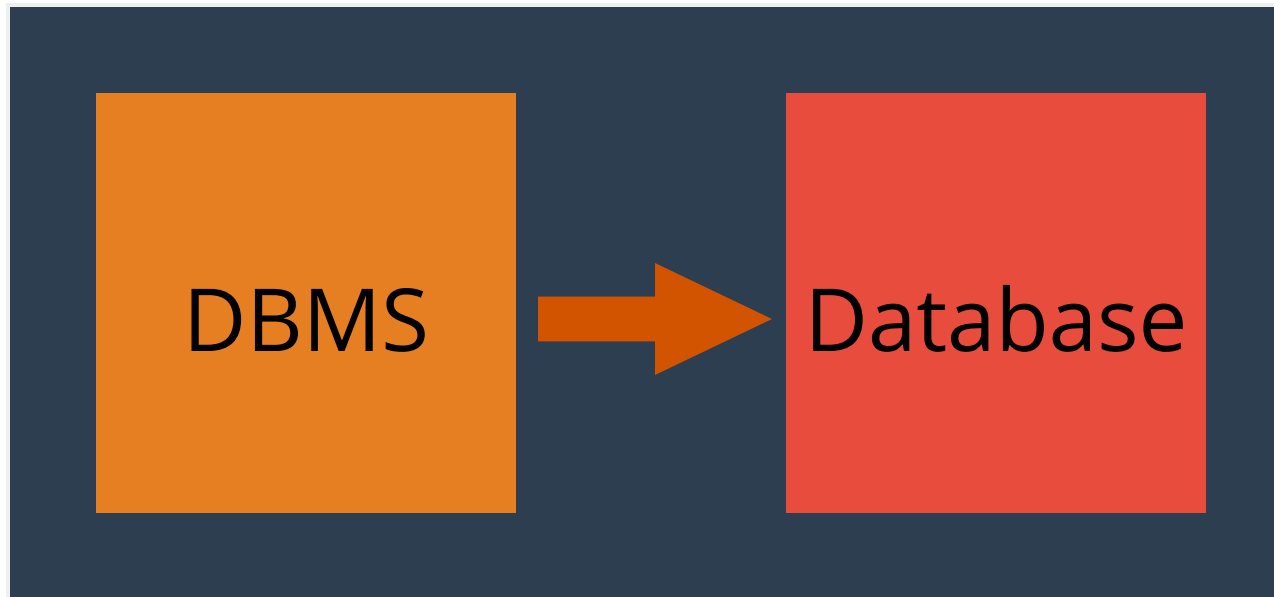
DBMS → Database

PostgreSQL   MySQL

Oracle Database   SQLite

What Is A Database?

A structured set of computerized data with an accessible interface

Why Do They Matter?

Well...why does data matter?

Why Do They Matter?
Well...why does data matter?

Hurry up and go to the next slide and you'll see

Data

Is

Knowledge

Data

Is

Money

Some More Giant Text

You've probably heard of big data....

It's ok if you haven't!

Data has always played an important role in industries

But now, data itself is a huge booming industry!

Why MySQL?

Some Popular Databases

- MongoDB
- Oracle
- MySQL
- SQLite
- PostgreSQL
- MaxDB
- Firebird
- Redis

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- MongoDB
- Oracle
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MySQL vs. SQL

Let's Start With SQL

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Structured Query Language

SQL is the language we use to "talk" to our databases

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"Find All Users"

SQL is the language we use to "talk" to our databases

"Find All Users"

"Find All Users Who Are 18 Years Old"

SQL is the language we use to "talk" to our databases

"Find All Users"

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"Add A New User With Username 'JumboJim'"

SQL is the language we use to "talk" to our databases

"Find All Users"

"Find All Users Who Are 18 Years Old"

"Add A New User With Username 'JumboJim'"

Delete Every Single User!

A Quick Preview!

A Quick Preview!

Find All Users Who Are 18 Or Older

A Quick Preview!

Find All Users Who Are 18 Or Older
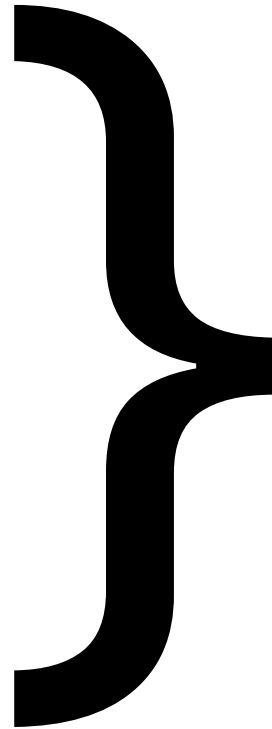
A Quick Preview!

Find All Users Who Are 18 Or Older

```
SELECT * FROM Users WHERE Age >= 18;
```

Working With MySQL Is Primarily Writing SQL

Relational Databases

- MySQL
- SQLite
- PostgreSQL
- Oracle
- Many Others

} All Use SQL

MySQL

PostgreSQL

MySQL

```
SELECT * FROM Users WHERE Age >= 18;
```

PostgreSQL

MySQL

```
SELECT * FROM Users WHERE Age >= 18;
```

PostgreSQL

```
SELECT * FROM Users WHERE Age >= 18;
```

There Are Slight Differences In Syntax

Which We'll Talk About In This Course!

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Colt, Don't Forget To Mention The SQL Standard!

Two Takeaways

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1. Once you learn SQL, it's pretty easy to switch to another DB that uses SQL

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1. Once you learn SQL, it's pretty easy to switch to another DB that uses SQL

2. What makes databases (DBMS) unique are the features they offer, not the language

Some Code

```
SELECT * FROM animals;
```

```
SELECT species, status FROM animals;
```