

Data sample: *earthquakes.json*

Source: These data are excerpted from this [NOAA resource data site](https://ngdc.noaa.gov/nndc/struts/form?t=101650&s=1&d=1)

(<https://ngdc.noaa.gov/nndc/struts/form?t=101650&s=1&d=1>) and converted to JSON.

```
[ {
  "_id": "4116",
  "YEAR": 1957,
  "MONTH": 3,
  "DAY": 9,
  "EQ_MAG": 9.1,
  "COUNTRY": "USA",
  "STATE": "AK",
  "LOCATION_NAME": "ALASKA"
},
{
  "_id": "5663",
  "YEAR": 2002,
  "MONTH": 11,
  "DAY": 3,
  "EQ_MAG": 8.5,
  "COUNTRY": "USA",
  "STATE": "AK",
  "LOCATION_NAME": "ALASKA:  SLANA, MENTASTA LAKE, FAIRBANKS"
},
{
  "_id": "4311",
  "YEAR": 1964,
  "MONTH": 3,
  "DAY": 28,
  "EQ_MAG": 8.4,
  "COUNTRY": "USA",
  "STATE": "AK",
  "LOCATION_NAME": "ALASKA"
},
{
  "_id": "2580",
  "YEAR": 1900,
  "MONTH": 10,
  "DAY": 9,
  "EQ_MAG": 8.3,
  "COUNTRY": "USA",
  "STATE": "AK",
  "LOCATION_NAME": "ALASKA:  KODIAK ISLAND"
},
{
  "_id": "2656",
  "YEAR": 1903,
  "MONTH": 6,
  "DAY": 2,
  "EQ_MAG": 8.3,
  "COUNTRY": "USA",
  "STATE": "AK",
  "LOCATION_NAME": "ALASKA:  SOUTHWEST"
},
}
```

```
{
  "_id": "2690",
  "YEAR": 1904,
  "MONTH": 8,
  "DAY": 27,
  "EQ_MAG": 8.3,
  "COUNTRY": "USA",
  "STATE": "AK",
  "LOCATION_NAME": "ALASKA: RAMPART"
},
{
  "_id": "2804",
  "YEAR": 1907,
  "MONTH": 4,
  "DAY": 15,
  "EQ_MAG": 8.3,
  "COUNTRY": "MEXICO",
  "STATE": "",
  "LOCATION_NAME": "MEXICO: GUERRERO"
} ]
```

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Here is the mongoimport command:

```
mongoimport --db del23 --collection earthquakes --host class-mongodb.cims.nyu.edu
--username del23 --password xxx --type json --file earthquakes.json --jsonArray
```

Answer the following questions by writing queries to display the results.

1. How many earthquakes occurred in Mexico?
2. List the five worst earthquakes (greatest magnitude) in Mexico in this file; display the location, year and strength for each one.
3. List the three worst earthquakes in Alaska along with the year, location and magnitude.
4. How many earthquakes occurred in California, Oregon, Washington and Alaska? Answer this query using the STATE key values.
5. List the year, location and magnitude for recorded earthquakes that occurred in Canada before 1960 in chronological order.
6. Write two additional queries of your choice and describe the results in one or two sentences in your comments.