**Practical 11**

**::: Map-Reduce :::**

Microsoft Windows [Version 10.0.19045.6332]

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C:\Program Files\MongoDB\Server\8.2\bin>mongosh

Current Mongosh Log ID: 68e7821149d0ce00cecebea3

Connecting to: mongodb://127.0.0.1:27017/?directConnection=true&serverSelectionTimeoutMS=2000&appName=mongosh+2.5.8

Using MongoDB: 8.2.0

Using Mongosh: 2.5.8

For mongosh info see: https://www.mongodb.com/docs/mongodb-shell/

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The server generated these startup warnings when booting

2025-09-29T15:16:41.231+05:30: Access control is not enabled for the database. Read and write access to data and configuration is unrestricted

------

test> use Cars;

switched to db Cars

Cars> db.Models.find();

[

{

\_id: ObjectId('68e781ca05e2f4f0a231e1fc'),

Company: 'Ferrari',

Model: '812 Superfast',

Horsepower: '789 hp',

Torque: '530 lb-ft',

'Transmission Type': '7-speed automatic',

Drivetrain: 'RWD',

'Fuel Economy': '13/20 mpg',

'Number of Doors': 2,

Price: '$366,712',

'Model Year Range': '2018 - Present',

'Body Type': 'Coupe',

'Engine Type': '6.5L V12',

'Number of Cylinders': 12

},

{

\_id: ObjectId('68e781ca05e2f4f0a231e1fd'),

Company: 'Ferrari',

Model: 'F8 Tributo',

Horsepower: '710 hp',

Torque: '568 lb-ft',

'Transmission Type': '7-speed automatic',

Drivetrain: 'RWD',

'Fuel Economy': '15/19 mpg',

'Number of Doors': 2,

Price: '$276,550',

'Model Year Range': '2020 - Present',

'Body Type': 'Coupe',

'Engine Type': '3.9L V8',

'Number of Cylinders': 8

},

{

\_id: ObjectId('68e781ca05e2f4f0a231e1fe'),

Company: 'Ferrari',

Model: 'Roma',

Horsepower: '611 hp',

Torque: '560 lb-ft',

'Transmission Type': '8-speed automatic',

Drivetrain: 'RWD',

'Fuel Economy': '16/24 mpg',

'Number of Doors': 2,

Price: '$218,750',

'Model Year Range': '2021 - Present',

'Body Type': 'Coupe',

'Engine Type': '3.9L V8',

'Number of Cylinders': 8

},

{

\_id: ObjectId('68e781ca05e2f4f0a231e1ff'),

Company: 'Ferrari',

Model: 'Portofino M',

Horsepower: '612 hp',

Torque: '561 lb-ft',

'Transmission Type': '8-speed automatic',

Drivetrain: 'RWD',

'Fuel Economy': '16/22 mpg',

'Number of Doors': 2,

Price: '$254,475',

'Model Year Range': '2021 - Present',

'Body Type': 'Convertible',

'Engine Type': '3.9L V8',

'Number of Cylinders': 8

},

{

\_id: ObjectId('68e781ca05e2f4f0a231e200'),

Company: 'Ferrari',

Model: 'SF90 Stradale',

Horsepower: '986 hp',

Torque: '590 lb-ft',

'Transmission Type': '8-speed automatic',

Drivetrain: 'AWD',

'Fuel Economy': '18 mpg (combined)',

'Number of Doors': 2,

Price: '$625,000',

'Model Year Range': '2020 - Present',

'Body Type': 'Coupe',

'Engine Type': '4.0L V8',

'Number of Cylinders': 8

},

{

\_id: ObjectId('68e781ca05e2f4f0a231e201'),

Company: 'Ferrari',

Model: '488 Pista',

Horsepower: '711 hp',

Torque: '568 lb-ft',

'Transmission Type': '7-speed automatic',

Drivetrain: 'RWD',

'Fuel Economy': '15/20 mpg',

'Number of Doors': 2,

Price: '$350,050',

'Model Year Range': '2019 - 2020',

'Body Type': 'Coupe',

'Engine Type': '3.9L V8',

'Number of Cylinders': 8

}

]

Cars> db.Models.count();

DeprecationWarning: Collection.count() is deprecated. Use countDocuments or estimatedDocumentCount.

404

Cars> var map = function(){emit(this.Torque,this.Price)}

Cars> var reduce = function(Torque,Price){return Array.sum(price)}

Cars> db.Models.mapReduce(map,reduce,{out:'Torq'})

DeprecationWarning: Collection.mapReduce() is deprecated. Use an aggregation instead.

See https://mongodb.com/docs/manual/core/map-reduce for details.

Uncaught:

MongoServerError[JSInterpreterFailure]: Executor error during MapReduce command on namespace: Cars.Models :: caused by :: ReferenceError: price is not defined :

@:1:42

Cars> var reduce = function(Torque,Price){return Array.sum(Price)}

Cars> db.Models.mapReduce(map,reduce,{out:'Torq'})

{ result: 'Torq', ok: 1 }

Cars> db.Torq.find()

[

{ \_id: 151, value: '$26,830' },

{ \_id: '263 lb-ft', value: 'Starting at $34,625' },

{ \_id: '350 Nm', value: '24.69 lakhs14.69 lakhs' },

{ \_id: '263-263 lb-ft', value: '$35,085-$47,230' },

{ \_id: '177 lb-ft', value: 'Starting at £31,995Starting at $24,990' },

{ \_id: '250 Nm (184 lb. ft)', value: 'Starting at €40,000' },

{ \_id: 94, value: '$13,400-$16,800' },

{ \_id: '166 lb-ft', value: 'N/A' },

{

\_id: '391 lb-ft',

value: 'Starting at $77,900Starting at $47,700Starting at $47,700'

},

{ \_id: '180-273', value: '$25,225-$36,550' },

{ \_id: '147-295', value: '$23,195' },

{ \_id: '821 lb-ft', value: '$3.2 million' },

{ \_id: '310-415 lb-ft', value: '$33,860-$54,365' },

{ \_id: '104 lb-ft', value: 'Starting at $20,000' },

{ \_id: '467-481', value: '$113,540-$210,740' },

{ \_id: '179 lb-ft', value: 'Starting at $25,295' },

{ \_id: '259-259', value: '$32,940-$45,340' },

{ \_id: '265-510 lb-ft', value: '$28,940-$70,825' },

{ \_id: '128 lb-ft', value: 'Starting at $24,450Starting at $22,450' },

{ \_id: '180-265 lb-ft', value: '$26,150-$46,780' }

]

Type "it" for more