MongoDB

You can try MongoDB via the link below:
https://cs.rit.edu/~mmior/csci-320/scenarios/mongodb.html

For the examples below, you should try to write the query yourself before looking at the solution. Note that I will not expect you to write complex queries involving aggregation, but I may ask you to explain some. This a simpler task than it is with SQL queries since you only need to understand what each stage does. If you want to understand a query using aggregation, try entering in the stages one at a time.

Some of these queries are much more complicated than I would expect you to be able to grasp in this course and they get more complicated as you go down the list, so don't be discouraged if you don't understand some of the later queries.

Find the capital of all countries using the currency USD in descending order by area.

```
db.country.find({currency: 'USD'}, {'capital': 1}).sort({area: -1})
```

Find the common name of all countries bordering the USA.

```
db.country.find({borders: 'USA'}, {'name.common': 1})
```

Find the official names of all countries with area between 10,000 and 20,000.

```
db.country.find({area: {$gt: 10000, $lt: 20000}}, {'name.official: 1})
```

Find the total area of countries by region in order by region name.

```
db.country.aggregate([
  {$group: {_id: '$region', totalArea: {$sum: '$area'}}},
  {$sort: {_id: 1}}
])
```

Find the total number of countries using each calling code ordered by the most common.
Note: {$sum: 1} is a way to count the documents within a group.

```
db.country.aggregate([
  {$project: '$callingCode'},
  {$unwind: '$callingCode'},
  {$group: {_id: '$callingCode', count: {$sum: 1}}},
  {$sort: {count: 1}}
])
```

Find the total areas of countries which border Brazil.

```
db.country.aggregate([
  {$match: {'name.common': 'Brazil’}},
  {$lookup: {
    from: 'country',
    localField:'borders',
    foreignField: 'altSpellings',
    as: 'borderingCountries'}},
  {$project: {
    'name.common': 1, borderingArea:
    '$borderingCountries.area'}},
  {$unwind: '$borderingArea'},
  {$group: {_id: '$_id', totalArea: {$sum: '$borderingArea'}}}
])
```