

ADAMS

Advanced **D**ata mining **A**nd **M**achine learning **S**ystem

Module: adams-mongodb



Peter Reutemann

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Te Whare Wānanga o Waikato



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Contents

1	Introduction	5
2	Flow	7
	Bibliography	9

Chapter 1

Introduction

MongoDB (from humongous[citation needed]) is a free and open-source cross-platform document-oriented database program. Classified as a NoSQL[3] database program, MongoDB uses JSON-like[4] documents with schemas.

- Documentation on setting up a MongoDB instance on Linux:
<https://www.howtoforge.com/tutorial/install-mongodb-on-ubuntu-16.04/>
- SQL to MongoDB Mapping Chart:
<https://docs.mongodb.com/manual/reference/sql-comparison/>

Chapter 2

Flow

The following boolean conditions are available:

- *MongoDbCollectionExists* – checks whether the specified collection exists.
- *MongoDbDocumentExists* – checks whether the specified collection/document exists.

The following standalones are available:

- *MongoDbConnection* – defines a connection to a MongoDB instance.

The following sources are available:

- *MongoDbGetCollection* – forwards the specified collection.
- *MongoDbListCollections* – lists all collections in the current database context.
- *MongoDbListDatabases* – lists all databases in the current connection context.
- *MongoDbNewCollection* – creates a new collection and forwards it.

The following transformers are available:

- *MongoDbCollectionUpdate* – for updating a collection, e.g. adding a document.
- *MongoDbDocumentUpdate* – for updating a document, adding/removing values
- *MongoDbFindDocuments* – for locating documents in a collection
- *MongoDGetDocumentKeys* – returns all the keys in the document
- *MongoDGetDocumentValue* – returns the value associated with the specified key

The following sinks are available:

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Bibliography

- [1] *ADAMS* – Advanced Data mining and Machine learning System
<https://adams.cms.waikato.ac.nz/>
- [2] *MongoDB* – a NoSQL database which uses JSON-like documents
<https://www.mongodb.com/>
- [3] *NoSQL* – a database that provides a mechanism for storage and retrieval of data that is modeled in means other than the tabular relations used in relational databases
<https://en.wikipedia.org/wiki/NoSQL>
- [4] *JSON* – an open-standard file format that uses human-readable text to transmit data objects consisting of attributevalue pairs and array data types (or any other serializable value)
<https://en.wikipedia.org/wiki/JSON>