

## Title: Relational & Logical Operators

Aim: Reading the documents using find() with relational and logical operators

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NoSQL Lab 2  
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Q1) imagine a job application portal, Naukri, find suitability of IT professional with Qualifications: Bsc, Msc and Specialisation as Data Science.

Q2) Display eligible candidates who satisfy dual degree in undergraduation. Display the name and graduation information as the output.

### Switching the database

```
test> show dbs
Person    168.00 KiB
Sourabh   72.00 KiB
admin     40.00 KiB
config    84.00 KiB
local     72.00 KiB
practical 40.00 KiB
test      72.00 KiB
test> use Person
switched to db Person
Person> show collections
Family
Media
Media_Details
Person
Student
```

### Creating a new collection

```
Person> db.createCollection("Naukri")
{ ok: 1 }
```

### Inserting Documents into the Collection

```
Person> db.Naukri.insertOne({Username: "krishagarwal21112016",
...   FirstName: "Krish",
...   LastName: "Agarwal",
...   ContactInfo: [{emailID: "krish.agarwal@bds.christuniversity.in"},
...   {phoneNum: 6383288832}],
...   Bio: "Aspiring Data Analyst",
...   status: "Open to Work",
...   Connections: 252,
...   Activity: {TimeSpent: 25423, NumOfLikes: 2454, NumofCom: 412, NumofShares: 2355,
...   Posts: [{PostNum: 1, Caption: "Check out my recent project on Github!", likes: 324,
...   shares: 352, comments: [{CommentNum: 1, Text: "Damn Cool project!", likes: 36}, {Comme
ntNum: 2, Text: "That seems tough to beat", likes: 99}]}]},
...   CertificatesLicenses: [{Title: "Data Science", Company: "Coursera", StartDate: Dat
e(2022-04-18), EndDate: Date(2022-05-18), CertificateNum: 324867238}],
...   CV: {Name: "Krish Agarwal", ContactInfo: [{emailID: "krish.agarwal@bds.christuniver
sity.in"}, {phoneNum: 7432672343}], Age: 21, Content: "Enter Text here. Blah Blah", Qua
lifications: {UG: {degree: "Data Science", gpa: 3.78}, PG: {degree: "Acturial Science",
gpa: 3.72}},
...   InterestsHobbies: ["Cricket", "Volleyball"],
...   Domain: "IT"}})
```

```
Person> db.Naukri.insertOne({Username: "harshithav21112041",
...   FirstName: "Harshitha",
...   LastName: "Vemulapalli",
...   ContactInfo: [{emailID: "harshitha.vemulapalli@bds.christuniversity.in"},
...   {phoneNum: 5327542754}],
...   Bio: "Human Resource Manager",
...   status: "Open to Work",
...   Connections: 1098,
...   Activity: {TimeSpent: 983467, NumOfLikes: 235235, NumofCom: 72424, NumofShares: 241
...   Posts: [{PostNum: 1, Caption: "Check out my recent project on Github!", likes: 324,
...   shares: 352, comments: [{CommentNum: 1, Text: "Damn Cool project!", likes: 36}, {Comme
ntNum: 2, Text: "That seems tough to beat", likes: 99}]}]},
...   CertificatesLicenses: [{Title: "Managing Employees 101", Company: "Coursera", Star
tDate: Date(2022-04-18), EndDate: Date(2022-05-18), CertificateNum: 34622554}],
...   CV: {Name: "Harshitha Vemulapalli", ContactInfo: [{emailID: "harshitha.vemulapalli@
bds.christuniversity.in"}, {phoneNum: 5327542754}], Age: 31, Content: "Enter Text here.
Blah Blah", Qualifications: {UG: {degree: "BBA", gpa: 3.78}, PG: {degree: "MBA", gpa:
3.72}}},
...   InterestsHobbies: ["Cricket", "Volleyball"],
...   Domain: "IT"}})
```

```

Person> db.Naukri.insertOne({Username: "rickyk21112021",
...  FirstName: "Ricky",
...  LastName: "Kapulla",
...  ContactInfo: [{emailID: "ricky.kapulla@bds.christuniversity.in"},
...  {phoneNum: 743656245}],
...  Bio: "Senior Manager",
...  status: "Open to Hiring",
...  Connections: 2091,
...  Activity: {TimeSpent: 983467, NumOfLikes: 235235, NumofCom: 72424, NumofShares: 241
...  },
...  Posts: [{PostNum: 1, Caption: "Check out my recent project on Github!", likes: 324,
...  shares: 352, comments: [{CommentNum: 1, Text: "Damn Cool project!", likes: 36}, {Comme
...  CommentNum: 2, Text: "That seems tough to beat", likes: 99}]}]},
...  CertttificatesLicenses: [{Title: "Entrepreunership", Company: "Coursera", StartDate:
...  Date(2022-04-18), EndDate: Date(2022-05-18), CertificateNum: 63452345}],
...  CV: {Name: "Ricky Kapulla", ContactInfo: [{emailID: "ricky.kapulla@bds.christuniver
...  sity.in"}, {phoneNum: 743656245}], Age: 41, Content: "Enter Text here. Blah Blah", Qual
...  Qualifications: {UG: {degree: "BBA", gpa: 3.78}, PG: {degree: "MBA", gpa: 3.72}},
...  InterestsHobbies: ["Cricket", "Volleyball"],
...  Domain: "Finance"}}})

```

## Collection

```

Person> db.Naukri.find()
[
  {
    _id: ObjectId("63db51a1135614bb571e639a"),
    Username: 'krishagarwal21112016',
    FirstName: 'Krish',
    LastName: 'Agarwal',
    ContactInfo: [
      { emailID: 'krish.agarwal@bds.christuniversity.in' },
      { phoneNum: 6383288832 }
    ],
    Bio: 'Aspiring Data Analyst',
    status: 'Open to Work',
    Connections: 252,
    Activity: {
      TimeSpent: 25423,
      NumOfLikes: 2454,
      NumofCom: 412,
      NumofShares: 2355,
      Posts: [
        {
          PostNum: 1,
          Caption: 'Check out my recent project on Github!',
          likes: 324,
          shares: 352,
          comments: [
            { CommentNum: 1, Text: 'Damn Cool project!', likes: 36 },
            {
              CommentNum: 2,
              Text: 'That seems tough to beat',
              likes: 99
            }
          ]
        }
      ]
    },
    CertttificatesLicenses: [
      {
        Title: 'Data Science',
        Company: 'Coursera',
        StartDate: 'Thu Feb 02 2023 11:31:05 GMT+0530 (India Standard Time)',
        EndDate: 'Thu Feb 02 2023 11:31:05 GMT+0530 (India Standard Time)',
        CertificateNum: 324867238
      }
    ],
    CV: {
      Name: 'Krish Agarwal',
      ContactInfo: [
        { emailID: 'krish.agarwal@bds.christuniversity.in' },
        { phoneNum: 7432672343 }
      ],
      Age: 21,
      Content: 'Enter Text here. Blah Blah',
      Qualifications: {
        UG: { degree: 'Data Science', gpa: 3.78 },
        PG: { degree: 'Acturial Science', gpa: 3.72 }
      },
      InterestsHobbies: [ 'Cricket', 'Volleyball' ],
      Domain: 'IT'
    }
  },
  {

```

**Q1) imagine a job application portal, Naukri, find suitability of IT professional with Qualifications: Bsc, Msc and Specialisation as Data Science.**

**Code:**

```
db.Naukri.find({$and: [{"CV.Domain": "IT"},
{$or: [{"CV.Qualifications.UG.degree": "Data Science"}, {"CV.Qualifications.PG.degree": "Data Science"}]}}
))
```

```

Person> db.Naukri.find({$and: [{CV.Domain": "IT"}],
... {$or: [{CV.Qualifications.UG.degree": "Data Science"}, {CV.Qualifications.PG.degree": "Data Science"}]}
... })
[
  {
    _id: ObjectId("63db51a1135614bb571e639a"),
    Username: 'krishagarwal21112016',
    FirstName: 'Krish',
    LastName: 'Agarwal',
    ContactInfo: {
      emailID: 'krish.agarwal@bds.christuniversity.in',
      phoneNum: 6383288832
    },
    Bio: 'Aspiring Data Analyst',
    status: 'Open to Work',
    Connections: 252,
    Activity: {
      TimeSpent: 25423,
      NumOfLikes: 2454,
      NumofCom: 412,
      NumofShares: 2355,
      Posts: [
        {
          PostNum: 1,
          Caption: 'Check out my recent project on Github!',
          likes: 324,
          shares: 352,
          comments: [
            { CommentNum: 1, Text: 'Damn Cool project!', likes: 36 },
            {
              CommentNum: 2,
              Text: 'That seems tough to beat',
              likes: 99
            }
          ]
        }
      ]
    },
    CertificatesLicenses: [
      {
        Title: 'Data Science',
        Company: 'Coursera',
        StartDate: 'Thu Feb 02 2023 11:31:05 GMT+0530 (India Standard Time)',
        EndDate: 'Thu Feb 02 2023 11:31:05 GMT+0530 (India Standard Time)',
        CertificateNum: 324867238
      }
    ],
    CV: {
      Name: 'Krish Agarwal',
      ContactInfo: {
        emailID: 'krish.agarwal@bds.christuniversity.in',
        phoneNum: 7432672343
      },
      Age: 21,
      Content: 'Enter Text here. Blah Blah',
      Qualifications: {
        UG: { degree: 'Data Science', gpa: 3.78 },
        PG: { degree: 'Acturial Science', gpa: 3.72 }
      },
      InterestsHobbies: [ 'Cricket', 'Volleyball' ],
      Domain: 'IT'
    }
  },
  {
  }
]

```

**Q2) Display eligible candidates who satisfy dual degree in undergraduation. Display the name and graduation information as the output.**

**Code:**

```
db.Naukri.find({"CV.Qualifications.DualDegree": "Yes"},
{"CV.Name": 1, "CV.Qualifications": 1, "_id": 0}
)
```

```
Person> db.Naukri.find({"CV.Qualifications.DualDegree": "Yes"},
... {"CV.Name": 1, "CV.Qualifications": 1, "_id": 0}
... )
[
  {
    CV: {
      Name: 'Sneha Gupta',
      Qualifications: {
        UG: { degree: 'Economics and Analytics', gpa: 3.78 },
        PG: { degree: 'Data Science', gpa: 3.72 },
        DualDegree: 'Yes'
      }
    }
  }
]
```