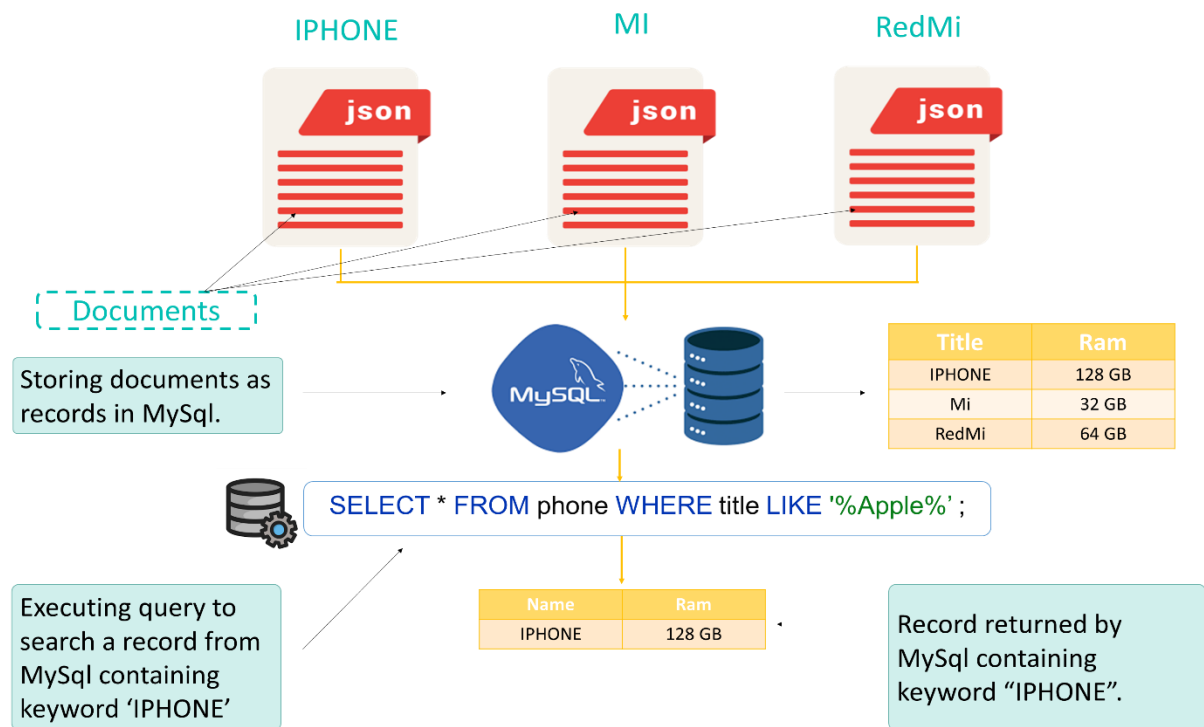


## Q.) Why mysql is not used instead of Elasticsearch , to store and query documents ?

Now you might be having a question why mysql can not be used to store documents and using sql query why document can not be fetched from mysql.



First lets have a look on how we can store the doucument in the mysql table by the name phone.

Then we will have a look how to filter out the documents having keywords "Apple + 128GB"

Document that we want to store in the table by  
the name phone.

```
[
  {
    "mobileName" : "Infix Q34W",
    "title" : "Infinix Smart 6 HD (Force Black, 32 GB)",
    "device" : "Smart Phone",
    "ram" : "32 GB"
  },
  {
    "mobileName" : "APPLE iPhone 14",
    "title" : "APPLE iPhone 14 (Midnight, 128 GB)",
    "device" : "Smart Phone",
    "ram" : "128 GB"
  },
  {
    "mobileName" : "APPLE iPhone 13",
    "title" : "APPLE iPhone 13 (Starlight, 128 GB)",
    "device" : "Smart Phone",
    "ram" : "128 GB"
  },
  {
    "mobileName" : "realme GT Neo 3",
    "title" : "realme GT Neo 3 (Asphalt Black, 256 GB)",
    "device" : "Smart Phone",
    "ram" : "256 GB"
  },
  {
    "mobileName" : "SAMSUNG Galaxy S23 Plus 5G",
    "title" : "SAMSUNG Galaxy S23 Plus 5G (Cream, 256 GB)",
    "device" : "Smart Phone",
    "ram" : "256 GB"
  }
]
```

To store the above document in a phone table in MySQL, you need to create the table with columns matching the fields in the document. Here's an example of how you can create a table with columns mobileName, title, device, and ram:

```
CREATE TABLE phone (
  mobileName VARCHAR(50),
  title VARCHAR(200),
  device VARCHAR(50),
  ram VARCHAR(50)
);
```

Then, you can insert the document values into the phone table as follows:

```
INSERT INTO phone (mobileName, title, device, ram) VALUES
('Infix Q34W', 'Infinix Smart 6 HD (Force Black, 32 GB)', 'Smart Phone', '32 GB'),
('APPLE iPhone 14', 'APPLE iPhone 14 (Midnight, 128 GB)', 'Smart Phone', '128 GB'),
('APPLE iPhone 13', 'APPLE iPhone 13 (Starlight, 128 GB)', 'Smart Phone', '128 GB'),
('realme GT Neo 3', 'realme GT Neo 3 (Asphalt Black, 256 GB)', 'Smart Phone', '256 GB'),
('SAMSUNG Galaxy S23 Plus 5G', 'SAMSUNG Galaxy S23 Plus 5G (Cream, 256 GB)', 'Smart Phone', '256 GB');
```

The table will look some thing like this :-

mobileName	title	device	ram
Infix Q34W	Infinix Smart 6 HD (Force Black, 32 GB)	Smart Phone	32 GB
APPLE iPhone 14	APPLE iPhone 14 (Midnight, 128 GB)	Smart Phone	128 GB
APPLE iPhone 13	APPLE iPhone 13 (Starlight, 128 GB)	Smart Phone	128 GB
realme GT Neo 3	realme GT Neo 3 (Asphalt Black, 256 GB)	Smart Phone	256 GB
SAMSUNG Galaxy S23 Plus	SAMSUNG Galaxy S23 Plus 5G (Cream, 256 GB)	Smart Phone	256 GB

Now to filter out the records from the phone table title contains the key words “Apple” + “128 GB”.

Below query can be used.

```
SELECT * FROM phone WHERE title LIKE '%Apple%' AND title LIKE '%128 GB%';
```

Output :-

mobileName	title	device	ram
APPLE iPhone 14	APPLE iPhone 14 (Midnight, 128 GB)	Smart Phone	128 GB
APPLE iPhone 13	APPLE iPhone 13 (Starlight, 128 GB)	Smart Phone	128 GB

Now you might be clear that how mysql can be used to store and And filter out the doucment containing specific keywords.

The reason why mysql is not used because of two reasons.

1. Doing a search across 1TB of data using in mysql is very slow as compared to elastic serach.
2. When you try to store billions of documents as records in mysql , mysql will crash on the other hand you can scale elastic search to store billions of documents.