Project Work Proposals

**Note:** Please use the [GitLab Issues](https://gitlab.com/ltu-dsm-project/mental-health-data-access/issues) page to keep track of individual work items.

Sign-Up

* [Angular](https://angular.io/) frontend for web app
  + Chris
  + Sonali
* Database replacement for MS Access
  + Uzma: will study the current database structure and contents, select a more promising alternative to MS Access and migrate the data
  + Mengyi: interested in how to improve and connect to the database to the program, SQL maybe applied. 【Currently Vague recognition 】
* Access control / security
  + Peter - can create hierarchy of user permissions within the database…. The tasks on this role depends on how we want to store the user’s data because right now we have it all stored in microsoft access but from what I heard in the meeting it seems we want to store the data elsewhere - if it is stored on a database server then I can be responsible for securing the connection between the application and server being stored on it and the user permissions policy that can be enforced on the server.
* Establish source control
  + Chris
    - [GitHub](https://github.com/pricing)
      * Up to 3 collaborators on one private repository on Free plan
      * Unlimited collaborators on one private repository on Pro plan ($7/month)
    - [GitLab](https://about.gitlab.com/pricing/)
      * Unlimited collaborators on a private repository for all plans (including free)
    - Also: Consider CI/CD features for the above options (automated testing and deployment to web server)?
* Add previous cases database using ML principals
  + 「Diagnostic/Prediction」 section:
    - Mengyi: would like to help with prediction and text mining algorithms. But text/data pre-processing required.
  + 「Question」 generating based on ML skills.

-----------------------------------------------------Prototype required to validate the idea

* + - Generate the related questions automatically according to World vector calculation or else.
    - Information retrieval skills in handling the feature, diagnostic features need to be ready.
* Show multiple matches and percentages / more configuration options
  + Sal
    - Do this with updating views and adding new settings view/button
      * Workflow will require rework to include configurable feature of showing 3-5 disorders. May need to add “Settings” view for this which ties into “Configurable Options”
* Need to fix issues inherent in the logic
  + Sal
    - Logic is inherently simple, so if symptoms entered match multiple diagnoses IDs, could potentially give mixed results.
    - Could have a 50% match earlier in the list shown, even if you have a better match further down in the list.
    - Large number of “symptoms” in the db are unnecessary words or duplicate to multiple other disorders. Need to either handle that when calculating match to disorder or update db to not include duplicate symptoms and junk words.
    - Consider adding logic to use n-grams instead of single words.
* Sonali mentioned interest
  + Fix the python NLP text issues. Primarily an issue with the python code not passing parameters out. -Sal pushed small change to Master branch of code to skip python NLP and just do basic text cleaning with java.