

This operation returns all documents that match the query. In the result set, *only* the `item` and `qty` fields return in the matching documents.

Return All But the Excluded Field

To exclude a single field or group of fields you can use a projection in the following form:

```
db.inventory.find( { type: 'food' }, { type:0 } )
```

This operation returns all documents where the value of the `type` field is `food`. In the result set, the `type` field does not return in the matching documents.

With the exception of the `_id` field you cannot combine inclusion and exclusion statements in projection documents.

Return Specific Fields in Embedded Documents

Use the *dot notation* (page 171) to return specific fields inside an embedded document. For example, the `inventory` collection contains the following document:

```
{
  "_id" : 3,
  "type" : "food",
  "item" : "aaa",
  "classification": { dept: "grocery", category: "chocolate" }
}
```

The following operation returns all documents that match the query. The specified projection returns only the `category` field in the `classification` document. The returned `category` field remains inside the `classification` document.

```
db.inventory.find(
  { type: 'food', _id: 3 },
  { "classification.category": 1, _id: 0 }
)
```

The operation returns the following document:

```
{ "classification" : { "category" : "chocolate" } }
```

Projection for Array Fields

For fields that contain arrays, MongoDB provides the following projection operators: `$elemMatch`, `$slice`, and `$`.

For example, the `inventory` collection contains the following document:

```
{ "_id" : 5, "type" : "food", "item" : "aaa", "ratings" : [ 5, 8, 9 ] }
```

Then the following operation uses the `$slice` projection operator to return just the first two elements in the `ratings` array.

```
db.inventory.find( { _id: 5 }, { ratings: { $slice: 2 } } )
```

`$elemMatch`, `$slice`, and `$` are the *only* way to project *portions* of an array. For instance, you *cannot* project a portion of an array using the array index; e.g. `{ "ratings.0": 1 }` projection will *not* project the array with the first element.