Class name: User
Parent class: N/A
Classname Subclasses (if any): Instructor, Student, Visitor

Responsibilities:
- Represent a generic User
- A user can be part of multiple courses

Collaborators: Course

Class name: Instructor
Parent class: User
Classname Subclasses (if any): N/A

Responsibilities:
- Represent an instructor
- An Instructor can create and delete a course
- An Instructor can add users to a course

Collaborators: N/A

Class name: Student
Parent class: User
Classname Subclasses (if any): TeachingAssistant

Responsibilities: Represent a student

Collaborators: N/A

Class name: TeachingAssistant
Parent class: Student
Classname Subclasses (if any): N/A

Responsibilities: Represent a teaching assistant

Collaborators: N/A

Class name: UserAccount
Parent class: N/A
Classname Subclasses (if any): N/A

Responsibilities:
- A UserAccount will manage a user of the application (registered / unregistered).
- Singleton design to ensure only one user is logged in at a time.

Collaborators: User, Login, Register, Validator

Class name: Login
Parent class: N/A
Classname Subclasses (if any): N/A

Responsibilities: Represent the login information of a user. Change username and password.

Collaborators: N/A

Class name: Validator
Parent class: N/A
Classname Subclasses (if any): N/A

Responsibilities:
- Validate a login object (username and password is valid format)
- Check if user exists

Collaborators: Login

Class name: Register
Parent class: N/A
Classname Subclasses (if any): N/A

Responsibilities:
- Register a new user with valid user data (login data).
- If data is valid, add user data to the database and return to AccountHandler

Collaborators: Validator

Class name: AccountHandler
Parent class: N/A
Classname Subclasses (if any): N/A

Responsibilities:
- Register / Login a user
- Populate the UserAccount with valid information on login.
- User Register to create a new record when registering a new user.

- Logout a user

Collaborators: Validator, Register, Login

Class name: File
Parent class: N/A
Classname Subclasses (if any): N/A

Responsibilities:
- Represent a file that is uploaded to the app
- A file can be public / private
- A file knows what Course it belongs to

Collaborators: Course

Class name: Course
Parent class: N/A
Classname Subclasses (if any): N/A

Responsibilities:
- Represent a course
- A course knows it's enrolled users and files

Collaborators: User, File

Class name: IndexHandler
Parent class: N/A
Classname Subclasses (if any): N/A

Responsibilities:
- Add a file to the master index
- Remove a file from the master index
- Update an index record
- Search through the index based on file type / course / visibility (public / private)

Collaborators: File, UserAccount, Course

Class name: Uploader
Parent class: N/A
Classname Subclasses (if any): N/A

Responsibilities:
- Create and delete files

- Use IndexHandler to add to the index Collaborators: File, IndexHandler

Class name: SearchEngine
Parent class: N/A
Classname Subclasses (if any): N/A
 	
Responsibilities:
    - Run a query using the indexer
    - Display query results
 	
Collaborators: Uploader, IndexHandler