

Web API development

Quiz and too do list website

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# introduction

Due to time restraints I have made the decision to develop my front and back end separately, I have split the tasks into two sections:

* Back end database management (POST, GET , DELETE)
* Front end (HTML, CSS, BOOTSTRAP, NAVIGATION)

## backend design and development

I decided to make use of NodeJS inbuilt library’s such as express, mongoose, and body-parser. Each of these are very useful and are required to make a seamless system. I used express to manage my server calls, I have done this because it is easy to manage and run requests with ease and elegancy. body-parser is used as middle ware between my html code and the server requests. I made sure to modules the code as much as possible to make unit testing, and readability as high as possible with robust functionality in mind.

To achieve log in security I have attempted to use mongoDB’s own log in system on there files to limit user activity, doing this will “hand off” the security to mongoDB ensuring a secure system. User creation will in turn create a new user for the table specified by their user name and password. When logging in the user will have to make a new connection to every page meaning the data will have to be stored in the html

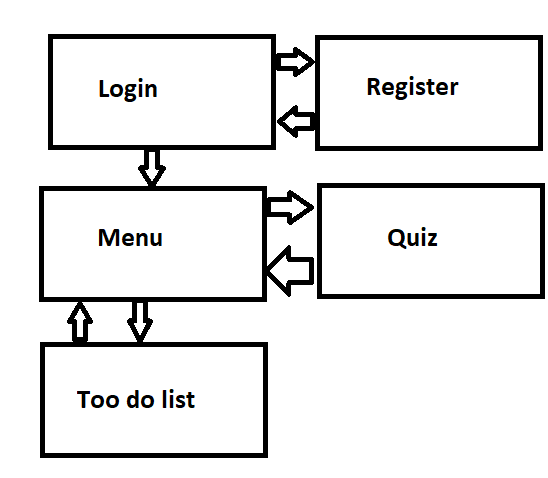


(EXAMPLE: Signing into mongoDB code and middle ware)

## backend Testsing

This will be done using video demonstration, using postman I will be able to show requests and responses from the server. I will also be hosting my mongoDB on MLab and show that the information has in fact been added.

## frontend design and development

The pages I am using are:

**LOGIN**-this will be where the user can input there log in information and get access to the whole system

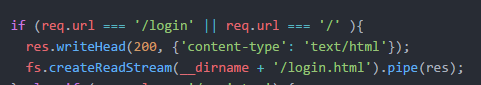
**Register**-simple html page allowing the user to create a new profile, after they have done this they are taken back to the logins screen to sig in there details

**Too do list-** add and remove things on the a active list

**Quiz-**a JavaScript quiz to test your math’s

(NAVAGATION DIAGRAM)

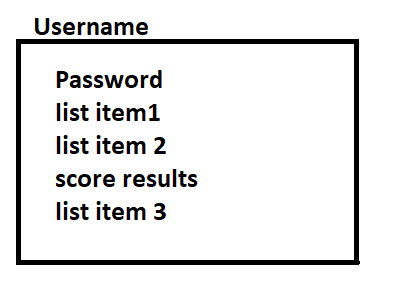
I will also be running a small node sever on this section to aid with demonstrating how everything links together, for this I am not using express to demonstrate how piping can be used in NodeJS.



# Frontend Testing

Testing will be done as a demonstration where ill show the screen as a navigate through the system, this will also showcase the NodeJS and piping I have Implemented.

# Database structure

I have decided to use mongoDB for my database because I have sufficient experiences in it to be able to develop with it properly as well as the diversity and dexterity that come with mongoDB. Each user will be made a table and their log in details are then brought to the right table (table being called the username) if Mongo response with a pass then the user has access to his or her table. All data about this person will be put in this table and searched for when needed. The reason for this “lose” data structure is so that when I expand my web sites functionality it will be easy using the existing data structure to handle all requests.

# Feature development

Ideally, I would like to see this turn into a study aid with more than one sample quiz and more information on the list, as well as add reminders, and progress. Given more time I feel I have shown all the ability needed to develop a commercial app.

# Video link

<https://livecoventryac-my.sharepoint.com/personal/millerl4_uni_coventry_ac_uk/_layouts/15/guestaccess.aspx?guestaccesstoken=zwO2J6mH5YI6ijRhyf67zM6CrjuCdJfVezokWcAYzWM%3D&docid=2_15723f777354348de96d7d63fc3a42174&rev=1&e=e17a76a63ca447cebda027f7aa436599>

# github