

7.Problem Statement 7 (Map Reduce)

Create Book Collection with (Title, Author_name, Borrowed_status) as fields. Write Map Reduce Functions for following requirements.

1. Display Author wise list of books.
 2. Display Author wise list of books having Borrowed status as "True".
 3. Display Author wise list of books having price greater than 300.
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1. creating database

```
test> use sahaddevdb
switched to db sahaddevdb
sahadevdb> db.createCollection("books")
{ ok: 1 }
sahadevdb> db.books.insertMany([
  { "Title": "The Great Gatsby", "Author_name": "F. Scott Fitzgerald",
    "Borrowed_status": "True", "Price": 350 },
  { "Title": "To Kill a Mockingbird", "Author_name": "Harper Lee",
    "Borrowed_status": "False", "Price": 200 },
  { "Title": "1984", "Author_name": "George Orwell", "Borrowed_status": "True",
    "Price": 400 },
  { "Title": "Moby Dick", "Author_name": "Herman Melville", "Borrowed_status": "False", "Price": 250 },
  { "Title": "Brave New World", "Author_name": "Aldous Huxley", "Borrowed_status": "True", "Price": 320 }
]);
{
  acknowledged: true,
  insertedIds: {
    '0': ObjectId('672ef44d53b37311a70d8190'),
    '1': ObjectId('672ef44d53b37311a70d8191'),
    '2': ObjectId('672ef44d53b37311a70d8192'),
    '3': ObjectId('672ef44d53b37311a70d8193'),
    '4': ObjectId('672ef44d53b37311a70d8194')
  }
}
sahadevdb> db.books.mapReduce(
function() {
  emit(this.Author_name, this.Title);
},
function(key, values) {
  return values;
},
{
  out: { inline: 1 }
}
);

sahadevdb> db.books.mapReduce(
function() {
  if (this.Borrowed_status === "True") {
    emit(this.Author_name, this.Title);
  }
},
function(key, values) {
  return values;
}
```

```

    },
    {
      out: { inline: 1 }
    }
  );

```

```

sahadevdb> db.books.mapReduce(
  function() {
    if (this.Price > 300) {
      emit(this.Author_name, this.Title);
    }
  },
  function(key, values) {
    return values;
  },
  {
    out: { inline: 1 }
  }
);

```

```

sahadevdb> db.author_books.find();
[
  { _id: 'Harper Lee', value: [ 'To Kill a Mockingbird' ] },
  { _id: 'Herman Melville', value: [ 'Moby Dick' ] },
  { _id: 'Aldous Huxley', value: [ 'Brave New World' ] },
  { _id: 'F. Scott Fitzgerald', value: [ 'The Great Gatsby' ] },
  { _id: 'George Orwell', value: [ '1984' ] }
]

```

```

sahadevdb> db.author_books_above_300.find();
[
  { _id: 'George Orwell', value: [ '1984' ] },
  { _id: 'F. Scott Fitzgerald', value: [ 'The Great Gatsby' ] },
  { _id: 'Aldous Huxley', value: [ 'Brave New World' ] }
]

```

```

sahadevdb> db.author_borrowed_books.find();
[
  { _id: 'George Orwell', value: [ '1984' ] },
  { _id: 'Aldous Huxley', value: [ 'Brave New World' ] },
  { _id: 'F. Scott Fitzgerald', value: [ 'The Great Gatsby' ] }
]

```