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Query to show a list of documents in the houses collections

```
Atlas atlas-whx0uc-shard-0 [primary] web335DB> db.houses.find()
[
  {
    _id: ObjectId("6322fbd13f8f4ce273793f93"),
    mascot: 'Lion',
    founder: 'Godric Gryffindor',
    houseId: 'h1007'
  },
  {
    _id: ObjectId("6322fbd13f8f4ce273793f94"),
    mascot: 'Badger',
    founder: 'Helga Hufflepuff',
    houseId: 'h1008'
  },
  {
    _id: ObjectId("6322fbd13f8f4ce273793f95"),
    mascot: 'Eagle',
    founder: 'Rowena Ravenclaw',
    houseId: 'h1009'
  },
  {
    _id: ObjectId("6322fbd13f8f4ce273793f96"),
    mascot: 'Snake',
    founder: 'Salazar Slytherin',
    houseId: 'h1010'
  }
]
Atlas atlas-whx0uc-shard-0 [primary] web335DB>
```

Query to show a list of documents in the student's collections

```
Atlas atlas-whx0uc-shard-0 [primary] web335DB> db.students.find()
[
  {
    _id: ObjectId("6322fbd13f8f4ce273793f97"),
    firstName: 'Albus',
    lastName: 'Dumbledore',
    studentId: 's1007',
    houseId: 'h1007'
  },
  {
    _id: ObjectId("6322fbd13f8f4ce273793f98"),
    firstName: 'Minerva',
    lastName: 'McGonagall',
    studentId: 's1008',
    houseId: 'h1007'
  },
  {
    _id: ObjectId("6322fbd13f8f4ce273793f99"),
    firstName: 'Hagrid',
    lastName: 'Rubeus',
    studentId: 's1009',
    houseId: 'h1007'
  },
  {
    _id: ObjectId("6322fbd13f8f4ce273793f9a"),
    firstName: 'Bridget',
    lastName: 'Wenlock',
    studentId: 's1010',
    houseId: 'h1008'
  },
  {
    _id: ObjectId("6322fbd13f8f4ce273793f9b"),
    firstName: 'Cedric',
    lastName: 'Diggory',
    studentId: 's1011',
    houseId: 'h1008'
  },
  {
    _id: ObjectId("6322fbd13f8f4ce273793f9c"),
    firstName: 'Hannah',
    lastName: 'Abbott',
    studentId: 's1012',
    houseId: 'h1008'
  },
]
```

Query to add a document to the student's collections

```
Atlas atlas-whx0uc-shard-0 [primary] web335DB> db.students.insertOne({ firstName: 'Mabel', lastName: 'Phil',
studentId: 's1223', houseId: 'h1118'})
{
  acknowledged: true,
  insertedId: ObjectId("632303053f8f4ce273793fa3")
}
```

Query to display the new doc added.

```
Atlas atlas-whx0uc-shard-0 [primary] web335DB> db.students.findOne({firstName: 'Mabel'})
{
  _id: ObjectId("632303053f8f4ce273793fa3"),
  firstName: 'Mabel',
  lastName: 'Phil',
  studentId: 's1223',
  houseId: 'h1118'
}
```

Query to delete the doc created

```
Atlas atlas-whx0uc-shard-0 [primary] web335DB> db.students.deleteOne({firstName:"Mabel"})
{ acknowledged: true, deletedCount: 1 }
```

Query to prove doc is no longer there

```
Atlas atlas-whx0uc-shard-0 [primary] web335DB> db.students.findOne({firstName: 'Mabel'})
null
```

Aggregate query to show list of students by house

```
Atlas atlas-whx0uc-shard-0 [primary] web335DB> db.houses.aggregate([{$lookup:{ from:"students", localField:"houseId",
foreignField:"houseId", as:"students" }}}])
[
  {
    _id: ObjectId("6322fbd13f8f4ce273793f93"),
    mascot: 'Lion',
    founder: 'Godric Gryffindor',
    houseId: 'h1007',
    students: [
      {
        _id: ObjectId("6322fbd13f8f4ce273793f97"),
        firstName: 'Albus',
        lastName: 'Dumbledore',
        studentId: 's1007',
        houseId: 'h1007'
      },
      {
        _id: ObjectId("6322fbd13f8f4ce273793f98"),
        firstName: 'Minerva',
        lastName: 'McGonagall',
        studentId: 's1008',
        houseId: 'h1007'
      },
      {
        _id: ObjectId("6322fbd13f8f4ce273793f99"),
        firstName: 'Hagrid',
        lastName: 'Rubeus',
        studentId: 's1009',
        houseId: 'h1007'
      }
    ]
  },
  {
    _id: ObjectId("6322fbd13f8f4ce273793f94"),
    mascot: 'Badger',
    founder: 'Helga Hufflepuff',
    houseId: 'h1008',
    students: [
      {
        _id: ObjectId("6322fbd13f8f4ce273793f9a"),
        firstName: 'Bridget',
        lastName: 'Wenlock',
        studentId: 's1010',
        houseId: 'h1008'
      }
    ]
  }
]
```

Aggregate query to show a list of students for house of Gryffind

```
Atlas atlas-whx0uc-shard-0 [primary] web335DB> db.houses.aggregate([{$match : {houseId:"h1007"}}, {$lookup:{from:"students",localField:"houseId",foreignField:"houseId",as:"house_Griff_students"} }])
[
  {
    _id: ObjectId("6322fbd13f8f4ce273793f93"),
    mascot: 'Lion',
    founder: 'Godric Gryffindor',
    houseId: 'h1007',
    house_Griff_students: [
      {
        _id: ObjectId("6322fbd13f8f4ce273793f97"),
        firstName: 'Albus',
        lastName: 'Dumbledore',
        studentId: 's1007',
        houseId: 'h1007'
      },
      {
        _id: ObjectId("6322fbd13f8f4ce273793f98"),
        firstName: 'Minerva',
        lastName: 'McGonagall',
        studentId: 's1008',
        houseId: 'h1007'
      },
      {
        _id: ObjectId("6322fbd13f8f4ce273793f99"),
        firstName: 'Hagrid',
        lastName: 'Rubeus',
        studentId: 's1009',
        houseId: 'h1007'
      }
    ]
  }
]
Atlas atlas-whx0uc-shard-0 [primary] web335DB>
```

Query to show a list of students for the Eagle mascot using \$match and \$lookup

```
Atlas atlas-whx0uc-shard-0 [primary] web335DB> db.houses.aggregate([{$match:{mascot:"Eagle"}},{ $lookup:{from:"students",
localField:"houseId",foreignField:"houseId",as:"eagle_mascot_student"}}])
[
  {
    _id: ObjectId("6322fbd13f8f4ce273793f95"),
    mascot: 'Eagle',
    founder: 'Rowena Ravenclaw',
    houseId: 'h1009',
    eagle_mascot_student: [
      {
        _id: ObjectId("6322fbd13f8f4ce273793f9d"),
        firstName: 'Luna',
        lastName: 'Lovegood',
        studentId: 's1013',
        houseId: 'h1009'
      },
      {
        _id: ObjectId("6322fbd13f8f4ce273793f9e"),
        firstName: 'Sybill',
        lastName: 'Trelawney',
        studentId: 's1014',
        houseId: 'h1009'
      },
      {
        _id: ObjectId("6322fbd13f8f4ce273793f9f"),
        firstName: 'Cho',
        lastName: 'Chang',
        studentId: 's1015',
        houseId: 'h1009'
      }
    ]
  }
]
```