

09th July internship Mongoshell Assignment

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How many documents are there in the collection?

```
db.users.countDocuments()
```

1. Retrieve all documents where the role is "admin".

```
db.users.find( { role: "admin" } )
```

2. Find all documents where the role is "customer" and the username contains "Karamchandani".

```
db.users.find( { role: "customer", username:  
/Karamchandani/ } )
```

3. Retrieve the document with the username "Sumanth Rao".

```
db.users.find( { username: "Sumanth Rao" } )
```

4. Find all documents where the user's first name starts with "R".

```
db.users.find({ firstName: /^R/ })
```

5. Retrieve all documents where the user has the skill "Python".

```
db.users.find({ skills: "Python" })
```

6. Find all documents where the user has the skill "Java" and "Python".

```
db.users.find({ skills: { $all: ["Java", "Python"] } })
```

7. Retrieve all documents where the user's first name is "Aryan" or the last name is "Gupta".

```
db.users.find({ $or: [{ firstName: "Aryan" }, { lastName: "Gupta" }] })
```

8. Find all documents where the user has the skill "Java" but not "Python".

```
db.users.find({ skills: "Java", skills: { $ne: "Python" } })
```

9. Retrieve all documents where the user's last name is "Sharma" and the role is "customer".

```
db.users.find( { lastName:"Sharma", role:
"customer" } )
```

10. Find all documents where the user has exactly three skills.

```
db.users.find( { skills: { $size: 3 } } )
```

11. Retrieve all documents where the user's first name starts with "S" and the role is "admin".

```
db.users.find( { firstNamefirstName: /^S/, role:
"admin" } )
```

12. Find all documents where the user has the skill "Java" and the role is not "admin".

```
db.users.find( { skills: "Java", role: { $ne: "admin"
} } )
```

13. Retrieve all documents where the user's role is not specified.

```
db.users.find( { role: { $exists: false } } )
```

14. Find all documents where the user has at least four skills.

```
db.users.find({ $expr: { $gte: [ { $size: "$skills" }, 4] } })
```

15. Retrieve all documents where the user's role is "customer" and the user has no specified skills.

```
db.users.find({ role: "customer", skills: { $exists: false } })
```

16. Find all documents where the user's email contains "regexsoftware.com".

```
db.users.find({ useremail: /regexsoftware.com$/ })
```

17. Retrieve all documents where the user's email does not contain "gmail.com".

```
db.users.find({ useremail: { $not: /gmail.com/ } })
```

18. Find all documents where the user's last name is not "Singh".

```
db.users.find({ lastName: { $ne: "Singh" } })
```

19. Retrieve all documents where the user's role is "admin" and the user has the skill "Java".

```
db.users.find( { role: "admin", skills: "Java" } )
```

20. Find all documents where the user's first name is "Ananya" and the user's role is "customer".

```
db.users.find( { firstName: "Ananya",  
role: "customer" } )
```

21. Retrieve all documents where the user's role is "admin" and the user has at least one skill.

```
db.users.find( { role: "admin", skills: { $exists:  
true, $ne: [] } } )
```

22. Find all documents where the user's role is "admin" and the user's first name starts with "R".

```
db.users.find( { role: "admin", firstName: /^R/ } )
```

23. Retrieve all documents where the user's role is "customer" and the user's last name is "Patel".

```
db.users.find( { role: "customer", lastName:  
"Patel" } )
```

24. Find all documents where the user's role is "admin" and the user has the skill "Python".

```
db.users.find( { role: "admin", skills: "Python" } )
```

25. Retrieve all documents where the user's role is "customer" and the user's last name is not "Gupta".

```
db.users.find( { role: "customer", lastName: { $ne: "Gupta" } } )
```

26. Find all documents where the user's role is "admin" and the user's email ends with "@regexsoftware.com".

```
db.users.find( { role: "admin", useremail: /@regexsoftware.com$/ } )
```

27. Retrieve all documents where the user's role is "customer" and the user has the skill "React".

```
db.users.find( { role: "customer", skills: "React" } )
```

28. Find all documents where the user's role is "customer" and the user has the skill "SQL".

```
db.users.find( { role: "customer", skills: "SQL" } )
```

29. Retrieve all documents where the user's role is "admin" and the user has at least three skills.

```
db.users.find( { role: "admin", $expr: { $gte: [ { $size: "$skills" }, 3] } } )
```

30. Find all documents where the user's role is "customer" and the user has the skills "Java" and "C++".

```
db.users.find( { role: "customer", skills: { $all: ["Java", "C++"] } } )
```

31. Retrieve all documents where the user's role is "admin" and the user's email does not contain "gmail.com".

```
db.users.find( { role: "admin", useremail: { $not: /gmail.com/ } } )
```

32. Find all documents where the user's role is "customer" and the user's last name starts with

"M".

```
db.users.find( { role: "customer", lastName: /^M/
})
```

33. Retrieve all documents where the user's role is "admin" and the user's first name is not "Rahul".

```
db.users.find( { role: "admin", firstName: { $ne:
"Rahul" } })
```

34. Find all documents where the user's role is "customer" and the user's email does not contain "gmail.com".

```
db.users.find( { role: "customer", email: { $not:
/gmail.com/ } })
```

35. Retrieve all documents where the user's role is "admin" and the user has the skill "Java" but not "JavaScript".

```
db.users.find( { $and: [ { role: "admin" }, { skills:
"Java" }, { skills: { $ne: "JavaScript" } } ] })
```

36. Find all documents where the user's role is "customer" and the user's first name is not "Ananya".


```
db.users.find({ role: "customer", firstName: { $ne: "Ananya" } })
```

37. Retrieve all documents where the user's role is "admin" and the user's email contains "regexsoftware.com".

```
db.users.find({ role: "admin", useremail: /regexsoftware.com/ })
```

38. Find all documents where the user's role is "customer" and the user has the skill "HTML" but not "CSS".

```
db.users.find({ role: "customer", $and: [{ skills: "HTML" }, { skills: { $ne: "CSS" } }] })
```

39. Retrieve all documents where the user's role is "admin" and the user has the skill "Java" and "JavaScript".

```
db.users.find({ role: "admin", skills: { $all: ["Java", "JavaScript"] } })
```

40. Find the average age of users.

41. Find all female users from Jaipur who know Python.

```
db.users.find({ gender: "female", city: "Jaipur",  
skills: "Python" })
```

42. Find all male users in Delhi who are above age 26

```
db.users.find({ gender: "male", city: "Delhi", age:  
{ $gt: 26 } })
```

43. Find all users who are from either New Delhi or Mumbai.

```
db.users.find({ city: { $in: ["New Delhi",  
"Mumbai"] } })
```

44. Find all users who have the same last name.

```
db.users.aggregate([  
  { $group: { _id: "$lastName", count: { $sum: 1  
  } } },  
  { $match: { count: { $gt: 1 } } } ]
```

])

45. Find the count of users in each city.

```
db.users.aggregate([  
  { $group: { _id: "$city", count: { $sum: 1 } } }  
])
```

46. How many users are from New Delhi?

```
db.users.countDocuments({ city: "New Delhi" })
```

47. How many Female users are from Jaipur?

```
db.users.countDocuments({ gender: "female",  
city: "Jaipur" })
```

48. How many Male users are there in Delhi who have skills Java?

```
db.users.countDocuments({ gender: "male", city:  
"Delhi", skills: "Java" })
```

49. How many users are from Hyderabad having age greater than 24 and have skill Python,C++

```
db.users.countDocuments({ city: "Hyderabad",  
age: { $gt: 24 }, skills: { $all: ["Python", "C++"] }  
})
```

50. How many female users are from Goa having age greater than 24 and have skill Python,C++

```
db.users.countDocuments({ gender: "female",  
city: "Goa", age: { $gt: 24 }, skills: { $all:  
["Python", "C++"] } })
```