**Database**: Amazon Dynamo DB

**Reason of choosing Amazon Dynamo DB from Technology Perspective**: Amazon Dynamo DB is Key Value database and has following features:

* Simple data structure key value makes read and writer operation very fast
* Value can be JSON or String so provides flexibility
* Easy to Scale

**Reason of choosing Key Value Database from Project Perspective**: “MyDigitalInfo” app stores very basic information such as Name, Address, City, State, Zip Code and health record. Each record is linked to one unique id. As the application doesn’t restrict the user to create more than one QR Code, always unique id will be the driving factor for the data lookup. Considering the data structure of this “MyDigitalInfo” app, data retrieval and insertion should be quick to have good UX so Key-Value database makes perfect sense for this use case.

**Database Data structure Details:**

* **Key:**

<First 2 character of Name><Current Timestamp>

* **Value JSON Schema**:

{ "$schema": "http://json-schema.org/draft-04/schema#", "type": "object", "properties": { "name": { "type": "string" }, "address": { "type": "string" }, "city": { "type": "string" }, "zipcode": { "type": "string" }, "fever": { "type": "boolean" }, "cough": { "type": "boolean" }, "inContactCOVID": { "type": "boolean" }, "travel": { "type": "boolean" } }, "required": [ "name", "address", "city", "zipcode", "fever", "cough", "inContactCOVID", "travel" ]}

* T**ime to Live configuration**: 84 hrs .

This configuration will delete the records once QR code is expired after 72 hours.

* **Purpose of value data**:
  1. Field Name: “Name”
     + Type: String
     + Purpose: This field will be used to store the consumer's full name
  2. Field Name: “Address”
     + Type: String
     + Purpose: This field will be used to store the consumer's street address
  3. Field Name: “City”
     + Type: String
     + Purpose: This field will be used to store the City
  4. Field Name: “zipcode”
     + Type: String
     + Purpose: This field will be used to store the ZipCode.
  5. Field Name: “State”
     + Type: String
     + Purpose: This field will be used to store the State
  6. Field Name: “fever”
     + Type: Boolean
     + Purpose: This field will be used to store the health information such as fever symptoms
  7. Field Name: “cough”
     + Type: Boolean
     + Purpose: This field will be used to store the health information such as Cough symptoms
  8. Field Name: “COVID19”
     + Type: Boolean
     + Purpose: This field will be used to store the health information such as COVID symptoms
  9. Field Name: “travel”
     + Type: Boolean
     + Purpose: This field will be used to store the health information such as internal travel in last 14 days