

Exercise 12 - Leveraging a Primary Key View

Exercise 12.a - Create a Products View in Couchbase

While using the `getMulti` method of CFCouchbase is beneficial, it returns a structure of unordered data. We can create a view that allows us to achieve the same functionality, but with ordered data.

1. Open up the Couchbase Admin Console by going to <http://127.0.0.1:8091/> in a web browser
2. Choose [Data Buckets](#)
3. Click the "[Views](#)" button next to the **default** bucket
4. Click the "Development Views" tab, since we already have a Design Document, click the "Add View" button next to `design/dev_products`
5. For the **View Name** use `all`
6. Click "Save"
7. Use the following JavaScript as the **Map** function for the view. This will create a view whose value is a compound key / array of date parts. The value in the index is *null*. This will only emit documents to the index that match the following.

1. Has a `doc_type` property with a value of "product"

```
function (doc, meta) {  
  if(doc.doc_type == "product"){  
    emit(meta.id, null);  
  }  
}
```

8. For the **Reduce** function enter the value of `_count` and click the "Save" button
 9. We now need to publish our Development View to Production. To do this scroll up to the top of the page, and click on [Views](#).
 10. Make sure you are on the **Development Views** tab and next to `design/dev_products` click on the "Publish" button. You will get a notification that the Design Document already exists and it will ask you to confirm that you want to overwrite it, click "Confirm". This will move your `product` Design Document to production and create the index against all of the documents in the entire bucket for all of the views in the view. On Sale
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Exercise 12.b - Querying All Products View

On our Product Detail page there is a Related Products tab that will show all of the Related Products for the product being viewed. These Related products are stored as an array of product_id's on the document.

1. Open `exercise12/com/example/documents/Product.cfc` in your IDE
2. Modify the `getRelatedProducts` method to query Couchbase View. This will call the `CFCouchbase query()` method with the following arguments:

```
query = cb.query(  
    designDocumentName = "products",  
    viewName = "review_aggregates",  
    options = {  
        sortOrder = "DESC",  
        reduce = true,  
        group = true,  
        startKey = [getProduct_ID(), 5],  
        endKey = [getProduct_ID(), 1]  
    }  
);
```

For your reference the data from the `getRelatedProducts` method is used in the following views:

- `exercise12/view/includes/product.tabs.cfm`
- `exercise12/view/includes/product.tabs.related.cfm`
- `exercise12/view/includes/template.product.cfm`