HP

Document Database Basics Couchbase

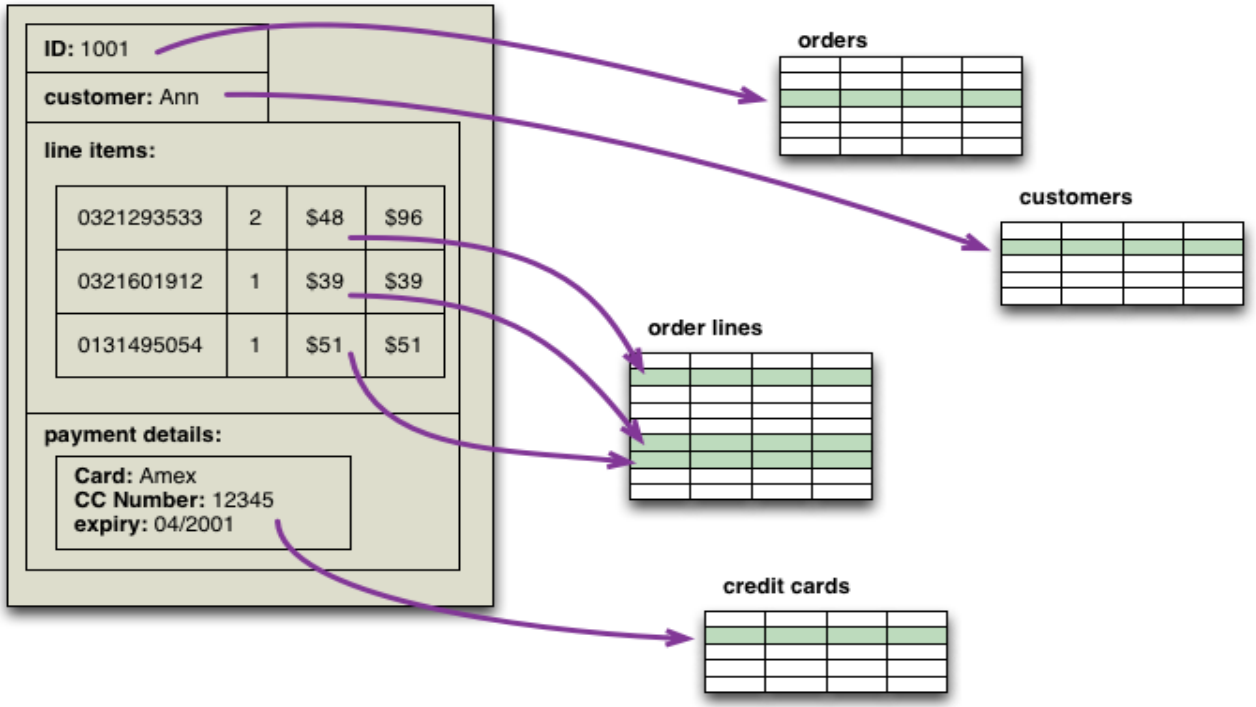
HP

Json Document


```
{
   "firstName": "John",
   "lastName": "Smith",
   "age": 25,
   "address":
   {
      "streetAddress": "21 2nd Street",
      "city": "New York",
      "state": "NY",
      "postalCode": "10021"
   },
   "phoneNumber":
   [
      {
        "type": "home",
        "number": "212 555-1234"
      },
      {
        "type": "fax",
        "number": "646 555-4567"
      }
   ]
}
```

HP

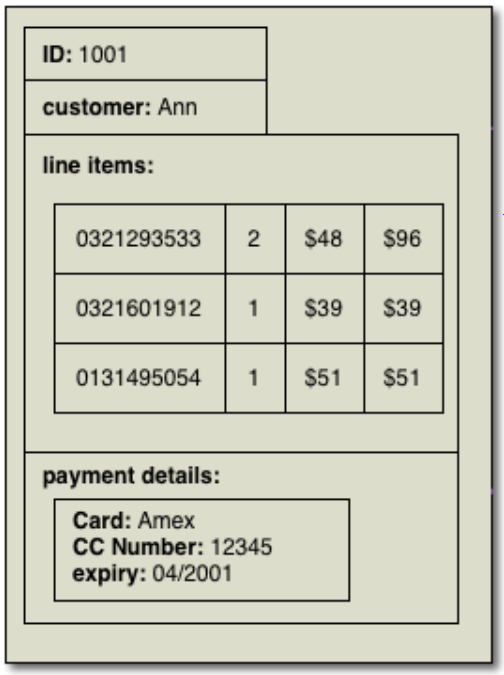
The relational approach to model data



Relational databases were not designed with clusters in mind, which is why people have cast around for an alternative. Storing aggregates as fundamental units makes a lot of sense for running on a cluster.

http://martinfowler.com/bliki/AggregateOrientedDatabase.html

HP Compared to a Document Database




```
o::1001
{
uid: “ji22jd”,
customer: “Ann”,
line_items: [
        { sku: 0321293533, quan: 3,  unit_price: 48.0 },
        { sku: 0321601912, quan: 1, unit_price: 39.0 },
        { sku: 0131495054, quan: 1, unit_price: 51.0 }
],
payment: {
        type: “Amex”,
        expiry: “04/2001”,
        last5: 12345
}
```

- Easy to distribute data
- Makes sense to application programmers

Object to JSON back to Object

User Object

string	uid
string	firstname
string	lastname
int	age
array	favorite_colors
string	email

u::michael.nitschinger@couchbase.com

```
{
"uid": 123456,
"firstname": "Michael",
"lastname": "Nitschinger",
"age": 24,
"favorite_colors": ["blue", "black"],
"email": "michael.nitschinger@cou…"
}
```

set()

get()

u::michael.nitschinger@couchbase.com

```
{
"uid": 123456,
"firstname": "Michael",
"lastname": "Nitschinger",
"age": 24,
"favorite_colors": ["blue", "black"],
"email": "michael.nitschinger@cou…"
}
```

User Object

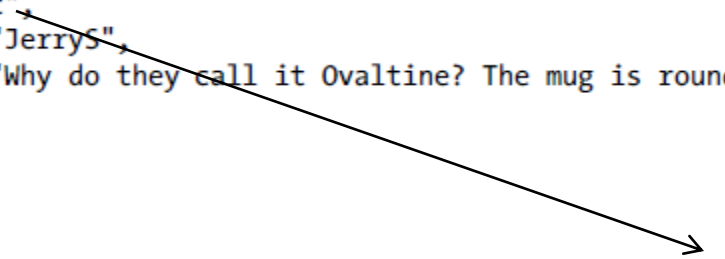
string	uid
string	firstname
string	lastname
int	age
array	favorite_colors
string	email

HP

Using a Document-Oriented Approach

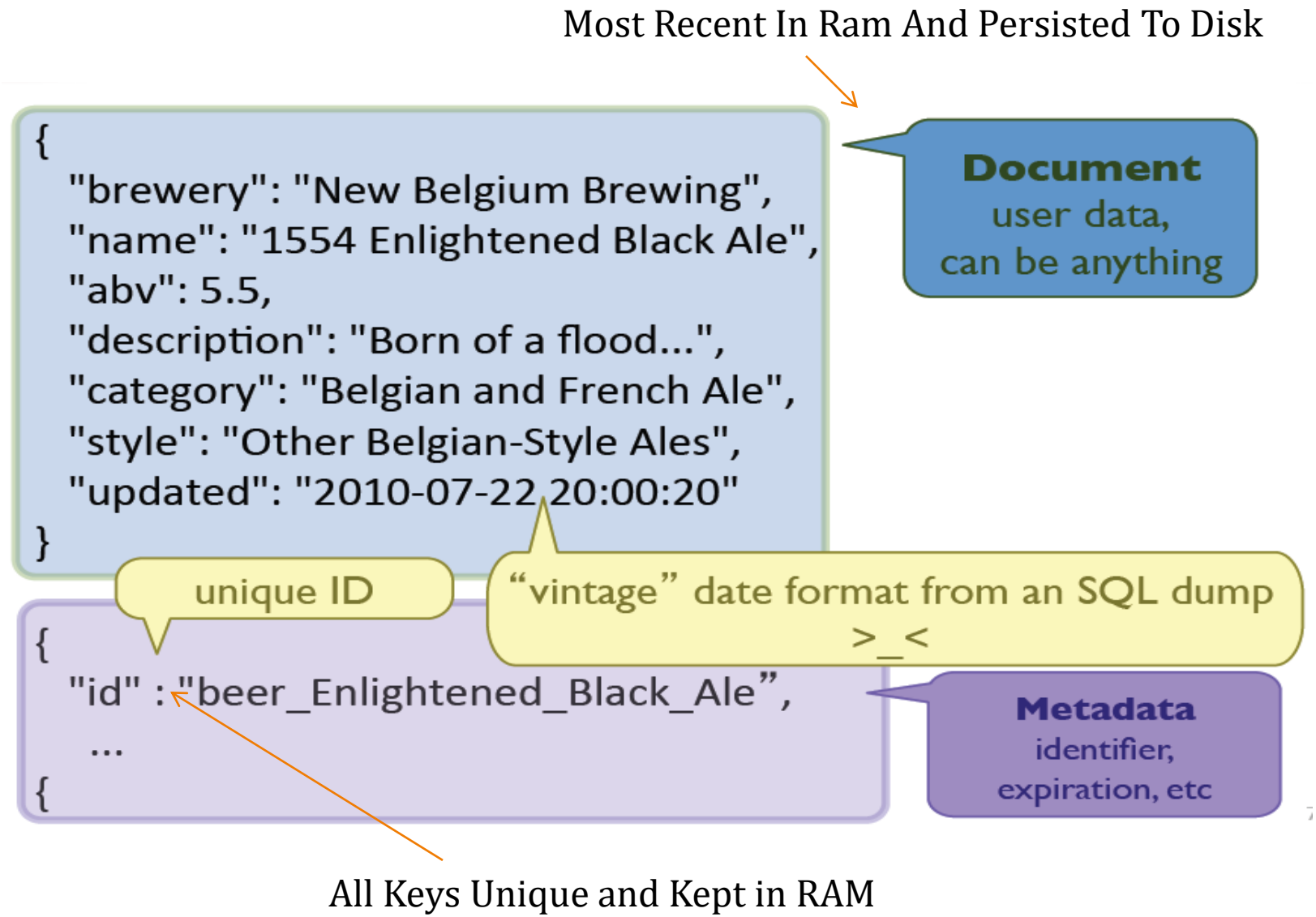
- use documents in a specific format that stores data representing an object graph.
- documents are stored in JSON format.
- we do not represent the fields with null values.

```
{
        "id": "2d18e287-d5fa-42ce-bca5-b26eaef0d7d4",
        "type": "rant",
        "userName": "JerryS",
        "rantText": "Why do they call it Ovaltine? The mug is round. The jar is round. They should
call it Roundtine."
}
```



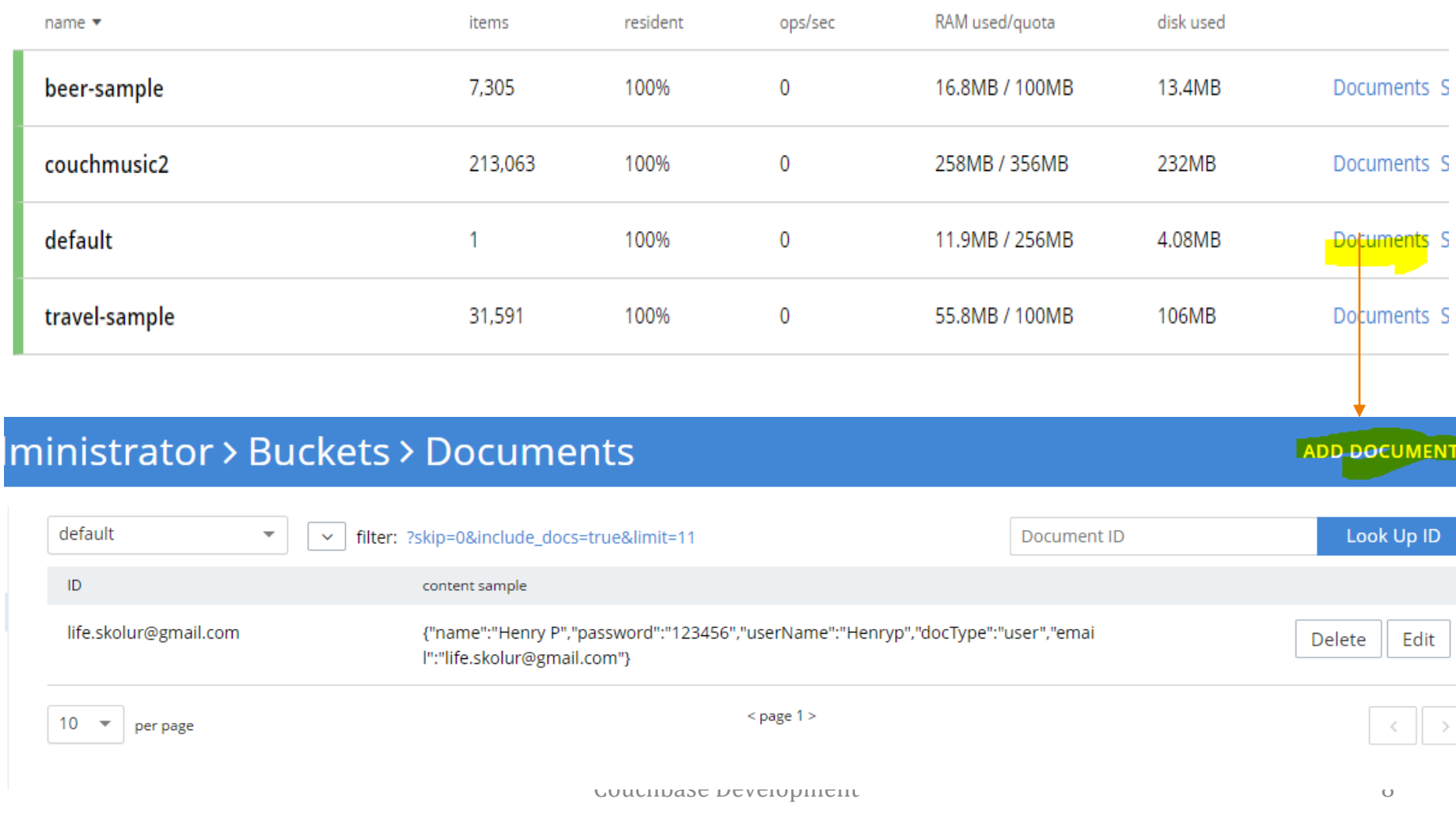
Not bound to a schema.

Meta + Document Body



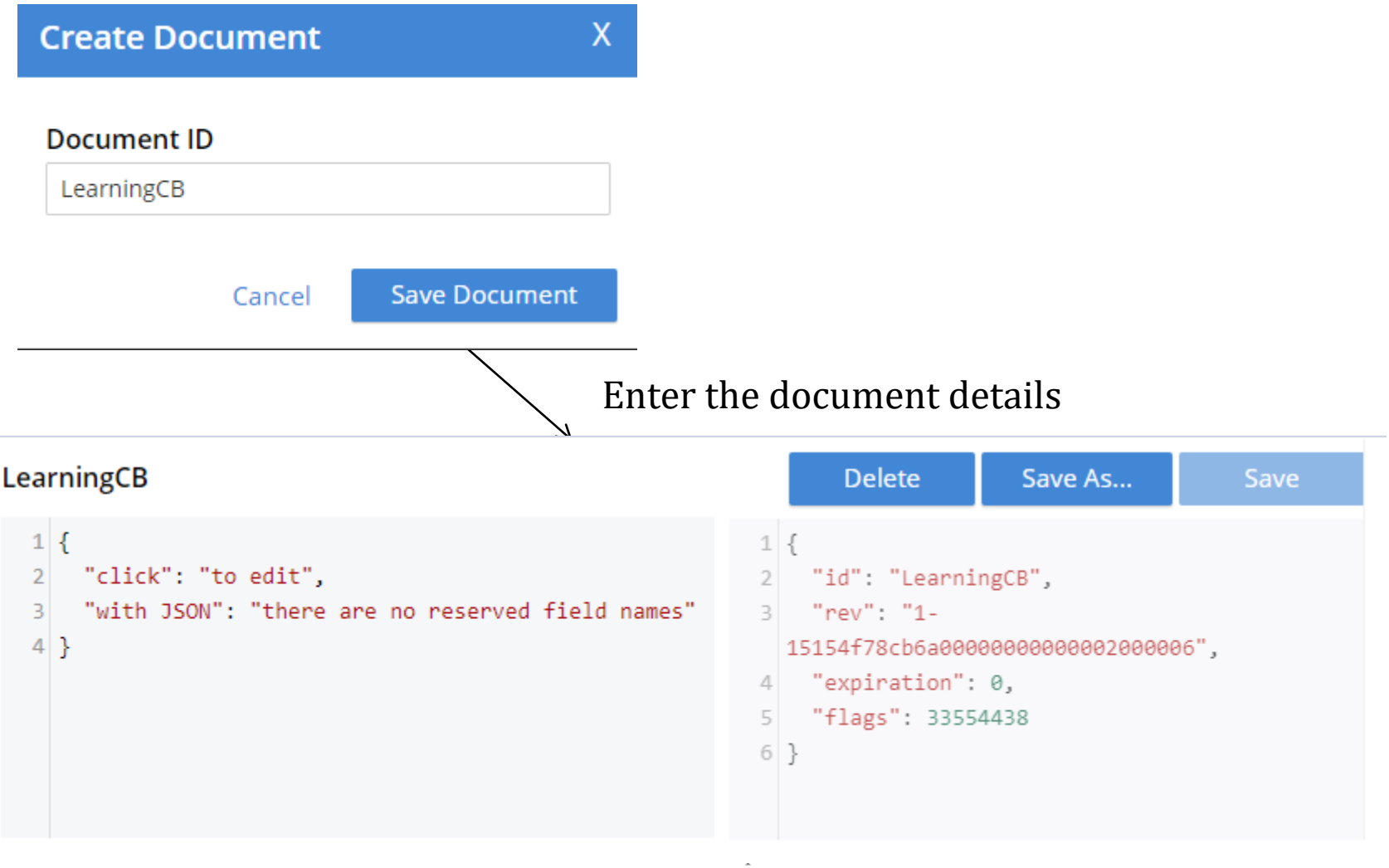
HP Creating Your First Document

- Using Admin UI



Creating Your First Document

- Document ID → Enter document detail



- **Labs:**
  Couchbase Web Console
  Change Bucket Settings