**ReviewSphere - Database Proposal**

**CS 546-B**

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Users:

The user collection will store all users. Users will be able to login/sign-up, update their details, and post reviews. They would also be able to follow other users and comment on reviews posted by other users.

| users:{  \_id: “7b7997a2-c0d2-4f8c-b27a-6a1d4b5b6310”,   firstName: “Jennifer”,  lastName: “Antison”,  sex: “female”,  age: 30,  contactEmail: “jen@gmail.com”,  password: "$2a$08$XdvNkfdNIL8F8xsuIUeSbNOFgK0M0iV5HOskfVn7.PWncShU.O",  following: [“7b7997a2-c0d2-4f8c-b27a-6a1d4b5b6310”,  “7b696a2-d0f2-4g8g-h67d-7a1d4b6b6710”],  followers: [“7b7997a2-c0d2-4f8c-b27a-6a1d4b5b6310”,  “7b696a2-d0f2-4g8g-h67d-7a1d4b6b6710”],  tags: [veg, bearded, liquor],  location: {  firstLine: “538 New York Ave”,  secondLine: “Apt 1”,  country: “US”,  city: “Jersey City”,  state: “New Jersey”,  zip: “07307”,  },  reviews: [7b7997a2-c0d2-4f8c-b27a-6a1d4b5b6310,  7b696a2-d0f2-4g8g-h67d-7a1d4b6b6710],  createdAt: 2022-02-26T16:37:48.244Z,  updatedAt: 2022-02-26T16:37:48.244Z, } |
| --- |
|  |

| **Name** | **Type** | **Description** |
| --- | --- | --- |
| \_id | string | A globally unique identifier to represent the user. |
| firstName | string | First name of user |
| lastName | string | Last name of user |
| sex | string | Sex of the user |
| age | Number | Age of the users |
| contactEmail | string | Contact email of the user |
| password | string | The hashed password when users log in. |
| following | array | An array that stores the id of users that current users follow. |
| followers | array | An array that stores the id of users that follows the current users. |
| tags() | array | An array that stores the tags of users which would help us to recommend a particular review to the users. |
| location | subdocument | A subdocument that stores address, zip code, state, city and country and their type is string |
| reviews | array | An array that stores the id’s of reviews. |
| createdAt | date | TimeStamp, when the user was created |
| updatedAt | date | TimeStamp, when the user was last updated |

Reviews:

The review collection will store all the reviews posted by users, where users will be able to add reviews about a particular business, write description and post images.

| reviews:{  \_id: “7b7997a2-c0d2-4f8c-b27a-6a1d4b5b6310”,  businessId: “7b7997a2-c0d2-4f8c-b27a-6a1d4b5b6310”,  userId: “7b7997a2-c0d2-4f8c-b27a-6a1d4b5b6310”,  categoryId: “7b7997a2-c0d2-4f8c-b27a-6a1d4b5b6310”,  rating: 4,  reviewText: “The ambience of Napoli's pizzeria was amazing and food was delightful as well. A must visit resto”,  images: binary data,  thumsUp: [“7b7997a2-c0d2-4f8c-b27a-6a1d4b5b6310”,  “7b696a2-d0f2-4g8g-h67d-7a1d4b6b6710”],  thumsDown: [“7b7997a2-c0d2-4f8c-b27a-6a1d4b5b6310”,  “7b696a2-d0f2-4g8g-h67d-7a1d4b6b6710”],  createdAt: 2022-02-26T16:37:48.244Z,  updatedAt: 2022-02-26T16:37:48.244Z, }, |
| --- |
|  |
|

| **Name** | **Type** | **Description** |
| --- | --- | --- |
| \_id | string | A globally unique identifier to represent the review. |
| businessId | string | Id of a business that a particular reviews belong to |
| userId | string | Id of user which has posted this review |
| categoryId | string | Id of category that a particular reviews belong to |
| rating | Number | Rating of the review on the scale of 1-5 |
| reviewText | string | The description of the review that a users provide |
| images | binary data | Image of review |
| thumsUp | array | An array that stores the tags of users which have given positive reaction to the review |
| thumsDown | array | An array that stores the tags of users which have given negative reaction to the review |
| createdAt | date | TimeStamp, when the review was created |
| updatedAt | date | TimeStamp, when the review was last updated |

Category:

The category collection will store all the categories that multiple businesses fall under.

| category:{  \_id: “7b7997a2-c0d2-4f8c-b27a-6a1d4b5b6310”,  name: “Restaurant”,  tags: [“non-veg”, “veg”, “liquor”],  createdAt: 2022-02-26T16:37:48.244Z,  updatedAt: 2022-02-26T16:37:48.244Z, }, |
| --- |

| **Name** | **Type** | **Description** |
| --- | --- | --- |
| \_id | string | A globally unique identifier to represent the category. |
| name | string | The name of the category |
| tags | array | An array that stores the tags of category |
| createdAt | Date | TimeStamp, when the category was last created |
| updatedAt | Date | TimeStamp, when the category was last updated |

Business:

The business collection will store all the business of different categories.

| business:{  \_id: “7b7997a2-c0d2-4f8c-b27a-6a1d4b5b6310”,  name: “Napoli's Pizzeria”  categoryId: “7b7997a2-c0d2-4f8c-b27a-6a1d4b5b6310”,  location: {  firstLine: “1118 Washington St”,  secondLine: “Apt 1”,  country: “US”,  city: “Hoboken”,  state: “NJ”,  zip: “07307”,  },  averageRating: 4.5,  createdAt: 2022-02-26T16:37:48.244Z,  updatedAt: 2022-02-26T16:37:48.244Z } |
| --- |

| **Name** | **Type** | **Description** |
| --- | --- | --- |
| \_id | string | A globally unique identifier to represent the business. |
| name | string | The name of the business. |
| categoryId | string | The category id to which a particular business belongs |
| location | subDocument | A subdocument that stores address, zip code, state, city and country and their type is string |
| averageRating | float | The average rating of all the reviews posted by users of a particular business. |
| createdAt | Date | TimeStamp, when the business was last created |
| updatedAt | Date | TimeStamp, when the business was last updated |

Comment:

The comment collection will store all the comments written by the user for a particular review.

| comment{  \_id: “7b7997a2-c0d2-4f8c-b27a-6a1d4b5b6310”,  reviewId: “7b7997a2-c0d2-4f8c-b27a-6a1d4b5b6310”,  userId: “7b7997a2-c0d2-4f8c-b27a-6a1d4b5b6310”,  commentDescription: “I agree with the reviews of Napoli’s Pizzeria”  createdAt: 2022-02-26T16:37:48.244Z,  updatedAt: 2022-02-26T16:37:48.244Z } |
| --- |

| **Name** | **Type** | **Description** |
| --- | --- | --- |
| \_id | string | A globally unique identifier to represent the comment. |
| reviewId | string | The review id to which a particular comment belongs |
| userId | string | The user id of user who wrote the comment |
| commentDescription | string | The actual comment |
| createdAt | Date | TimeStamp, when the comment was last created |