# DocumentDB Node.js examples

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Sample solutions that perform CRUD operations and other common operations on DocumentDB resources are included in the [azure-documentdb-nodejs](https://github.com/Azure/azure-documentdb-node/tree/master/samples) GitHub repository. This article provides:

* Links to the tasks in each of the Node.js example project files.
* Links to the related API reference content.

**Prerequisites**

1. You need an Azure account to use these Node.js examples:
   * You can [open an Azure account for free](https://azure.microsoft.com/pricing/free-trial/): You get credits you can use to try out paid Azure services, and even after they’re used up you can keep the account and use free Azure services, such as Websites. Your credit card will never be charged, unless you explicitly change your settings and ask to be charged.

* You can [activate Visual Studio subscriber benefits](https://azure.microsoft.com/pricing/member-offers/msdn-benefits-details/): Your Visual Studio subscription gives you credits every month that you can use for paid Azure services.

1. You also need the [Node.js SDK](/documentation/articles/documentdb-sdk-node).

* [AZURE.NOTE] Each sample is self-contained, it sets itself up and cleans up after itself. As such, the samples issue multiple calls to [DocumentClient.createCollection](http://azure.github.io/azure-documentdb-node/DocumentClient.html). Each time this is done your subscription will be billed for 1 hour of usage per the performance tier of the collection being created.

## Database examples

The [app.js](https://github.com/Azure/azure-documentdb-node/blob/master/samples/DatabaseManagement/app.js) file of the [DatabaseManagement](https://github.com/Azure/azure-documentdb-node/tree/master/samples/DatabaseManagement) project shows how to perform the following tasks.

|  |  |
| --- | --- |
| Task | API reference |
| [Create a database](https://github.com/Azure/azure-documentdb-node/blob/ef53e5f6707a5dc45920fb6ad54d9c7e008a6c18/samples/DocumentDB.Samples.DatabaseManagement/app.js#L121-L131) | [DocumentClient.createDatabase](http://azure.github.io/azure-documentdb-node/DocumentClient.html#createDatabase) |
| [Query an account for a database](https://github.com/Azure/azure-documentdb-node/blob/ef53e5f6707a5dc45920fb6ad54d9c7e008a6c18/samples/DocumentDB.Samples.DatabaseManagement/app.js#L146-L171) | [DocumentClient.queryDatabases](http://azure.github.io/azure-documentdb-node/DocumentClient.html#queryDatabase) |
| [Read a database by Id](https://github.com/Azure/azure-documentdb-node/blob/ef53e5f6707a5dc45920fb6ad54d9c7e008a6c18/samples/DocumentDB.Samples.DatabaseManagement/app.js#L89-L99) | [DocumentClient.readDatabase](http://azure.github.io/azure-documentdb-node/DocumentClient.html#readDatabase) |
| [List databases for an account](https://github.com/Azure/azure-documentdb-node/blob/ef53e5f6707a5dc45920fb6ad54d9c7e008a6c18/samples/DocumentDB.Samples.DatabaseManagement/app.js#L111-L119) | [DocumentClient.readDatabases](http://azure.github.io/azure-documentdb-node/DocumentClient.html#readDatabase) |
| [Delete a database](https://github.com/Azure/azure-documentdb-node/blob/ef53e5f6707a5dc45920fb6ad54d9c7e008a6c18/samples/DocumentDB.Samples.DatabaseManagement/app.js#L133-L144) | [DocumentClient.deleteDatabase](http://azure.github.io/azure-documentdb-node/DocumentClient.html#deleteDatabase) |

## Collection examples

The [app.js](https://github.com/Azure/azure-documentdb-node/blob/master/samples/CollectionManagement/app.js) file of the [CollectionManagement](https://github.com/Azure/azure-documentdb-node/tree/master/samples/CollectionManagement) project shows how to perform the following tasks.

|  |  |
| --- | --- |
| Task | API reference |
| [Create a collection](https://github.com/Azure/azure-documentdb-node/blob/ef53e5f6707a5dc45920fb6ad54d9c7e008a6c18/samples/DocumentDB.Samples.CollectionManagement/app.js#L97-L118) | [DocumentClient.createCollection](http://azure.github.io/azure-documentdb-node/DocumentClient.html#createCollection) |
| [Read a list of all collections in a database](https://github.com/Azure/azure-documentdb-node/blob/ef53e5f6707a5dc45920fb6ad54d9c7e008a6c18/samples/DocumentDB.Samples.CollectionManagement/app.js#L120-L130) | [DocumentClient.listCollections](http://azure.github.io/azure-documentdb-node/DocumentClient.html#listCollections) |
| [Get a collection by \_self](https://github.com/Azure/azure-documentdb-node/blob/ef53e5f6707a5dc45920fb6ad54d9c7e008a6c18/samples/DocumentDB.Samples.CollectionManagement/app.js#L132-L141) | [DocumentClient.readCollection](http://azure.github.io/azure-documentdb-node/DocumentClient.html#readCollection) |
| [Get a collection by Id](https://github.com/Azure/azure-documentdb-node/blob/ef53e5f6707a5dc45920fb6ad54d9c7e008a6c18/samples/DocumentDB.Samples.CollectionManagement/app.js#L143-L156) | [DocumentClient.readCollection](http://azure.github.io/azure-documentdb-node/DocumentClient.html#readCollection) |
| [Get performance tier of a collection](https://github.com/Azure/azure-documentdb-node/blob/ef53e5f6707a5dc45920fb6ad54d9c7e008a6c18/samples/DocumentDB.Samples.CollectionManagement/app.js#L158-L186) | [DocumentQueryable.queryOffers](http://azure.github.io/azure-documentdb-node/DocumentClient.html#queryOffers) |
| [Change performance tier of a collection](https://github.com/Azure/azure-documentdb-node/blob/ef53e5f6707a5dc45920fb6ad54d9c7e008a6c18/samples/DocumentDB.Samples.CollectionManagement/app.js#L188-L202) | [DocumentClient.replaceOffer](http://azure.github.io/azure-documentdb-node/DocumentClient.html#replaceOffer) |
| [Delete a collection](https://github.com/Azure/azure-documentdb-node/blob/ef53e5f6707a5dc45920fb6ad54d9c7e008a6c18/samples/DocumentDB.Samples.CollectionManagement/app.js#L204-L215) | [DocumentClient.deleteCollection](http://azure.github.io/azure-documentdb-node/DocumentClient.html#deleteCollection) |

## Document examples

The [app.js](https://github.com/Azure/azure-documentdb-node/blob/master/samples/DocumentManagement/app.js) file of the [DocumentManagement](https://github.com/Azure/azure-documentdb-node/tree/master/samples/DocumentManagement) project shows how to perform the following tasks.

|  |  |
| --- | --- |
| Task | API reference |
| [Create documents](https://github.com/Azure/azure-documentdb-node/blob/ef53e5f6707a5dc45920fb6ad54d9c7e008a6c18/samples/DocumentDB.Samples.DocumentManagement/app.js#L153-L177) | [DocumentClient.createDocument](http://azure.github.io/azure-documentdb-node/DocumentClient.html#createDocument) |
| [Read the document feed for a collection](https://github.com/Azure/azure-documentdb-node/blob/ef53e5f6707a5dc45920fb6ad54d9c7e008a6c18/samples/DocumentDB.Samples.DocumentManagement/app.js#L179-L189) | [DocumentClient.readDocument](http://azure.github.io/azure-documentdb-node/DocumentClient.html#readDocument) |
| [Read a document by ID](https://github.com/Azure/azure-documentdb-node/blob/ef53e5f6707a5dc45920fb6ad54d9c7e008a6c18/samples/DocumentDB.Samples.DocumentManagement/app.js#L191-L201) | [DocumentClient.readDocument](http://azure.github.io/azure-documentdb-node/DocumentClient.html#readDocument) |
| [Read document only if document has changed](https://github.com/Azure/azure-documentdb-node/blob/0778eadea7abb2af41e8c22a239dc872c584f421/samples/DocumentManagement/app.js#L79-L107) | [DocumentClient.readDocument](http://azure.github.io/azure-documentdb-node/DocumentClient.html#readDocument)[RequestOptions.accessCondition](http://azure.github.io/azure-documentdb-node/global.html#RequestOptions) |
| [Query for documents](https://github.com/Azure/azure-documentdb-node/blob/ef53e5f6707a5dc45920fb6ad54d9c7e008a6c18/samples/DocumentDB.Samples.DocumentManagement/app.js#L82-L110) | [DocumentClient.queryDocuments](http://azure.github.io/azure-documentdb-node/DocumentClient.html#queryDocuments) |
| [Replace a document](https://github.com/Azure/azure-documentdb-node/blob/ef53e5f6707a5dc45920fb6ad54d9c7e008a6c18/samples/DocumentDB.Samples.DocumentManagement/app.js#L112-L119) | [DocumentClient.replaceDocument](http://azure.github.io/azure-documentdb-node/DocumentClient.html#replaceDocument) |
| [Replace document with conditional ETag check](https://github.com/Azure/azure-documentdb-node/blob/0778eadea7abb2af41e8c22a239dc872c584f421/samples/DocumentManagement/app.js#L147-L164) | [DocumentClient.replaceDocument](http://azure.github.io/azure-documentdb-node/DocumentClient.html#replaceDocument)[RequestOptions.accessCondition](http://azure.github.io/azure-documentdb-node/global.html#RequestOptions) |
| [Delete a document](https://github.com/Azure/azure-documentdb-node/blob/ef53e5f6707a5dc45920fb6ad54d9c7e008a6c18/samples/DocumentDB.Samples.DocumentManagement/app.js#L122-L133) | [DocumentClient.deleteDocument](http://azure.github.io/azure-documentdb-node/DocumentClient.html#deleteDocument) |

## Indexing examples

The [app.js](https://github.com/Azure/azure-documentdb-node/blob/master/samples/IndexManagement/app.js) file of the [IndexManagement](https://github.com/Azure/azure-documentdb-node/tree/master/samples/IndexManagement) project shows how to perform the following tasks.

|  |  |
| --- | --- |
| Task | API reference |
| Create a collection with default indexing | [DocumentClient.createDocument](http://azure.github.io/azure-documentdb-node/DocumentClient.html) |
| [Manually index a specific document](https://github.com/Azure/azure-documentdb-node/blob/ef53e5f6707a5dc45920fb6ad54d9c7e008a6c18/samples/DocumentDB.Samples.IndexManagement/app.js#L185-L238) | [indexingDirective: ‘include’](http://azure.github.io/azure-documentdb-node/global.html#indexingDirective) |
| [Manually exclude a specific document from the index](https://github.com/Azure/azure-documentdb-node/blob/ef53e5f6707a5dc45920fb6ad54d9c7e008a6c18/samples/DocumentDB.Samples.IndexManagement/app.js#L120-L183) | [RequestOptions.indexingDirective](http://azure.github.io/azure-documentdb-node/global.html#RequestOptions) |
| [Use lazy indexing for bulk import or read heavy collections](https://github.com/Azure/azure-documentdb-node/blob/ef53e5f6707a5dc45920fb6ad54d9c7e008a6c18/samples/DocumentDB.Samples.IndexManagement/app.js#L240-L269) | [IndexingMode.Lazy](http://azure.github.io/azure-documentdb-node/global.html#indexingmode) |
| [Include specific paths of a document in indexing](https://github.com/Azure/azure-documentdb-node/blob/ef53e5f6707a5dc45920fb6ad54d9c7e008a6c18/samples/DocumentDB.Samples.IndexManagement/app.js#L433-L444) | [IndexingPolicy.IncludedPaths](http://azure.github.io/azure-documentdb-node/global.html#indexingpolicy) |
| [Exclude certain paths from indexing](https://github.com/Azure/azure-documentdb-node/blob/ef53e5f6707a5dc45920fb6ad54d9c7e008a6c18/samples/DocumentDB.Samples.IndexManagement/app.js#L427-L450) | [ExcludedPath](http://azure.github.io/azure-documentdb-node/global.html#indexingpolicy) |
| [Allow a scan on a string path during a range operation](https://github.com/Azure/azure-documentdb-node/blob/ef53e5f6707a5dc45920fb6ad54d9c7e008a6c18/samples/DocumentDB.Samples.IndexManagement/app.js#L271-L347) | [ExcludedPath.EnableScanInQuery](http://azure.github.io/azure-documentdb-node/global.html#FeedOptions) |
| [Create a range index on a string path](https://github.com/Azure/azure-documentdb-node/blob/ef53e5f6707a5dc45920fb6ad54d9c7e008a6c18/samples/DocumentDB.Samples.IndexManagement/app.js#L349-L425) | [DocumentClient.queryDocument](http://azure.github.io/azure-documentdb-node/DocumentClient.html#queryDocument) |
| [Create a collection with default indexPolicy, then update this online](https://github.com/Azure/azure-documentdb-node/blob/ef53e5f6707a5dc45920fb6ad54d9c7e008a6c18/samples/DocumentDB.Samples.IndexManagement/app.js#L519-L614) | [DocumentClient.createCollection](http://azure.github.io/azure-documentdb-node/DocumentClient.html#createCollection) [DocumentClient.replaceCollection#replaceCollection](http://azure.github.io/azure-documentdb-node/DocumentClient.html) |

For more information about indexing, see [DocumentDB indexing policies](/documentation/articles/documentdb-indexing-policies).

## Server-side programming examples

The [app.js](https://github.com/Azure/azure-documentdb-node/blob/master/samples/ServerSideScripts/app.js) file of the [ServerSideScripts](https://github.com/Azure/azure-documentdb-node/tree/master/samples/ServerSideScripts) project shows how to perform the following tasks.

|  |  |
| --- | --- |
| Task | API reference |
| [Create a stored procedure](https://github.com/Azure/azure-documentdb-node/blob/ef53e5f6707a5dc45920fb6ad54d9c7e008a6c18/samples/DocumentDB.Samples.ServerSideScripts/app.js#L44-L71) | [DocumentClient.createStoredProcedure](http://azure.github.io/azure-documentdb-node/DocumentClient.html#createStoredProcedure) |
| [Execute a stored procedure](https://github.com/Azure/azure-documentdb-node/blob/ef53e5f6707a5dc45920fb6ad54d9c7e008a6c18/samples/DocumentDB.Samples.ServerSideScripts/app.js#L73-L90) | [DocumentClient.executeStoredProcedure](http://azure.github.io/azure-documentdb-node/DocumentClient.html#executeStoredProcedure) |

For more information about server-side programming, see [DocumentDB server-side programming: Stored procedures, database triggers, and UDFs](/documentation/articles/documentdb-programming).

## Partitioning examples

The [app.js](https://github.com/Azure/azure-documentdb-node/blob/master/samples/Partitioning/app.js) file of the [Partitioning](https://github.com/Azure/azure-documentdb-node/tree/master/samples/Partitioning) project shows how to perform the following tasks.

|  |  |
| --- | --- |
| Task | API reference |
| [Use a HashPartitionResolver](https://github.com/Azure/azure-documentdb-node/blob/ce0fc3c4e70b0279091a1e03620a668d93a14fc2/samples/Partitioning/app.js#L53-L103) | [HashPartitionResolver](http://documentdb.com) |

For more information about partitioning data in DocumentDB, see [Partition and scale data in DocumentDB](/documentation/articles/documentdb-partition-data).