

Class name: **User**

Parent class (if any):

Classname Subclasses (if any): RegisteredUser, Guest

Responsibilities:

- Keep track of permissions
- Perform actions allowed by user

Collaborators:

- Search
- FileStorage
- Login
- Register

Class name: **RegisteredUser**

Parent class (if any): User

Classname Subclasses (if any):

Responsibilities:

- Can perform searches, and uploads on files
- Can log out

Collaborators:

- FileStorage
- Search
- Login

Class name: **Admin**

Parent class (if any): RegisteredUser

Classname Subclasses (if any):

Responsibilities:

- Can change passwords, and User details of other users
- Can perform searches, and uploads on files
- Can create accounts

Collaborators:

- Search
- FileStorage
- Login

Class name: **Student**

Parent class (if any): RegisteredUser

Classname Subclasses (if any):

Responsibilities:

- Can modify own Student details
- Can perform searches, and uploads on files

Collaborators:

- Search
- FileStorage
- Login

Class name: **Instructor**

Parent class (if any): RegisteredUser

Classname Subclasses (if any):

Responsibilities:

- Can modify own Instructor details
- Can perform searches, and uploads on files

Collaborators:

- Search
- FileStorage
- Login

Class name: **Guest**

Parent class (if any): User

Classname Subclasses (if any):

Responsibilities:

- Can create an account
- Can log in
- Can perform searches, and uploads on files

Collaborators:

- Search
- FileStorage
- Register

Class name: **Login**

Parent class (if any):

Classname Subclasses (if any):

Responsibilities:

- Allows Guest to login to a Student / Instructor / Admin account, and gain appropriate privileges.

Collaborators:

- User

Class name: **Register**

Parent class (if any):

Classname Subclasses (if any):

Responsibilities:

- Allows Guest / Admin to create an account

Collaborators:

- User

Class name: **Search**

Parent class (if any):

Classname Subclasses (if any):

Responsibilities:

- Searches through uploaded content by specified attributes and relevance

Collaborators:

- Uses the Apache Lucene library
- Index

Class name: **Index**

Parent class (if any):

Classname Subclasses (if any):

Responsibilities:

- Manages indexing of data collected from file uploads

Collaborators:

- Uses the Apache Lucene library
- FileStorage
- FileParser

Class name: **FileStorage**

Parent class (if any):

Classname Subclasses (if any):

Responsibilities:

- Manages deletion, and addition of files submitted by users

Collaborators:

- Index
- File

Class name: **File**

Parent class (if any):

Classname Subclasses (if any): PdfFile, HtmlFile, TxtFile

Responsibilities:

- Keeps track of the attributes and metadata associated with the file

Collaborators:

- FileParser
- FileStorage

Class name: **PdfFile**

Parent class (if any): File

Classname Subclasses (if any):

Responsibilities:

- Keeps track of the attributes and metadata associated with a PDF file

Collaborators:

- FileParser
- FileStorage

Class name: **HtmlFile**

Parent class (if any): File

Classname Subclasses (if any):

Responsibilities:

- Keeps track of the attributes and metadata associated with an HTML file

Collaborators:

- FileParser
- FileStorage

Class name: **TxtFile**

Parent class (if any): File

Classname Subclasses (if any):

Responsibilities:

- Keeps track of the attributes and metadata associated with a TXT file

Collaborators:

- FileParser
- FileStorage

Class name: **FileParser**

Parent class (if any):

Classname Subclasses (if any):

Responsibilities:

- Parses files of different formats into a uniform format for facilitation of indexing

Collaborators:

- May use external libraries
- File
- Index