

DATABASE ASSIGNMENT 12

1. Find all books whose author is Faisal Abid and display name of book authors and categories

```
iacsd0324> db.book.find({authors:'Faisal Abid'},{authors:1,categories:1,_id:0})
[
  {
    authors: [ 'Tariq Ahmed with Jon Hirschi', 'Faisal Abid' ],
    categories: [ 'Internet' ]
  }
]
iacsd0324>
```

2. List all the books with category Internet at first position in category array

```
iacsd0324> db.book.find({ $expr: { $eq: [ { $arrayElemAt: [ "$categories", 0 ] }, "Internet" ] } })
[
  {
    _id: 4,
    title: 'Flex 3 in Action',
    isbn: '1933988746',
    pageCount: 576,
    publishedDate: ISODate('2009-02-02T08:00:00.000Z'),
    thumbnailUrl: 'https://s3.amazonaws.com/AKIAJC5RLADLUMVRPFDQ.book-thumb-ima
ges/ahmed.jpg',
    longDescription: "New web applications require engaging user-friendly inter
faces and the cooler, the better. With Flex 3, web developers at any skill le
vel can create high-quality, effective, and interactive Rich Internet Applicati
ons (RIAs) quickly and easily. Flex removes the complexity barrier from RIA dev
elopment by offering sophisticated tools and a straightforward programming lang
uage so you can focus on what you want to do instead of how to do it. And now t
hat the major components of Flex are free and open-source, the cost barrier is
gone, as well! Flex 3 in Action is an easy-to-follow, hands-on Flex tutorial
. Chock-full of examples, this book goes beyond feature coverage and helps you
put Flex to work in real day-to-day tasks. You'll quickly master the Flex API a
nd learn to apply the techniques that make your Flex applications stand out fro
m the crowd. Interesting themes, styles, and skins It's in there. Working
with databases You got it. Interactive forms and validation You bet. Charti
ng techniques to help you visualize data Bam! The expert authors of Flex 3 in
Action have one goal to help you get down to business with Flex 3. Fast.
Many Flex books are overwhelming to new users focusing on the complexities of
the language and the super-specialized subjects in the Flex eco-system; Flex 3
in Action filters out the noise and dives into the core topics you need every
day. Using numerous easy-to-understand examples, Flex 3 in Action gives you a s
trong foundation that you can build on as the complexity of your projects incre
ases.",
    status: 'PUBLISH',
    authors: [ 'Tariq Ahmed with Jon Hirschi', 'Faisal Abid' ],
    categories: [ 'Internet' ]
  },
  {
    _id: 6,
```

3. Change the status of books “undergoing change” for books having more than 500 pages and published in 2009

```
iacsd0324> db.book.updateMany(
...   {
...     pageCount: { $gt: 500 },
...     publishedDate: {
...       $gte: ISODate("2009-01-01"),
...       $lt: ISODate("2010-01-01")
...     }
...   },
...   { $set: { status: "undergoing change" } }
... )
{
  acknowledged: true,
  insertedId: null,
  matchedCount: 8,
  modifiedCount: 8,
  upsertedCount: 0
}
```

4. Find all the books containing word highlighting and depth in long description of the book

```
iacsd0324> db.book.find({ long_description: {$regex: /highlighting.*depth|depth
/highlighting.*depth|depth.*highlighting/i}})
```

5. Display all books published in 2009

```
iacsd0324> db.book.find({
...   publishedDate: {
...     $gte: ISODate("2009-01-01"),
...     $lt: ISODate("2010-01-01")
...   }
... })
[
  {
    _id: 1,
    title: 'Unlocking Android',
    isbn: '1933988673',
    pageCount: 416,
    publishedDate: ISODate('2009-04-01T07:00:00.000Z'),
    thumbnailUrl: 'https://s3.amazonaws.com/AKIAJCSRLADLUMVRPFDQ.book-thumb-images/ableson.jpg',
    shortDescription: "Unlocking Android: A Developer's Guide provides concise, hands-on instruction for the Android operating system and development tools. This book teaches important architectural concepts in a straightforward writing style and builds on this with practical and useful examples throughout.",
    longDescription: "Android is an open source mobile phone platform based on the Linux operating system and developed by the Open Handset Alliance, a consortium of over 30 hardware, software and telecom companies that focus on open standards for mobile devices. Led by search giant, Google, Android is designed to deliver a better and more open and cost effective mobile experience. Unlocking Android: A Developer's Guide provides concise, hands-on instruction for the Android operating system and development tools. This book teaches important architectural concepts in a straightforward writing style and builds on this with practical and useful examples throughout. Based on his mobile development experience and his deep knowledge of the arcane Android technical documentation, the author conveys the know-how you need to develop practical applications that build upon or replace any of Android's features, however small. Unlocking Android: A Develo"
  }
]
```

6. Find all books with pageCount is either 500 or 556 or 670

```
iacsd0324> db.book.find({ pageCount: { $in: [500, 556, 670] } })
[
  {
    _id: 54,
    title: 'Android in Practice',
    isbn: '1935182927',
    pageCount: 500,
    publishedDate: ISODate('2011-09-30T07:00:00.000Z'),
    thumbnailUrl: 'https://s3.amazonaws.com/AKIAJC5RLADLUMVRPFDQ.book-thumb-images/collins.jpg',
    shortDescription: 'Android in Practice is treasure trove of Android goodness, with over 100 tested, ready-to-use techniques including complete end-to-end example applications and practical tips for real world mobile application developers. Written by real world Android developers, this book addresses the trickiest questions raised in forums and mailing lists. Using an easy-to-follow problem/solution/discussion format, it dives into important topics not covered in other Android books, like advanced drawing and graphics, testing and instrumentation, building and deploying applications, using alternative languages, and native development.',
    longDescription: 'Android, Google's platform for mobile application development, provides powerful features, a robust SDK, and almost limitless possibilities. It's not hard to find the information you need to build your first Android app, but then what? If you want to build real apps for real users, you have real questions and you need real answers. Android in Practice is treasure trove of Android goodness, with over 100 tested, ready-to-use techniques including complete end-to-end example applications and practical tips for real world mobile application developers. Written by real world Android developers, this book addresses the trickiest questions raised in forums and mailing lists. Using an easy-to-follow problem/solution/discussion format, it dives into important topics not covered in other Android books, like advanced drawing and graphics, testing and instrumentation, building and deploying applications, using alternative languages, and native development. If you're new to Android, or even if you have a few cycles under your belt, you'll love the quick "pre-flight check," where you'll review key platform details and tools and the building blocks of all Android applications. Then, you'll delve into Android use cases from visual elements and style, to saving and sharing data, networking, background tasks, concurrency, and more.',
    status: 'PUBLISH',
  }
]
```

7. Add 2 categories “kindle” and “hard bind” in all the books if its pageCount >200 and < 500 or number of pages >500

```
iacsd0324> db.book.updateMany({$or: [{ pageCount: { $gt: 200, $lt: 500 } }, { pageCount: { $gt: 500 } } ]},{$addToSet: { categories: { $each: ["kindle", "hard bind"] } } })
{
  acknowledged: true,
  insertedId: null,
  matchedCount: 255,
  modifiedCount: 255,
  upsertedCount: 0
}
iacsd0324> |
```

8. List all the books which has thumbnailUrl key

9. Add key type with values ["fiction","moral stories","adventurous"] in all books whose title starts with Fl and contains a some where in the name

```
iacsd0324> db.book.updateMany(
...   {
...     title: { $regex: /^Fl/i, $regex: /some/i }
...   },
...   {
...     $set: { type: ["fiction", "moral stories", "adventurous"] }
...   }
... )
{
  acknowledged: true,
  insertedId: null,
  matchedCount: 4,
  modifiedCount: 4,
  upsertedCount: 0
}
```

10. Add a key comments :[{comment:" like the book"
,date:ISODate("2019-09-01")},

```
iacsd0324> db.book.updateMany(
...   {},
...   {
...     $set: {
...       comments: [
...         { comment: "like the book", date: ISODate("2019-09-01") }
...       ]
...     }
...   }
... )
{
  acknowledged: true,
  insertedId: null,
  matchedCount: 430,
  modifiedCount: 430,
  upsertedCount: 0
}
```

11. Add new author “myauthor” at position 2 for all books whose title starts with h or m and contains s at 2nd last position

```
iacsd0324> db.book.updateMany(
...   {
...     title: {
...       $regex: /^[h/^/i, // starts with 'h' or 'm' (case insensitive)
...       $regex: /s[^s*$/i // contains 's' at the second last position
...     }
...   },
...   {
...     $push: {
...       author: { $each: ["myauthor"], $position: 1 }
...     }
...   }
... )
{
  acknowledged: true,
  insertedId: null,
  matchedCount: 278,
  modifiedCount: 278,
  upsertedCount: 0
}
```

12. Increase pageCount by 100 for all books whose author at 1 st position is “Gal Shachor”

```
iacsd0324> db.book.updateMany( { "author.0": "Gal Shachor" }, { $inc: { pageCount: 100 } } )
{
  acknowledged: true,
  insertedId: null,
  matchedCount: 0,
  modifiedCount: 0,
  upsertedCount: 0
}
```

13. Overwrite “Magnus Rydin” with name “Fr”

```
iacsd0324> db.book.updateMany(
...   { "author": "Magnus Rydin" },
...   { $set: { "author": "Fr" } }
... )
{
  acknowledged: true,
  insertedId: null,
  matchedCount: 0,
  modifiedCount: 0,
  upsertedCount: 0
}
```