

CS 546 Database Proposal:

BoardHub

Team Members:

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Users:

The user collection will store all users. Users can log in w/ their credentials. They also have a list of the board id's that they have access to.

```
{
  "_id": "6b7997a2-c0d2-4f8c-b27a-6a1d4b5b6310",
  "email": "mpolimen@stevens.edu",
  "firstName": "Marco",
  "lastName": "Polimeni",
  "color": "#621063",
  "hashedPassword": "$3a$08$yWc6UiCeSbNOFgK0M",
  "boards": ["5b7997a2-c0d2-4f8c-b27a-6a1d4b5b6310",
    "4b7997a2-c0d2-4f8c-b27a-6a1d4b5b6310"]
}
```

Name	Type	Description
_id	String	Mongo generated id that is unique to the user for identification.
email	String	User email for account verification/ notification. Used to log in. Should also be unique.
firstName	String	Users first name.
lastName	String	Users last name.
color	String	Randomly generated hex id of a unique color.
hashedPassword	String	The hash value of the users password used for login.
boards	Array of Strings	List of unique id's of boards the user is a member of.

Boards:

The boards collection will store all the boards created by users. It stores it's necessary identification information and sub-documents for the lists and cards it contains.

```
{
  "_id": "6b7887a2-c0d2-4f8c-b27a-6ahwe3",
  "boardName": "My BoardHub Board",
  "boardColor": "#aaaaaa",
  "description": "this is a board to help my team make websites. :("
  "members": ["6b7997a2-c0d2-4f8c-b27a-6a1d4b5b6310",
    "4b7997a2-c0d2-4f8c-b27a-6a1d4b5b6310"],
  "lists": [{
    "_id": "6b7997a2-c0d2-4f8c-b27a-6a1d4b5b6310",
    "listName": "Category 1",
    "cardIds": ["6b7997a2-c0d2-4f8c-b27a-6a1d4b5b6310",
      "4b7997a2-c0d2-4f8c-b27a-6a1d4b5b6310"]
  },
  {
    "_id": "6b7997a2-c0d2-4f8c-b27a-6a1d4b5b6310",
    "listName": "Category 2",
    "cardIds": ["6b7597a2-c0d2-4f8c-b27a-6a1d4b5b6310",
      "4b7997a2-c0d2-4f8c-b27a-6a1d6b5b6310"]
  }
  ],
  "cards": [{
    "_id": "5cfwef3u3-ffwewe-6a1d4b5b6310",
    "cardName": "task 1",
    "storyPoints": 1,
    "description": "this task is setting up the repository",
    "labels": [{_id: "997a2-c0d2-4f8c-b27a-6", text: "github",
      color: "#aaaaaa"},
      {_id: "3c-b27a-6a1d4", text: "project-management",
        color: "#bbbbbb"}],
    "dueDate": {"date": "03/14/2020*05:13:11", "done": false},
    "comments": [{ "_id": "7djinweja2-c3jfejfjed2-4f8c-bewfwef27a-6",
      "user": "6b7997a2-c0d2-4f8c-b27a-6a1d4b5b6310",
      "date": "3/14/2020*05:13:11", "comment": "Marco drinks milk"
    }],
    "assigned": ["6b7997a2-c0d2-4f8c-b27a-6a1d4b5b6310",
      "4b7997a2-c0d2-4f8c-b27a-6a1d4b5b6310"],
    "list": "6b7997a2-c0d2-4f8c-b27a-6a1d4b5b6310"
  }
  ]
}
```

Name	Type	Description
_id	String	Mongo generated id that is unique to the board.
boardName	String	Title of board.
boardColor	String	Randomly generated hex id of a unique color.
description	String	Describes the utility of the board for the people working on it.
members	Array of Strings	Array of user ids that are members of the board.
lists	Sub-Document	Containers to organize cards.
cards	Sub-Document	Contains the task, story points, description, labels, due date, comments, and users assigned to the task

Lists:

Containers to organize cards. A Sub-Document of boards.

```
{
  "_id": "6b7887a2-c0d2-4f8c-b27a-6ahwe3",
  "listName": "To-Do",
  "cardIds": ["6b7997a2-c0d2-4f8c-b27a-6a1d4b5b6310",
              "4b7997a2-c0d2-4f8c-b27a-6a1d4b5b6310"]
}
```

Name	Type	Description
_id	String	Mongo generated id that is unique to the list.
listName	String	Title of list.
cardIds	Array of Strings	Array of card id's. Order is important.

Cards:

Cards are used to describe the tasks that are being tracked within the board. A Sub-Document of boards.

```
{
  "_id": "5cfwef3u3-ffwewe-6a1d4b5b6310",
  "cardName": "item 1",
  "storyPoints": 3,
  "description": "this task is about styling the css",
  "labels": [{ "_id": "997a2-c0d2-4f8c-b27a-6", text: "front-end",
    color: "#aaaaaa"},
    { "_id": "3c-b27a-6a1d4", text: "back-end", color: "#bbbbbb"}],
  "dueDate": { "date": "03/14/2020*05:13:11", "done": true},
  "comments": [{ "_id": "7djnweja2-c3jfejfjed2-4f8c-bewfwef27a-6",
    "user": "6b7997a2-c0d2-4f8c-b27a-6a1d4b5b6310",
    "date": "03/14/2020*05:13:11", "comment": "Marco drinks milk" }],
  "assigned": ["6b7997a2-c0d2-4f8c-b27a-6a1d4b5b6310",
    "4b7997a2-c0d2-4f8c-b27a-6a1d4b5b6310"],
  "list": "6b7887a2-c0d2-4f8c-b27a-6ahwe3"
}
```

Name	Type	Description
_id	String	Mongo generated id that is unique to the card.
cardName	String	The name of the card.
storyPoints	Number	A quantified estimate of how much effort is required to complete the task.
description	String	Describes the task/objective of the card.
labels	Sub-Document	Each label object holds the unique id of the label, the text in the label, and the color code for the label
dueDate	Object	Holds the date and time that the card is due, and whether the card is complete.
comments	Sub-Document	Comments made by users. Each object stores the userID, the date and time created, and the comment made by the user.
assigned	Array of Strings	Users that are assigned to work on the card.
list	String	Mongo generated id that is unique to the list that the card falls under.

Labels:

A colored label that has optional text to further categorize cards. A Sub-Document of cards.

```
{
  "_id": "997a2-c0d2-4f8c-b27a-6",
  "text": "front-end",
  "color": "#aaaaaa"
}
```

Name	Type	Description
_id	String	Mongo generated id that is unique to the card.
text	String	The text shown in the label.
color	String	The hex code for the color of the label.

Comments:

Comments are left by users on cards along with the date of when the comment was made. A Sub-Document of cards.

```
{
  "_id": "7djnweja2-c3jfejfjed2-4f8c-bewfwef27a-6",
  "user": "6b7997a2-c0d2-4f8c-b27a-6a1d4b5b6310",
  "date": "03/14/2020*05:13:11",
  "comment": "Marco drinks milk."
}
```

Name	Type	Description
_id	String	Mongo generated id that is unique to the comment.
user	String	userId of the user that made the comment.
date	String	The date and time the comment was created.
comment	String	The comment that the user made.