StudyGeeks Application

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Tutors

The tutors collection will store all details about the tutor. Tutors will be able to login, update their details, see their students, and chat with them (chat is accessed via student collection). Also useful for identifying search parameters like subjects, rating, price, proficiency, and location.

```
{
        "_id" : "7b7997a2-c0d2-4f8c-b27a-6a1d4b5b6310",
        "email" : "john.doe@gmail.com",
        "firstName" : "John",
        "lastName" : "Doe",
        "hashedPassword" :
"$2a$08$XdvNkfdNIL8F8xsuIUeSbNOFgK0M0iV5HOskfVn7.PWncShU.O",
        "town" : "Hoboken",
        "state" : "New Jersey",
        "reviews": ["7b696a2-d0f2-4g8g-h67d-7a1d4b6b6710",
                "5e6bccc5-d0f2-4g8g-h67d-7b696a2"],
        "avgRating" : 4.2,
        "tutorSubjects" : [
                {"_id" : "8k2481a2-c0d2-4f8c-b27a-6a1d4b5b6310",
                "subjectName" : "physics",
                "proficiency" : "intermediate",
                "price" : 20.00,
                "teaches" : ["7b696a2-d0f2-4g8g-h67d-szrV2ETTR5"] },
                {"subjectName" : "web programming",
                "proficiency" : "advanced",
                "price" : 15.00,
                "teaches" : ["7b696a2-d0f2-4g8g-h67d-7a1d7b696a5",
                        "NZICSp9-alEQ-HxI1-myIT-szrV2ETTR5"]
                }
        ],
        "availability" : [
```

```
                    {day: "Monday",
                    start: 14,
                    end: 16},
                    {day: "Wednesday",
                    start: 12,
                    end: 17}
          ]
    }
```

Name	Type	Description
_id	string	A unique, randomly-generated value to represent the tutor.
email	string	A string representing the tutor's email address
firstName	string	The tutor's first name
lastName	string	The tutor's last name
hashedPassword	string	The password used when the tutor logs in
town	string	The town where the tutor works
state	string	The state where the tutor works
reviews	array	Array that stores IDs of reviews tutors receive
avgRating	number	The tutor's average rating. When a new rating is made for the tutor, this is recalculated
tutorSubjects	Sub-Document	A sub document that contains the subjects they tutor, their proficiency in the subject, their desired pay, and the IDs of students they tutor
availability	Sub-Document	Sub document that stores the available times of the tutor through the week

Students

The students collection will store all students credentials. Students will be able to login, search for tutors, request to be tutored in a subject, (text) chat with a tutor (via tutoredBy's ID linking to tutorPairs), and post reviews/ratings of tutors they have had.

```
{
        "_id" : "7b7997a2-c0d2-4f8c-b27a-6a1d4b5b6320",
        "email" : "brian.molko@gmail.com",
        "firstname":"Brian",
        "lastname": "Molko",
        "hashedPassword" :
        "$2a$24$XdvNkfdNI08F8xsuIUeSbNOFgK0M0iV5HOskfVn7.Plm23mj#S",
        "town": "Brooklyn",
        "state": "New York",
        "studentSubjects" : [
                {"_id" : "8k2481a2-c0d2-4f8c-b27a-6a1d4b5b6310",
                "subjectName" : "web programming",
                "proficiency ": "advanced",
                "tutoredBy": "NZICSp9alEQHxI1myITszrV2ETTR5"}],
        "availability" : [
                {day: "Monday",
                start: 8,
                end: 12},
                {day: "Wednesday",
                start: 12,
                end: 17}
        ]
}
```

Name	Type	Description
_id	string	A unique, randomly-generated value to represent the student.
email	string	A string representing the student's email address
firstName	string	The student's first name
lastName	string	The student's last name
hashedPassword	string	The password used when the student logs in
town	string	The town where the student studies
state	string	The state where the student studies

studentSubjects	Sub document	The name of the subject that the student is willing to take up with the proficiency level and the id of a student-tutor pair
availability	Sub document	The available timings of the student through the week

Reviews

The reviews collection will store all reviews.

```
{
        "_id" : "7b7997a2-c0d2-4f8c-b27a-6a1d4b5b6444",
        "reviewer" : "7b7997a2-c0d2-4f8c-b27a-6a1d4b5b6320",
        "reviewee":  "7b7997a2-c0d2-4f8c-b27a-6a1d4b5b6310",
        "reviewContents": "John is a great teacher, he is energetic and goes into
details of every bit of code he is writing.",
        "rating": 4.2
}
```

Name	Type	Description
_id	string	A unique, randomly-generated value to represent the student.
reviewer	string	The id of the student who reviews the tutor
reviewee	string	The id of the tutor who is being reviewed by the student
reviewContents	string	A review of the tutor written by the student.
rating	number	The rating of the tutor from a range of 0-5

TutorPairs

The tutorPairs collection will store all pairs of students and tutors. This table will be referenced to show which students a tutor is matched with, and vice versa.

```
{
        "_id" : "NZICSp9alEQHxl1mylTszrV2ETTR5",
        "tutor_id" : "7b7997a2-c0d2-4f8c-b27a-6a1d4b5b6310",
```

```
        "tutorFirstName" : "John",
        "tutorLastName" : "Doe",
        "student_id" : "7b7997a2-c0d2-4f8c-b27a-6a1d4b5b6320",
        "studentFirstName" : "Brian",
        "studentLastName" : "Molko",
        "subject" : "physics",
        "chatHistoryID": ["4wkX-lpsO-wlQNm-3JXGH-dwG7fj5Wf2"]
    }
```

Name	Type	Description
_id	string	A unique, randomly-generated value to represent the tutor-student pair.
tutor_id	string	The id of the tutor
tutorFirstName	string	The tutor's first name
tutorLastName	string	The tutor's last name
student_id	string	The id of the student
studentFirstName	string	The student's first name
studentLastName	string	The student's last name
subject	string	The subject they are working with
chatHistoryID	array	An array of the pair's chat history comment IDs

chatHistory

Each chatHistory object will store chat info for one comment between a tutor pair.
Combined, all the objects in this array form a comprehensive chat history.

```
    {
        "_id" : "4wkX-lpsO-wlQNm-3JXGH-dwG7fj5Wf2",
        "senderId": "7b7997a2-c0d2-4f8c-b27a-6a1d4b5b6310",
        "senderFirstName" : "John",
        "senderLastName" : "Doe",
        "receiverId": "7b7997a2-c0d2-4f8c-b27a-6a1d4b5b6320",
```

                 "receiverFirstName": "Brian",

                 "receiverLastName" : "Molko",

                 "content" : "Can we start 15 minutes earlier tomorrow?",

                 "date": "2020-03-25T12:00:00-06:30"

        }

Name	Type	Description
_id	string	A unique, randomly-generated value to represent the comment.
senderId	string	The id of the sender
senderFirstName	string	The first name of the sender
senderLastName	string	The last name of the sender
receiverId	string	The id of the receiver
receiverFirstName	string	The first name of the receiver
receiverLastName	string	The last name of the receiver
content	string	The text contents of the chat message
date	date	The date & time when chat comment was made (Date object)

tutorSubjects

tutorSubjects is a subdocument of Tutors that stores information about the subjects taught by the tutor.

"tutorSubjects": [{

        "_id" : "8k2481a2-c0d2-4f8c-b27a-6a1d4b5b6310",

        "subjectName" : "physics",

        "proficiency" : "intermediate",

        "price" : 20.00,

        "teaches" : ["7b696a2-d0f2-4g8g-h67d-szrV2ETTR5"]

```
        }]
```

Name	Type	Description
_id	string	the ID of the subject they tutor
subjectName	string	the subject they tutor
proficiency	string	their proficiency (credential) in the subject
price	number	their desired pay
teaches	array	An array of the IDs of students they tutor in the subject

studentSubjects

studentSubjects is a subdocument of Students that stores information about the subjects that the students want/get help with.

```
"studentSubjects": [{
        "_id" : "8k2481a2-c0d2-4f8c-b27a-6a1d4b5b6310",
        "subjectName" : "web programming",
        "proficiency ": "advanced",
        "tutoredBy": "NZICSp9alEQHxI1mylTszrV2ETTR5"
    }]
```

Name	Type	Description
_id	string	the ID of the subject they are tutored in
subjectName	string	the subjects they are tutored in
proficiency	string	their proficiency in the subject (course level)
tutoredBy	string	The ID of the TutorPair

Availability

Availability is a subdocument of both Tutors and Students, used to express the days and times that they are available to work.

```
"availability": [{
            "day": "Monday",
            "start": 8,
            "end": 12
      }]
```

Name	Type	Description
day	string	The day of the week they are available
start	number	Time of day they become available (military time)
end	number	Time of day they become unavailable (military time)