

<<interface>>
+ ControlInterface

- currentUser: User

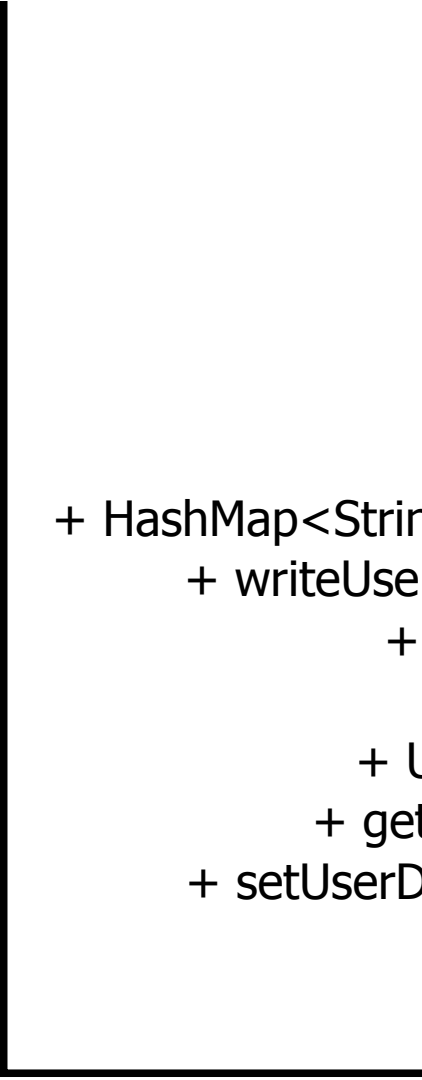
+ listUsers(): ArrayList<User>
+ register(ID:String, userName:String): boolean
+ deleteUser(ID:String): boolean
+ login(userID:String): void
+ setCurrentUser(User userID): void
+ getCurrentUser(): User
+ createAlbum(albumName:String): boolean
+ deleteAlbum(albumName:String): boolean
+ getUserAlbums(): ArrayList<Album>
+ getPhotos(albumName:String): ArrayList<Photo>
+ addPhoto(photoName:String, caption:String, albumName:String, pic:File): int
+ updatePhoto(photoName:String, newCaption:String): boolean
+ renameAlbum(photoName:String, oldAlbum:String, newAlbum:String): int
+ deletePhoto(photoName:String, albumName:String): int
+ addTag(photoName:String, tagName:String, tagType:String, tagValue:String): int
+ deleteTag(photoName:String, tagName:String, tagType:String, tagValue:String): int
+ getPhotosByTag(photoName:String, String tagName, String tagType, String tagValue): int
+ getPhotosByDate(photoName:String, String startDate, String endDate): ArrayList<Photo>
+ getPhotosByTag(photoName:String, ArrayList<String> keys, ArrayList<String> tagByVal): ArrayList<Photo>
+ listPhotoInfo(photoName:String, String fileName): Photo




Amar Bakir
Tolby Lew
ware Methodology
oAlbum Group#31

+ Tag

ype: String
lata: String



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+ HashMap<Strir
+ writeUse|
+
+ l
+ get
+ setUserD
```

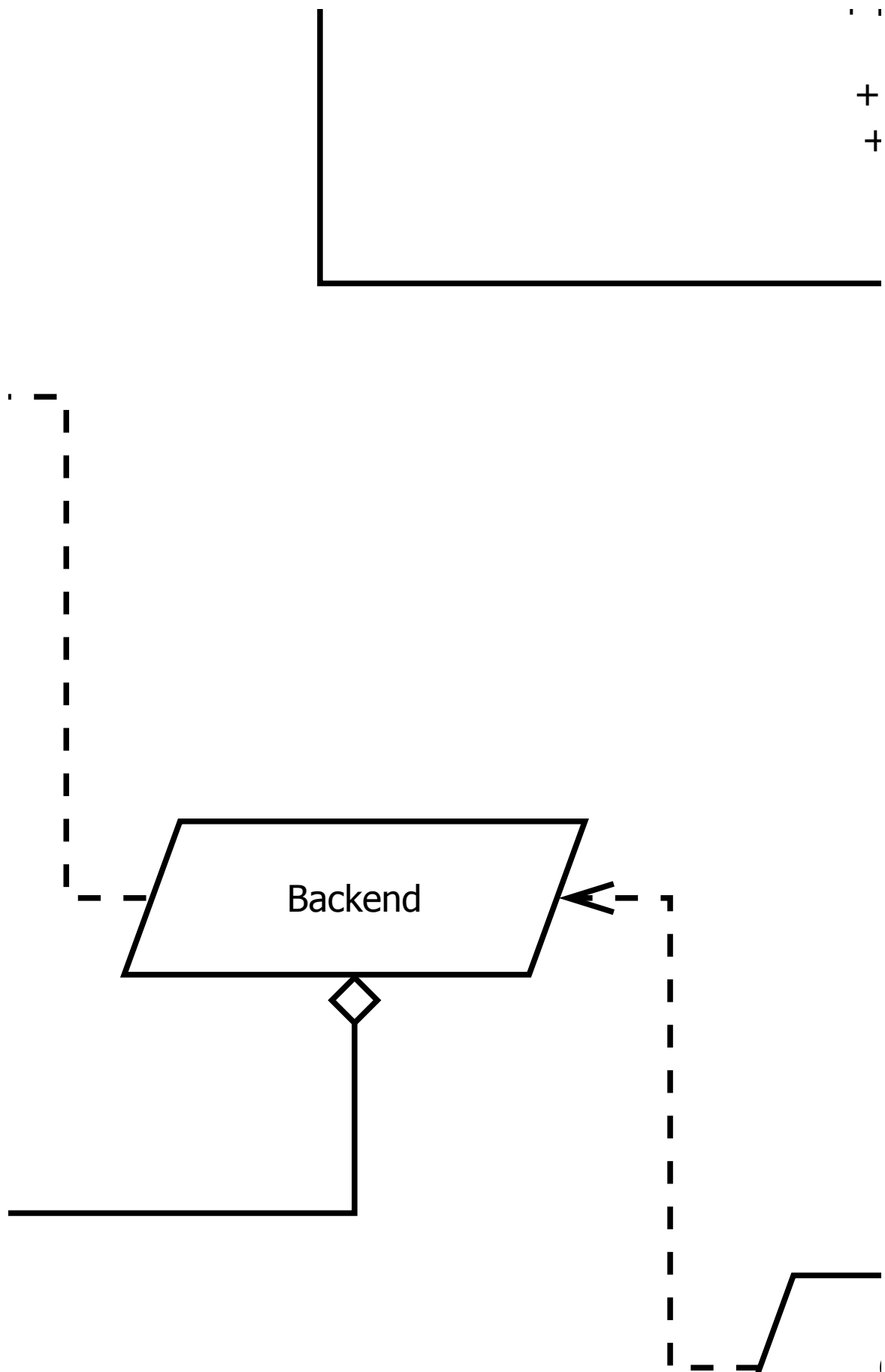


```
<<interface>>
+ BackendInterface

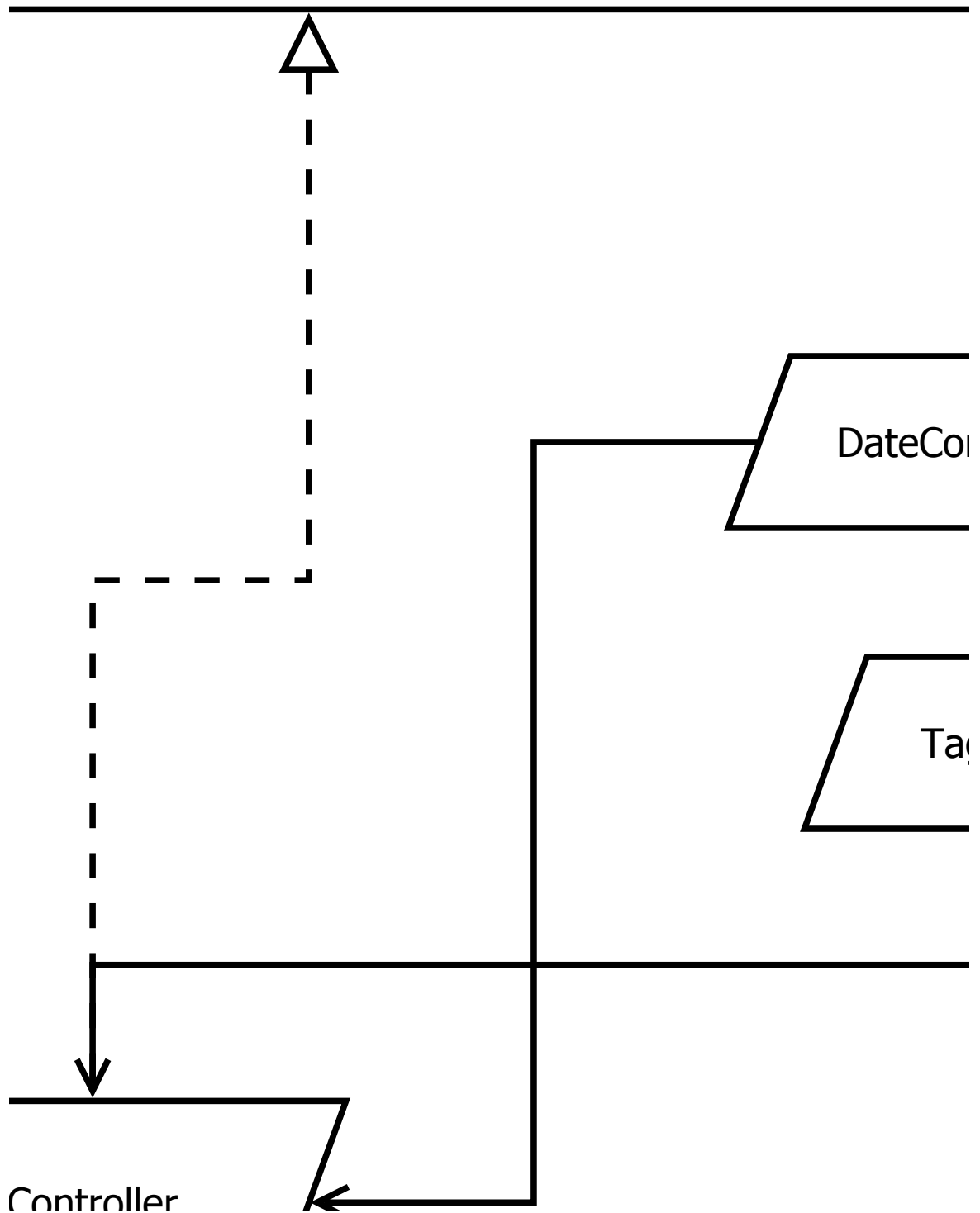
+ final storeDir: String
+ final storeFile: String

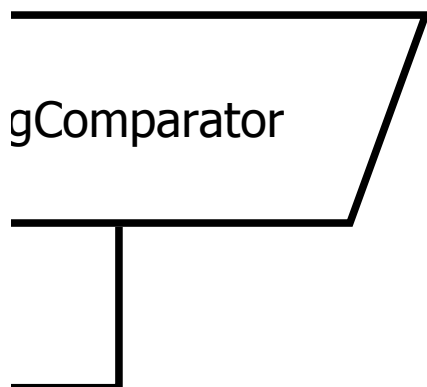
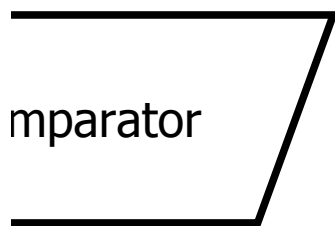
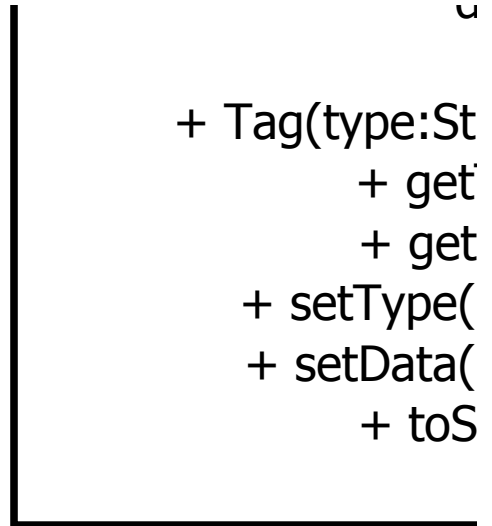
+ readUsers(): HashMap<String, User>
+ writeUsers(userDB:HashMap<String, User>): void
+ deleteUser(userID:String): void
+ void addUser(u:User): void
+ User getUser(userID:String): User
+ getUserDB(): HashMap<String, User>
+ writeUserDB(userDB:HashMap<String, User>): void
```





use recognize(String filename): Photo
+ logout(): void
getStartDate(Album album): String
- getEndDate(Album album): String





data: String

ring, data:String): Tag

Type(): String

Data(): String

nType:String): void

nData:String): void

tring(): String



+ Photo

ame: String

ption: String

ite: Calendar

time: Date

- nic: File

+ User

- static final serialVersion
- ID: String
- userName: String
- myAlbums: HashMap<String, Album>
- myTags: HashMap<String, String>
- myPhotos: HashMap<String, Photo>

+ User(ID:String, userName:String)

- + setID(ID:String): void
- + setUserName(userName:String): void
- + getID(): String
- + getUserName(): String
- + addAlbum(albumName:String, album:Album): void
- + deleteAlbum(name:String): void
- + renameAlbum(albumName:String, newName:String): void
- + getMyAlbums(): HashMap<String, Album>
- + getMyPhotos(): HashMap<String, Photo>
- + photosByDate(date:String): List<Photo>
- + findAlbum(albumName:String): Album
- + findPhoto(photoName:String): Photo

UID: long

ng

ing, Album>

ing, Tag>

ing, Photo>

:String): User

void

String): void

g

string

album): void

ing): void

newName:String): void

String, Album>

String, Photo>

ing): void

:ring): Album

ring): Photo





+ Album

- static final long serialVer
+ albumName: S
+ ID: String
+ userName: St
+ photos: HashMap<Str
+ numPhotos:
+ startDate: Cale
+ endDate: Cale

+ Album(albumName:String, userName:!
+ setName(albumName:
+ getName(): S
+ addPhoto(photo:Ph
+ deletePhoto(fileName:
+ getPhotos(): HashMap<
+ setPhotoList(photos:HashMap<

Controller

versionUID: long
String
|
tring
ring, Photo>
int
endar
endar

String, userID:String): Album
:String): void
tring
oto): void
:String): void
String, Photo>
:String, Photo>): void



- tags: Has
- tagsByVal
- sortedTag
- albums:

```
+ Photo(name:String, captior
  + setName(
    + getI
+ setCaption(
  + getC
+ addAlbum(
+ deleteAlbu
+ getAlbums
  + set
  + getC
  + getDa
+ getTags(): List
+ getTagsByV
+ setTags(tags:Has
  + addT
  + deleteT
+ setTagsList(tags
  + getSortedT
```

```
    pic: File
    tags: HashMap<String, Tag>
    albums: ArrayList<String>
    captions: ArrayList<String>
```

```
    constructor(id: String, album: String, pic: File): Photo()
    constructor(name: String): void
    getName(): String
    setName(name: String): void
    getCaption(): String
    setCaption(caption: String): void
    getAlbum(): String
    setAlbum(album: String): void
    getTags(): ArrayList<String>
    addTags(): void
    getCalendar(): Date
    getDateString(): String
    getTagsMap(): HashMap<String, Tag>
    getAlbums(): ArrayList<String>
    addTagsMap(tagsMap: HashMap<String, Tag>): void
    addTag(t: Tag): void
    addTag(t: String): void
    getTagsList(): ArrayList<Tag>
    addTags(tags: ArrayList<Tag>)
```