

Analysis of Books

1. Read all documents from the books collection where “tags” array contains ‘database’ element.

```
Select * from books where ARRAY_CONTAINS (books.tags, "database")
```

1 - 2

```
[
  {
    "title": "MongoDB in simple way",
    "isbn": 6677,
    "downloadable": true,
    "no_of_reviews": 4,
    "tags": [
      "database",
      "cloud",
      "nosql"
    ],
    "languages": [ ...
    ],
    "author": { ...
    },
    "id": "46a45322-b81a-4267-a56b-750610a8d8a4"
```

2. List out all documents from books collection where author’s profile contains exactly 2 courses.

```
Select * from books where books.author.profile.courses = 2
```

```
>> {
  "languages": [ ...
  ],
  "author": {
    "name": "Karthik Ramachandran",
    "callname": "Karthik",
    "profile": {
      "exp": 1,
      "courses": 2,
      "books": 3
    }
  },
  "id": "8ba5c87d-d11a-4d7d-ad48-a1c111f63c62",
  "_rid": "s60mAK6ZFEICAAAAA==",
  "_self": "dbs/s60mAA=/colls/s60mAK6ZFEI=/docs/s60mAK6ZFEICAAAAA==/",
  "_etag": "\"e300ce97-0000-0700-0000-6419724d0000\""
}
```

3. List out all documents from books collection where tags array is exactly equal to ['language','freeware','programming']

```
Select * from books where books.tags = ['language','freeware','programming']
```

1 - 2

```
[
  {
    "title": "Java in simple way",
    "isbn": 1122,
    "downloadable": true,
    "no_of_reviews": 2,
    "tags": [
      "language",
      "freeware",
      "programming"
    ],
    "languages": [
      "english",
      "hindi",
      "telugu"
    ]
  }
]
```

4. List out all documents from books collection where tags array contains 'programming'

```
Select * from books where ARRAY_CONTAINS (books.tags, 'programming')
```

1 - 3

```
[
  {
    "title": "Java in simple way",
    "isbn": 1122,
    "downloadable": true,
    "no_of_reviews": 2,
    "tags": [
      "language",
      "freeware",
      "programming"
    ],
    "languages": [
      "english",
      "hindi",
      "telugu"
    ]
  }
]
```

5. List out all documents from books collection where language array contains 'telugu'

```
Select * from books where ARRAY_CONTAINS (books.languages, 'telugu')
```

1 - 6

```
[
  {
    "title": "Linux in simple way",
    "isbn": 6677,
    "downloadable": false,
    "no_of_reviews": 1,
    "tags": [
      "os",
      "freeware",
      "shell programming"
    ],
    "languages": [
      "english",
      "hindi",
      "telugu"
    ]
  }
]
```

6. List out all documents present in books collection

```
Select * from books
```

1 - 7

```
[
  {
    "title": "Linux in simple way",
    "isbn": 6677,
    "downloadable": false,
    "no_of_reviews": 1,
    "tags": [
      "os",
      "freeware",
      "shell programming"
    ],
    "languages": [
      "english",
      "hindi",
      "telugu"
    ]
  }
]
```

7. Find total number of documents present in books collection

```
Select count(1) as count_documents from books
```

1 - 1

```
{
  "count_documents": 7
}
```

8. List out first document present in books collection

```
Select TOP 1 * from books
```

1 - 1

```
{
  "title": "Linux in simple way",
  "isbn": 6677,
  "downloadable": false,
  "no_of_reviews": 1,
  "tags": [
    "os",
    "freeware",
    "shell programming"
  ],
  "languages": [
    "english",
    "hindi",
    "telugu"
  ]
}
```

10. Select all documents where either no_of_reviews > 3 or tags array contains programming element

```
Select * from books where books.no_of_reviews > 3 or ARRAY_CONTAINS(books.tags,
'programming')
```

1 - 4

```
{
  "title": "Java in simple way",
  "isbn": 1122,
  "downloadable": true,
  "no_of_reviews": 2,
  "tags": [
    "language",
    "freeware",
    "programming"
  ],
  "languages": [
    "english",
    "hindi",
    "telugu"
  ]
}
```

11. Select all documents where either no_of_reviews < 3 or downloadable is true or author profile contains at least 2 books.

```
Select * from books where books.no_of_reviews < 3 or books.downloadable = true or
books.author.profile.books > 1
```

1 - 7

```
[
  {
    "title": "Linux in simple way",
    "isbn": 6677,
    "downloadable": false,
    "no_of_reviews": 1,
    "tags": [
      "os",
      "freeware",
      "shell programming"
    ],
    "languages": [
      "english",
      "hindi",
      "telugu"
    ]
  }
]
```

12. Select all documents where either no_of_reviews > 3.

```
Select * from books where books.no_of_reviews > 3
```

1 - 2

```
[
  {
    "title": "Python in simple way",
    "isbn": 1234,
    "downloadable": false,
    "no_of_reviews": 5,
    "tags": [
      "language",
      "freeware",
      "programming"
    ],
    "languages": [
      "english",
      "hindi",
      "telugu"
    ]
  }
]
```

13. Select all documents where tags array contains only one element 'programming'

```
Select * from books where books.tags = ['programming']
```

1 - 1

```
[
  {
    "title": "Shell Scripting in simple way",
    "isbn": 9988,
    "downloadable": true,
    "no_of_reviews": 1,
    "tags": [
      "programming"
    ],
    "languages": [
      "english",
      "hindi",
      "tamil"
    ],
    "author": {
      "name": "Rama Ramachandran"
    }
  }
]
```

14. Select all documents where tags array is ['language','freeware','programming']

```
Select * from books where books.tags = ['language','freeware','programming']
```

1 - 2

```
[
  {
    "title": "Java in simple way",
    "isbn": 1122,
    "downloadable": true,
    "no_of_reviews": 2,
    "tags": [
      "language",
      "freeware",
      "programming"
    ],
    "languages": [
      "english",
      "hindi",
      "telugu"
    ]
  }
]
```

15. Select all documents where no_of_reviews not equal to 3

```
Select * from books where books.no_of_reviews <> 3
```

1 - 5

```
[
  {
    "title": "Linux in simple way",
    "isbn": 6677,
    "downloadable": false,
    "no_of_reviews": 1,
    "tags": [
      "os",
      "freeware",
      "shell programming"
    ],
    "languages": [
      "english",
      "hindi",
      "telugu"
    ]
  }
]
```

16. Select all documents where no_of_reviews is less than 3

```
Select * from books where books.no_of_reviews < 3
```

1 - 3

```
[
  {
    "title": "Linux in simple way",
    "isbn": 6677,
    "downloadable": false,
    "no_of_reviews": 1,
    "tags": [
      "os",
      "freeware",
      "shell programming"
    ],
    "languages": [
      "english",
      "hindi",
      "telugu"
    ]
  }
]
```

17. Select all documents where no_of_reviews is greater than equal to 3 and downloadable is true

```
Select * from books where books.no_of_reviews >= 3 and books.downloadable = true
```

1 - 2

```
{
  "title": "MongoDB in simple way",
  "isbn": 6677,
  "downloadable": true,
  "no_of_reviews": 4,
  "tags": [
    "database",
    "cloud",
    "nosql"
  ],
  "languages": [
    "english",
    "hindi",
    "telugu"
  ]
}
```

18. Select all documents where tags array contains either database or programming

```
Select * from books where ARRAY_CONTAINS(books.tags, 'database') or
ARRAY_CONTAINS(books.tags, 'programming')
```

1 - 5

```
{
  "title": "Java in simple way",
  "isbn": 1122,
  "downloadable": true,
  "no_of_reviews": 2,
  "tags": [
    "language",
    "freeware",
    "programming"
  ],
  "languages": [
    "english",
    "hindi",
    "telugu"
  ]
}
```