**ITWorks – MongoDB Database Document**

**(for Client)**

**Client Company Name:** **Shopping World**

**Author : Andre Alexandrov**

Version: 1.0

Date: 3/07/2023

Status: Draft

**For more information**

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| **Client Company Contact:** |  |
| Name: xxxxxxxxxxxx  Email: xxxxxxxxxxxx  Tel.: xxxxxxxxxxxx |  |

**Revision History:**

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| --- | --- | --- | --- |
| Version | **Date** | **Author(s)** | **Change Description** |
| 1.0 | 02/07/2023 | Andre Alexandrov | *First draft.* |
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# Introduction

This section specifies the background information about the client company *(XXXXXXXXXXXXX)* MongoDB document.

It documents the design and features implemented with the MongoDB deployed are covered for this document.

MongoDB Atlas Database deployed:

* Version: 6.0.6
* Region: AWS / Sydney (ap-southeast-2)
* Cluster name: ShoppingWorld0
* Database name: shoppingCartDB

# Database Document Objectives

This section describes the database document objectives such as the description of the database setup details with the local database and the cloud services, as documentation tools, contacts, the design, and sign off. (Approx. in 40 words)

* Define the database setup details. This item describes the availability of the database as local database and also from cloud database service through the cloud service provider.
* Communicate to all responsible parties related to different procedures. This item describes who are the contacts for the client company. Describe how frequent the ITWork staff communicates with the client representative.
* Define design and implementation deliverables (create collections, insert data, … REST API)
* Setup users and authentications.
* Design of indexes to optimize the retrieval
* Design of data partitioning /load balancing
* Communicate to all responsible parties to provide the system resources required, approvals and sign off for the design

# Scope

* This section describes the overall purpose of the proposed database. This document will list the features (e.g. the storing data, making queries, updating business transactions) of the database that meets the client business requirements. (Approx. 80 words)

# Database Services and Connections

* This lists more details of the database service offered by MongoDB Atlas with the following information:

Document the cluster configuration:

* Cloud provider & Region: xxxxxxxxxxxx
* Memory storage: xxxxxxxxxxxxxx
* MongoDB version: xxxxxxxxxxxx
* Network Access (ip addresses to connect): xxx.xxx.xxx.000 (i.e. white list but only show uo to the subnet address will do).
* Automated backup (active or inactive): xxxxxxxxxxxxx
* List the connection methods (The connection string) \*\*Note: no need to include user name and password.
* Connection with MongoDB shell:

xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

* Connect with Application:

xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

* Connect with MongoDB Compass:

xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

# Database Schema & Collections

* This section describes why MongoDB may meet the business data processing requirements of the client. (Approx. 30 words)
* Discuss the benefit of flexibility of schemaless may also meet the business transaction process. (Approx. 30 words)
* Include the database schema diagram designed for the client.

# Performance Tuning using Indexes.

* Describe how indexing may help the performance with the client business. May include a list of indexes created. (Approx. 30 words)
* Describe how sharding may help the performance with the client business. May include the partitioning/sharding distribution here. (Approx. 30 words)

# Users and authentications

This section describes the user access and the authenticaltion to the database.

* List 4 common database roles
* List of users created and their permissions

# Scaling (horizontal and vertical scaling)

* Describe the horizontal scaling using partitioning and sharding features of MongoDB. May include example of the sharding option completed in Part 3 Task 4.
* Describe the vertical scaling (license upgrade) available to MongoDB Atlas.
* Upgrade options: list one update options appropriate to the client
* Price /hr. :
* RAM (GB) :
* Storage (GB) :
* CPU (no.) :

# REST API for applications

* Describes the purpose of using REST API. (Approx. 30 words)
* Include the name of the APIs already set up in Part 4. Include the URI port no and the paths for accessing the APIs.

# Approvals/Sign Off

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