

mongoDB®



Companies Uses MongoDB

Forbes



verizon[✓]

Thermo
SCIENTIFIC

ebay

Shutterfly.



MOHAWK[®]
INDUSTRIES, INC.



PicPay

SQL vs NoSQL

Comparison

SQL

S → Structure

Q → Query

L → Language

Relational Database

NoSQL

N → Not

O → only

S → Structure

Q → Query

L → Language

Non-Relational Database



SQL

Relational Databases

User Table

_id	first_name	last_name	email	address	phone
1	Rahul	Sharma	rahul@co	123 St.	63-55

User Table

_id	first_name	last_name	email	email_2	address	phone
1	Rahul	Sharma	rahul@co	rahul2@co	123 St.	63-55

User Table

_id	first_name	last_name	email	email_2	email_3	address	phone
1	Rahul	Sharma	rahul@co	rahul2@co	rahul3@co	123 St.	63-55

User Table

_id	first_name	last_name	email	email_2	email_3	address	phone
1	Rahul	Sharma	rahul@co	rahul2@co	rahul3@co	123 St.	63-55
2	Ram	Krishna	rk@co			456 St.	88-99

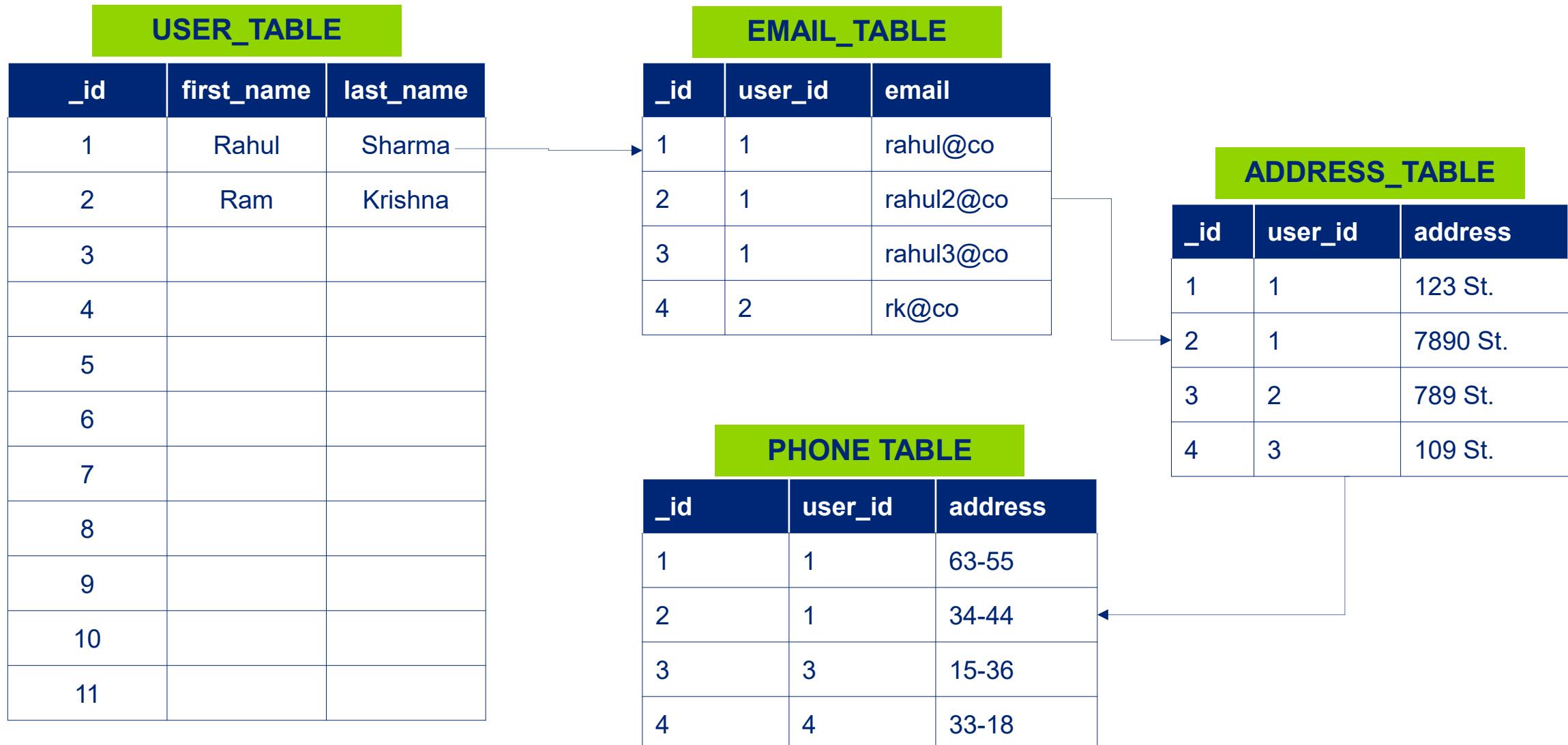
User Table

_id	first_name	last_name	email	email_2	email_3	address	address_2	phone	phone_2
1	Rahul	Sharma	rahul@co	rahul2@co	rahul3@co	123 St.	7890 St.	63-55	34-44
2	Ram	Krishna	rk@co			456 St.		88-99	

User Table

_id	first_name	last_name	email	email_2	email_3	address	address_2	phone	phone_2
1	Rahul	Sharma	rahul@co	rahul2@co	rahul3@co	123 St.	7890 St.	63-55	34-44
2	Ram	Krishna	rk@co			456 St.		88-99	
3									
4									
5									
6									
7									
8									
9									
10									
11									

Relational Database





NoSQL

Non – relational Databases

NoSQL Database

- Key – Value
- Wide – Column
- Graph
- Document

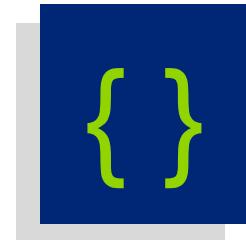
NoSQL Database



- MongoDB is a **document** database

Document Database

Table, row and columns
SQL



document



JSON
JavaScript Object Notation



BSON
Binary JavaScript Object Notation

```
{  
  "key": "value"  
}
```

```
{  
    "key": "value"  
}
```

{

“key”: “value”

}

```
{  
    "key": "value"  
}
```

```
{  
  "key": "value"  
}
```

```
{  
  "key": 123  
}
```

```
{  
  "key": ["string", 123]  
}
```

```
{  
  "key": {"key": 123}  
}
```

Record to Document

_id	first_name	last_name	email	email_2	email_3	address	address_2	phone	phone_2
1	Rahul	Sharma	rahul@co	rahul2@co	rahul3@co	123 St.	7890 St.	63-55	34-44

record

document.json

document

```
1  {
2    "_id":1,
3    "first_name": "Rahul",
4    "last_name": "Sharma",
5    "email": [
6      "rahul@co",
7      "rahul2@co",
8      "rahul3@co"
9    ],
10   "address": [
11     "123 St.",
12     "7890 St."
13   ],
14   "phone": [
15     "63-55",
16     "34-44"
17   ]
18 }
```

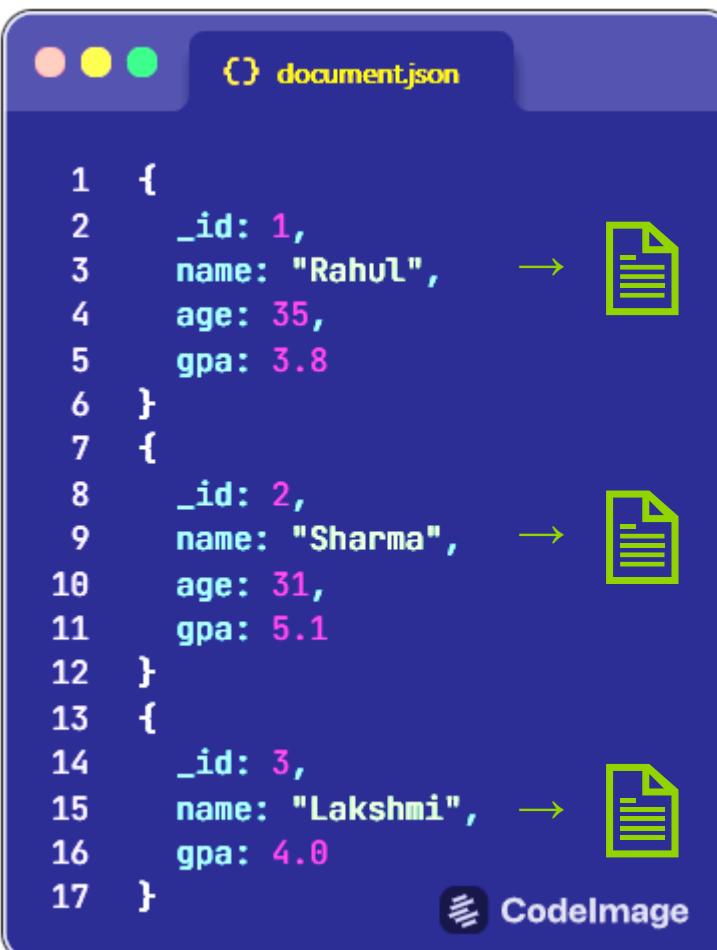


Table and Collection

table

_id	name	age	gpa
1	Rahul	35	3.8
2	Sharma	31	5.1
3	Lakshmi	27	4.0

collections



The image shows a code editor window with three files named document1.json, document2.json, and document3.json. Each file contains a single object representing a row from the table above.

```
document1.json:
1 {  
2   _id: 1,  
3   name: "Rahul", →   
4   age: 35,  
5   gpa: 3.8  
6 }  
document2.json:  
7 {  
8   _id: 2,  
9   name: "Sharma", →   
10  age: 31,  
11  gpa: 5.1  
12 }  
document3.json:  
13 {  
14   _id: 3,  
15   name: "Lakshmi", →   
16   gpa: 4.0  
17 }
```

CodeImage

SQL

Cluster
Database
Table
Row
Column

NoSQL

Cluster
Database
Collection
Document
Field

Next



Hello World to MongoDB Atlas

vedicSKILL.