Photo

- name : String
- caption : String
- userid : String
- date : Calendar
- tags : Map<String, Set<String>>
- containingAlbums : Set<Album>
- *serialVersionUID : long*

+ Photo(Album, String, String, String, long) : Photo
+ getName() : String
+ getCaption() : String
+ getUserid() : String
+ getDate() : long
+ getContainingAlbums() : Album[*]
+ getTags() : String[*]
+ getTags(String) : String[*]
+ hasTag(String, boolean) : boolean
+ hasTag(String, String) : boolean
+ compareTo(Photo) : integer
+ equals(Object) : boolean
- setup() : void
setCaption(String) : void
addTag(String, String) : boolean
removeTag(String) : boolean
removeTag(String, String) : boolean
addToAlbum(Album) : boolean
removeFromAlbum(Album) : boolean

Album

- name : String
- photos : Map<String, Photo>
- tags : Map<String, Set<Photo>>
- dates : SortedSet<Photo>
- *serialVersionUID : long*

+ Album(String) : Album
+ getName() : String
+ getPhotos() : Photo[*]
+ getPhotos(String, String) : Photo[*]
+ getPhotos(long, long) : Photo[*]
+ getDateRange() : long[2]
# addPhoto(Photo) : boolean
# removePhoto(String) : Photo
# tagsChanged(Photo) : void

User

- name : String
- id : String
- albums : Map<String, Album>
- *serialVersionUID : long*

+ User(String, String) : User
+ setName(String) : boolean
+ setId(String) : boolean
+ addAlbum(String) : boolean
+ removeAlbum(String) : boolean
+ addPhotoToAlbum(Photo, String) : boolean
+ addPhotoToAlbum(String, long, String) : integer
+ addPhotoToAlbum(String, String, long, String) : integer
+ removePhoto(String) : Photo
+ removePhotoFromAlbum(String, String) : Photo
+ addTagToPhoto(String, String, String) : boolean
+ removeTagsFromPhoto(String) : boolean
+ removeTagFromPhoto(String, String) : boolean
+ removeTagFromPhoto(String, String, String) : boolean
+ getName() : String
+ getId() : String
+ getAlbum(String) : Album
+ getAlbums() : Album[*]
+ getPhoto(String) : Photo
+ getPhotos() : Photo[*]
+ getPhotos(String) : Photo[*]
+ getPhotos(String, String) : Photo[*]
+ getPhotos(long, long) : Photo[*]
- addPhoto(Photo, String) : boolean

<<Interface>>
PhotoSource

+ setCurrentUser(String) : void
+ loadUserData() : boolean
+ shutdown() : boolean
+ addUser(String, String) : boolean
+ removeUser(String) : boolean
+ addAlbum(String) : boolean
+ removeAlbum(String) : boolean
+ addPhotoToAlbum(String, String, String) : integer
+ movePhoto(String, String, String) : integer
+ removePhoto(String) : boolean
+ removePhotoFromAlbum(String, String): boolean
+ addTagToPhoto(String, String, String) : boolean
+ addTagToAlbum(String, String, String) : boolean
+ removeTagFromPhoto(String, String) : boolean
+ removeTagFromPhoto(String, String, String) : boolean
+ removeTagFromAlbum(String, String) : boolean
+ removeTagFromAlbum(String, String, String) : boolean
+ getUser(String) : User
+ getAlbums() : Album[*]
+ getPhoto(String) : Photo
+ getPhotos() : Photo[*]
+ getPhotosFromAlbum(String) : Photo[*]
+ getPhotosByDate(long, long) : Photo[*]
+ getPhotosByTag(String, String) : Photo[*]
+ getTagsForPhoto(String) : String[*]

+ method1(Type): Type
+ method2(Type, Type): Type

<<Interface>>
DataWriter

+ loadUser(String) : User
+ writeUser(String) : boolean
+ deleteUser(String) : boolean
+ listUsers() : User[*]

Control

- currentUserId: String
- currentUser : User
- backend : DataWriter

+ Control() : Control

Backend

- directoryCheck() : void
- openInputStream(String) : ObjectInputStream
- openOutputStream(String) : ObjectOutputStream
- closeStream(Closable) : boolean