Group #: Group 3

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Users Collection:

The User collection will store information about all registered users. Each document will include a unique identifier (ObjectId) generated by MongoDB, along with the user's username, password, and email address. Additionally, the collection will keep a record of a user's habits and their completion history. This log will reference the habit, include the date it was completed, and indicate whether it was completed or not. If a habit is completed, the completion date will be saved. The user's habits will be stored in an array. The document will also contain details about the group that the user has joined. Finally, there will be a "score" property that tracks the total score for maintaining all habits every day since the account was created.

User Document Example:

```
{
        "_id": "5f59a4e25e3f016d6f5ae5a7"
        "username": "user123",
        "password": "password123",
        "email": "user@example.com",
        "habits": [
                {
                        "habitId": "7f59a4e25e3f016d6f5ae5a8",
                        "dateCompleted": "10-30-2023"
                        "isCompleted": "true"
                },
                {
                        "habitId": "6f59a4e25e3f016d6f5ae5a8",
                        "dateCompleted": "10-31-2023",
                        "isCompleted": "true"
                }]
        groups: ["2f59a4e25e3f016d6f5ae5a6", "3f59a4e25e3f016d6f5ae5a1"]
        score: "1025"
}
```

Name	Type	Description
_id	ObjectId	A unique identifier to represent the user.

username	String	Holds the name or identifier that the user will use to log in to the application. It serves as a unique username for the account.
password	String	Stores the user's confidential login password. It is used to authenticate the user during the login process.
email	String	Contains the user's email address.
habits	array	This is an array of objects. The objects will contain the habit id, the date of completion, and a boolean which indicates whether or not the user has completed the habit for that day.
groups	array	This is an array of ids of groups to which the user belongs allowing the user to be associated with multiple groups.
score	Number	A number that tracks the user's total score calculated based on the user's commitment to maintaining all good habits and avoiding all bad habits every day since the creation of their account.

Habits Collection:

The Habits collection will hold information about habits, including a unique identifier generated by MongoDB, the habit's name, its type (whether it's a good or bad habit), the maximum number of consecutive days the habit was maintained (for good habits) or avoided (for bad habits), and the habit's weight.

Habit Document Example:

{
    "_id": "8f59a4e25e3f016d6f5ae5a2",
    "name": "Exercise",
    "type": "Good",
    "maxNumberOfConsecutiveDays": "30",
    "weight": "5",
    "reminderTime": "2:30 PM"
}

Name	Type	Description
_id	ObjectId	A unique identifier to represent the habit.
name	String	The name or title of the habit. helping users to identify the habit.
type	String	Indicates whether the habit is considered a good habit or a bad habit.
maxNumberOfConsecutiveDays	Number	Represents the maximum number of consecutive days the user has maintained or avoided the habit.
weight	Number	A numerical value indicating the importance or significance of a habit.
reminderTime	Date(Time)	Specifies the time of day when daily reminder notifications are sent to the user regarding the habit if the habit has been unchecked for that day.

Groups Collection:

The Groups collection will store details about different groups, each represented by a unique MongoDB generated identifier. It will also include the group name, an array of group members (users), the group owner, and the group's score.

Group Document Example:

```
{
        "_id": "8f59a4e25e3f016d6f5ae5a2",
        "name": "Fitness Enthusiasts",
        "members": ["user123", "user456"]
        "owner": "user123"
        "habits":  [{
                        "_id": "8f59a4e25e3f016d6f5ae5a1",
                        "name": "Avoid candy",
                        "type": "Bad"
                        "maxNumberOfConsecutiveDays": "30"
                        "weight": "10"
                }]
        "score": "20,500"
        creationDate: "10-30-2022"
}
```

Name	Type	Description
_id	ObjectId	A unique identifier to represent the group.
name	String	The name or title of the group. helping users to identify groups they are a part of.
members	array	An array of usernames representing the members of the group.
habits	array	An array of habit objects. Each element is an object with a habit id, the name of the habit, the type, maxNumberOfConsecutiveDays, and weight of the habit.

score	Number	A numerical value that represents groups score which is calculated based on individual performance in maintaining or avoiding bad habits.
creationDate	Date	The date and time when the group was created.