**Database Design**

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**Database Design**

**Justification of Database Choice:**

For the Anxiety Journal web application, MongoDB, a NoSQL database, is chosen due to its flexibility and scalability, which align well with the dynamic nature of the application's data and potential future growth.

**Reasons for Choosing MongoDB:**

1. Flexibility: MongoDB's document-based model allows for flexible schema designs, accommodating changes in data structure over time.
2. Scalability: MongoDB is horizontally scalable, enabling seamless handling of increasing data volumes and user loads.
3. Performance: MongoDB's efficient indexing and querying capabilities ensure fast and responsive data access, which is crucial for real-time user interactions.
4. Ease of Development: MongoDB's JSON-like documents are familiar to developers, facilitating rapid development and iteration.
5. Community Support: MongoDB has a large and active community, providing extensive documentation, tutorials, and support resources.

**Data Structures:**

The following Collections and Documents will be stored in the MongoDB database:

**Users (Employee Records):**

•Collection Name: Users

**•Document Structure:**

{

"\_id": string (auto-generated id by MongoDB),

"email": string,

"salt": string,

"hash": string,

"fullName": string,

"username": string

}

•**Purpose**: Storing pre-existing employee records for essential login interaction.

•Implementation: Each document represents a user with email, salt, hash for password security, full name, and username.

•**Interaction**: Basic login authentication.

**Posts:**

•Collection Name: Posts

•Document Structure:

{

"\_id": string (auto-generated id by MongoDB),

"title": string,

"image": string (reference URL to the cloud-stored image),

"content": string,

"created": string (used for sorting purposes),

"author": string,

"spending": boolean,

"approvedOn": string,

"approvedBy": string

}

•**Purpose**: Holding information about blog posts.

•**Implementation**: Each document represents a blog post with attributes including title, image URL, content, author, and approval status.

•**Interaction**: Creating, reading, updating, and deleting blog posts.

**Reviews**:

•Collection Name: Reviews

•Document Structure:

{

"\_id": string (auto-generated id by MongoDB),

"age": int,

"name": string,

"email": string,

"message": string,

"created": string,

"image": string (reference URL to the cloud-stored image),

"isPending": boolean,

"approvedOn": string,

"approvedBy": string

}

•**Purpose**: Storing information about reviews of the company.

•**Implementation**: Each document represents a review with attributes such as age, name, email, message, and approval status.

•**Interaction**: Submitting, approving, and rejecting reviews.

**Inquiries**:

•Collection Name: Inquiries

•Document Structure:

{

"\_id": string (auto-generated id by MongoDB),

"userInfo": {

"name": string,

"email": string

},

"message": string

}

• **Purpose**: Holding information about inquiries submitted by end users.

• **Implementation**: Each document represents an inquiry with user information and a message.

• **Interaction**: Submitting and managing inquiries.

**Data Structure Usage:**

•**Users**: Used for user authentication and profile management.

•**Mood Entries:** Used to track user moods over time.

•**Journal Entries:** Used for users to record their thoughts and experiences.

•**Coping Resources:** Provides users access to helpful resources for managing anxiety.

•**Forum Posts/Replies:** Facilitates user interaction and support within the community forum.