HighlightUp!

Add and share annotations for PDF online

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Sections: D

Group No.: 23

Project Description

We observed that:
1. Most students would frequently highlight important sentences in lecture notes and homework write-up so that they won't miss important points.
2. Sometimes, instructors also want to highlight important knowledge points or instructions in homework write-up for students so that students could pay enough attention to. But there isn't a really efficient way.
3. Students often can learn better when they study in groups and have in-depth discussions on course material.

Thus, we want to build a website where people can share their notes about reading materials.

This website can be used for any course. Instructors simply register their course on our website and let students enroll in. Then, the instructor can upload reading materials. Both students and instructors can make notes in a place like a comment, to highlight what they think people should pay attention to. Also, they can post individual notes, like a summary or their thoughts about this material. In addition, students should also be able to post their questions about it and others are able to help, like Piazza. Students and instructor are able to vote on notes or questions that they think are helpful. People can filter notes to only see notes from instructors, notes from themselves, or most voted notes.

The above is our initial design. This website may also be used as public resources such that every user can upload reading materials that they think is helpful to read and everyone can make notes on it, like a big course with every user in the website enrolled in. However, this idea needs more elaborate design. For example, we believe a classification system is required, otherwise, the website will be chaotic with all kinds of materials. Due to limited time, we may not use this feature.

Technology

Language

Python 3.6

Framework

Django

CSS library

Bootstrap

PDF library

Mozilla/Pdf.js

Data Model
- **User:** Django building user model.
- **Profile:** user role (instructor, student), user level, groups (courses), annotations, voted notes
- **Course:** files, instructors, students
- **Annotation:** course, file, user, number of voted, private/public, content, position
- **File:** name, course, annotations

Functionality

Module: Account Management(chaoyinw)

- Must-have
    - Register: Allow a user to create a unique account
    - Login: Allow a user to login use their username and password
    - User Group: Allow a user to create/attend user groups, such as classes. After joining a group, the user could browse and add annotations to the existing documents in the group, or share their documents if authorized.
    - Role: Different user roles could get access to different functions. For example, normally in a group, only instructors can upload files.
    - User Level: Users will gain a higher user level when they write good annotations or answered more question
- Future Plan
    - User interaction: Currently, we think user interaction (e.g. User follow each other) is not essential. But we may add this feature in the future.
    - Study group: Apart from classes, we may allow users to create their own study group and shared PDF annotations there

Module: File Management (mengxinz)
- Must-have
    - Supported File Types: As for now, we will only support PDF files

- Upload File: Authorized users could upload PDF files to a group
- Delete File: User can delete files
- File display: display pdf file in a viewer in page
- Navigation among files: display all files in a group and user can choose one file to read
- Future Plan
    - Supported File Types: We may add more supported file types in the future

Module: Annotation Management (chaoyinw and mengxinz)
- Must-have
    - Annotation Format: Plain text
    - Annotation type: Note (no reply), question (need answer)
    - Highlight Type: text-highlighting
    - User Interaction: Favourite an annotation, add follow-ups to an annotation, answer the question
    - Annotation Authority: An annotation could be a private or public annotation
    - Annotation Search/Filter: Annotations could be searched by keywords. Users could filter the annotations by User Role (instructor/student), user level, popularity, privacy
    - Annotation Sidebar: List all the annotations and comments (after filtered) of a PDF in the sidebar
- Future Plan
    - Annotation Format: Latex equation editor, code block and markdown
    - Highlight Type: area-highlighting, a snapshot of file
    - Discussion Area: An area behind the PDF to allow further discussion of the file
    - Tags: Add tags to annotations so that it could be easily searched

Wireframe

Login Page

Highlight Up !

Username

password

☐ Remember me

Login

Forgot passord ?

No Account ? Register

Register Page

Highlight Up !

Username

Email Address

First Name

Last Name

Password

Confirm Password

Register

Have an Account ? Login

Main Stream

Homework

Homework	Due Date
Homework 1. pdf	xxxx - xx - xx

Homework Solutions

Homework 1 - solution . pdf
Homework 2 - solution . pdf

Lecture Notes

Lecture 1. pdf
. . .
. . .

General Resources

Introduction . Pdf
More Infor . pdf .

Annotation Page

Notes | Q&A

Filter Annotation 🔍

Homework 1 . pdf

" First line xxxx "
User A

Pay attention here ! ⭐8↑
▽

" Second Line xxxx "
User B

This is hard. But ·· 🅰12
▽
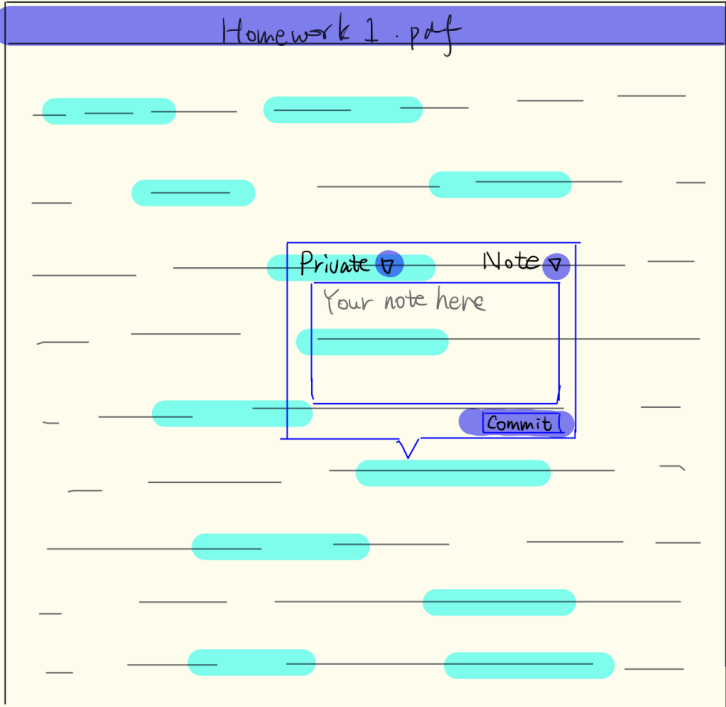
" Third Line xxx "
Chaqing ✕

Remember to add x here.
private

" Fourth Line xxx "
Charlie ✔

This is a typo here.

Private ▽   Note ▽

Your note here

Commit

Profile Settings

Highlight Up !

Group : 17-657 Web Application ▽   Chaoying Wang ⚙

Account Settings

Personal Settings

   Full Name : | Chaoying Wang |

   Password   =   change password

      Email   = | chaoyihw @ cmu.edu |

| Change Pic |

Save Profile
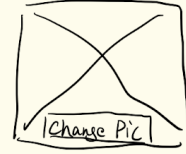
Class & Group Settings

| 17637 | Web application |
   xxx   ✗ Drop class

| 15640 | Distributed System |
   xxx   ✗ Drop class

| 17657   Project Group |
   xxx   ✗ Leave Group