Peer Connect - A Peer Review Platform for Students

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Project Functionality & Goals

Peer Connect is a platform that allows students to connect with other students for the purpose of peer review. Users can create accounts and upload their assignments and other documents to the platform for others to see and review. If the user attached a rubric and a marking scheme, peer reviewers can grade and review the assignment based on this criteria, otherwise, the assignment will be marked out of 100. Peer reviewers can find documents to mark on the search page, which allows users to search for assignments or sort by different metrics such as topic, grade level, number of reviews, recommended, and more. This will allow students to improve their work, learn from others, or determine if the grade they have earned is appropriate.

Users will also be able to view and connect with other students to build connections and work together with others. Each user will have their own user profile to display their traits, such as level of education, best subjects, description, school, and more. Accounts will also be able to link different social portals such as their email and other contacts, and set it to public or private. All of this data will be stored in a database which is hosted so that it can be saved and accessed online.

User Interaction/Interface

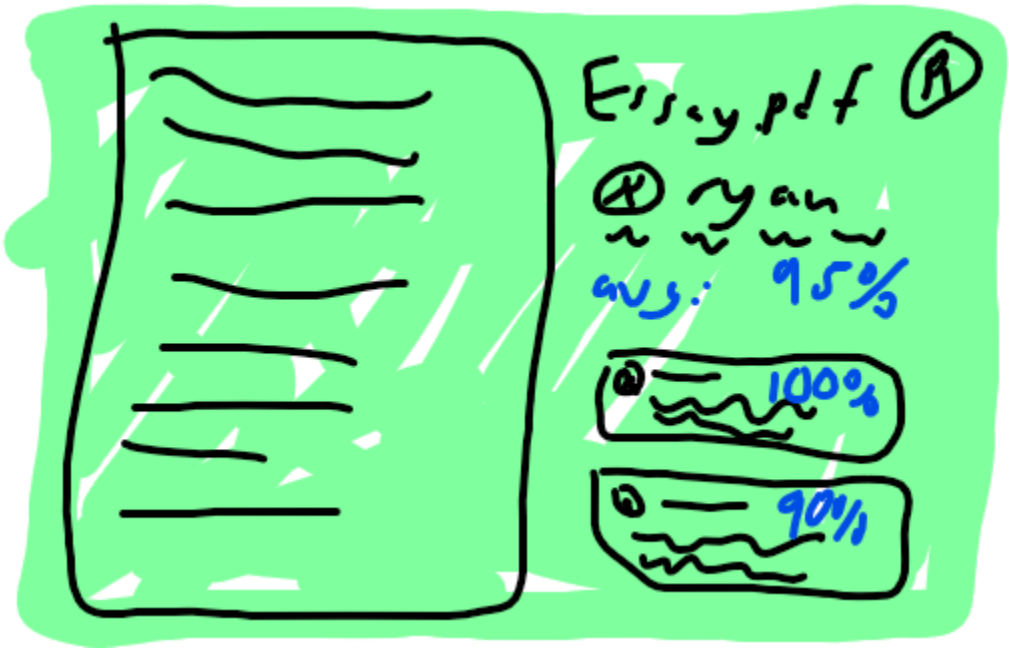
- User Interface will be made using Java/Swing
- User is first prompted with a login page to create or login to an account
- User is then brought to main/search page, which displays all published documents
    - User can scroll through the page and use different sorts to find documents
    - User can select a document to view and/or peer edit
- When a document is selected, it will display the full document, as well as a peer reviewing dock on the side to give feedback or read the feedback of others
    - Similar to turnitin
- Users can upload their documents and add different tags/notes to them
    - Addable things include grade level, subject, marking scheme, etc.
- Users can navigate to their own profile
    - Users can configure their profile (grade, favourite subjects, etc.)
- Users can navigate to other people's profiles
    - Find/Request contact information
- Profiles display a user's documents and reviews

High Level Pseudocode:

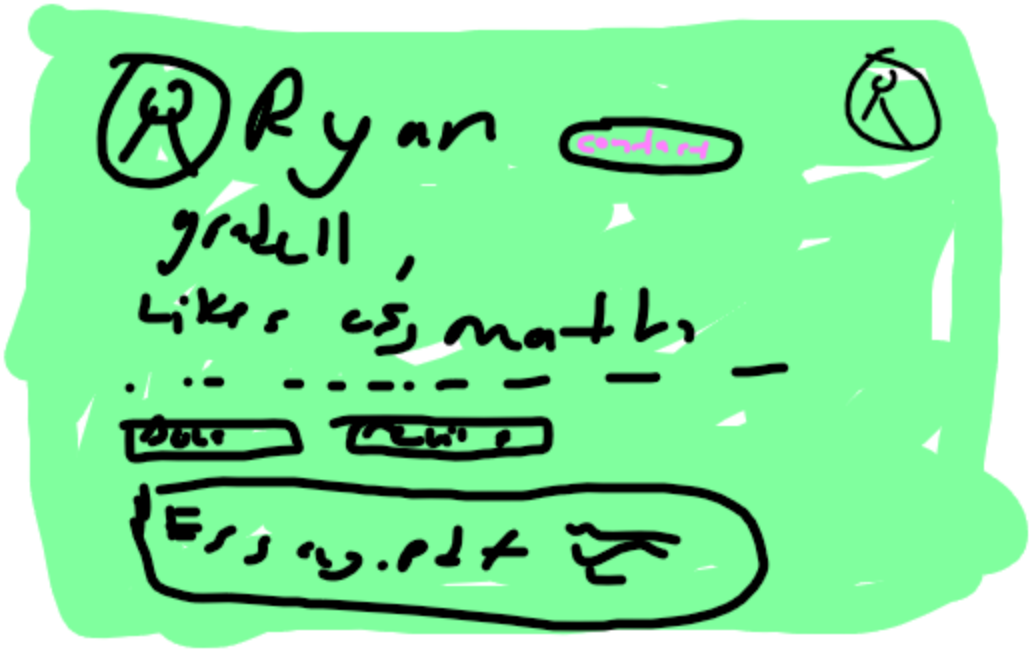
- ➔ User login/signup
  - ◆ Find/add from database
  - ◆ Mandatory (Name, Grade, Email) and optional (subjects, contact details) information
- ➔ Display documents, search bar, profile icon, and publish document button
  - ◆ Documents are linked to users, vice versa
  - ◆ Sort by metric (Using comparable)
  - ◆ Documents displayed in a scrollable list
- ➔ Publish document
  - ◆ Mandatory (Document, Title) and optional (grading, description) information
  - ◆ Document is uploaded to database (converted to storable format)
    - Likely only accepts pdf files
- ➔ Profile
  - ◆ Display user documents, reviews, and information
  - ◆ Set to private or public
- ➔ Review
  - ◆ Text box to write review
  - ◆ Grade out of 100 or given criteria
- ➔ Database
  - ◆ SQLite is used for the database
  - ◆ MongoDB for server

Rough layout

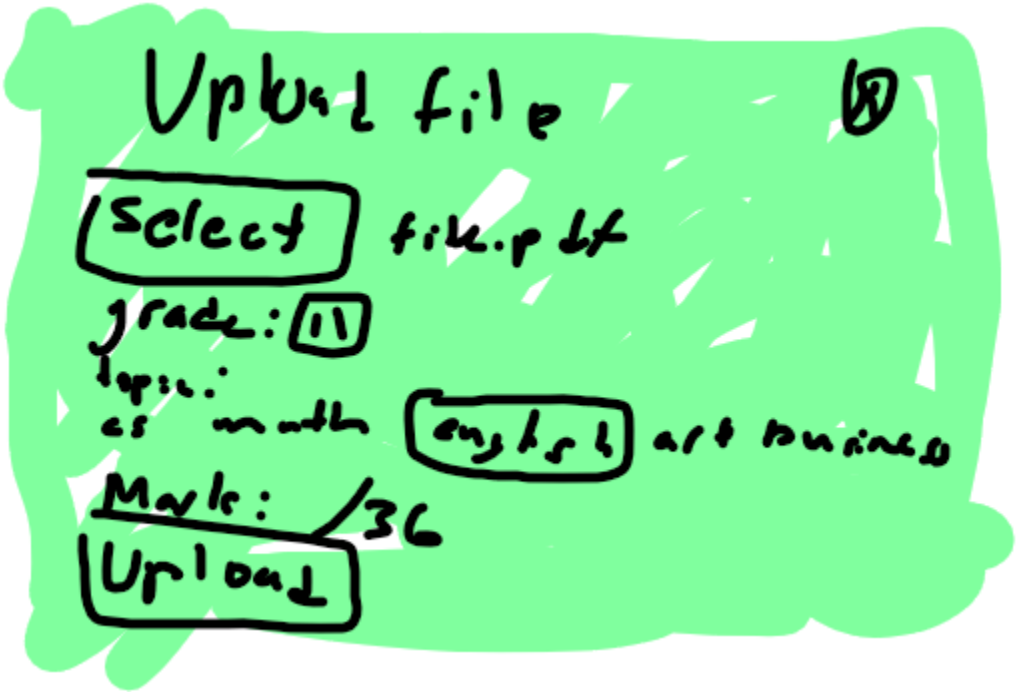
1. 

2. 
Search
Sort: Rec
Essay.pdf
@ryan
95%
Slides.pdf
@Mike
31%
Publish Doc
3. 
Essay.pdf
@ryan
avg: 95%
100%
90%
4.

5.


Ryan
grade 11,
likes cs, maths,
Essay.pdf

6.


Upload file
Select file.pdf
grade: 11
topic:
cs maths english art business
Mark: /36
Upload

Concepts Demonstrated

OOP: User, Documents, Reviews, are all represented as objects

Graphics: User Interface is coded in java swing, with different panels/pages

Data Structures: Different data structures will be used to store data (sets for users, hashmap for files, etc.)

Algorithms: Program will require searching and sorting algorithms to find documents that are relevant to the user

Networking: Different users connect to the same server at the same time

Error Handling: File I/O, etc.

Database/Web Server: Data is stored in a SQLite database and hosted on a web server like MongoDB

Why is it suitable for me (1 person)

- Not too much work for 1 person, with the main difficulty being the web server & networking aspects
- Room for the addition of many more features meaning that if the software ever doesn't feel complete or enough I can just add more