

Photos

```
+ start(stage: Stage): void
+ stop(): void
+ main(args: String[]): void
```

Picture

```
+ caption: String
+ date: LocalDateTime
+ tags: HashMap<String, ArrayList<String>>
```

```
<<constructor>> Picture(file: File)
```

User

```
+ albums: HashMap<String, ArrayList<String>>
+ pictures: HashMap<String, Picture>
+ tagnames: HashMap<String, Boolean>
```

```
<<constructor>> User()
```

SceneManager

```
<<constructor>> SceneManager(mainStage: Stage)
+ switchScene(fxml: String, users: HashMap<String, User>): void
+ openScene(fxml: String, controller: Controller): void
+ readUsers(): HashMap<String, User>
+ writeUsers(users: HashMap<String, User>): void
```

Controller

```
+ users: HashMap<String, User>
+ currUser: User
+ currAlbum: String
+ currPhoto: String
+ albumScope: boolean
```

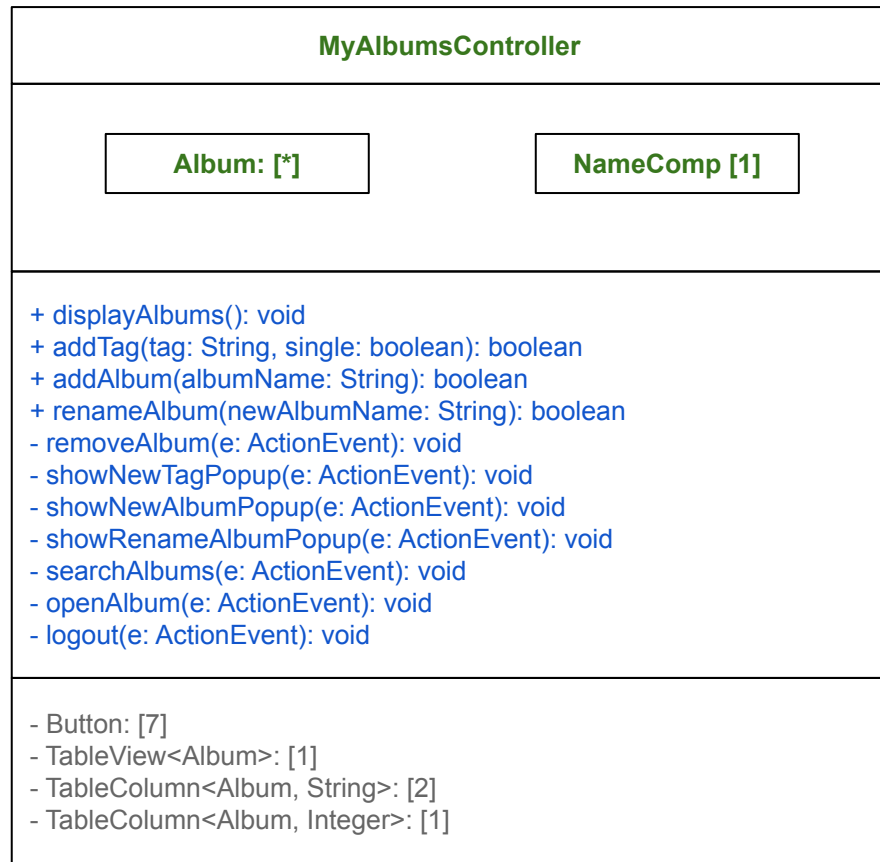
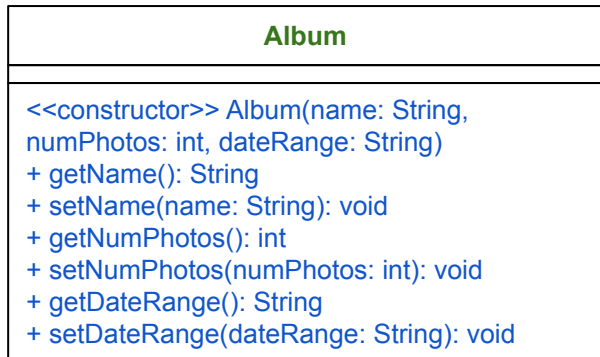
```
+ setSceneManager(sceneManager: SceneManager): void
+ setUsers(userData: HashMap<String, User>): void
+ setCurrUser(user: User): void
+ setCurrAlbum(albumName: String): void
+ setCurrPhoto(photoPath: String): void
+ setAlbumScope(b: boolean): void
```

LoginController
+ login(e: ActionEvent)
<ul style="list-style-type: none"> - Button: [1] - TextField: [1]

PhotoDisplayController
<ul style="list-style-type: none"> + displaySingle(): void + displayTag(name: String, val: String): void - goBack(e: ActionEvent): void - logout(e: ActionEvent): void - displayPrevious(e: ActionEvent): void - displayNext(e: ActionEvent): void + editCaption(cap: String): void - showEditCaptionPopup(e: ActionEvent): void + addTag(tagName: String, tagVal: String): int - showAddTagPopup(e: ActionEvent): void - deleteTag(e: ActionEvent): void + copyPhoto(otherAlbum: String): boolean - showCopyPhotoPopup(e: ActionEvent): void + movePhoto(otherAlbum: String): boolean - showMovePhotoPopup(e: ActionEvent): void
<ul style="list-style-type: none"> - Button: [9] - ImageView: [1] - Label: [2] - FlowPane: [1]

AdminController
<ul style="list-style-type: none"> + displayUsers(users: HashMap<String, User>): void + addUser(username: String): boolean - addPopup(e: ActionEvent): void - removeUser(e: ActionEvent): void - logout(e: ActionEvent): void
<ul style="list-style-type: none"> - Button: [5] - TextField: [1] - ListView<String>: [1]

AlbumDisplayController
<ul style="list-style-type: none"> + displayPhotos(): void + displayPhoto(cap: String, image: ImageView, filePath: String): void + addNewPhoto(file: File): boolean - searchAlbum(e: ActionEvent): void + addTag(tag: String, single: boolean): boolean - removePhoto(e: ActionEvent): void - goBack(e: ActionEvent): void - showNewPhotoPopup(e: ActionEvent): void - showNewTagPopup(e: ActionEvent): void - openPhoto(e: ActionEvent): void - logout(e: ActionEvent): void
<ul style="list-style-type: none"> - Button: [7] - FlowPane: [1] - Label: [1]



SearchController

+ setTags(): void
- search(e: ActionEvent): void
+ searchByDate(start: LocalDateTime, end: LocalDateTime, single: boolean): ArrayList<String>
+ searchByTag(tag: String, val: String, single: boolean): ArrayList<String>
+ searchByAnd(tag1: String, val1: String, tag2: String, val2: String, single: boolean): ArrayList<String>
+ searchByOr(tag1: String, val1: String, tag2: String, val2: String, single: boolean): ArrayList<String>
+ displayPhoto(cap: String, image: ImageView, filePath: String): void
+ addAlbum(albumName: String): boolean
- displayDateSearch(e: ActionEvent): void
- displayOneTagSearch(e: ActionEvent): void
- displayTwoTagSearch(e: ActionEvent): void
- displayNewAlbumPopup(e: ActionEvent): void
- setFieldEmpty(e: MouseEvent): void
- goBack(e: ActionEvent): void

- RadioButton: [5]
- Button: [3]
- TextField: [2]
- Label: [2]
- MenuButton: [2]
- ToggleGroup: [2]
- FlowPane: [1]

NewUserController

+ setParentController(adminController: AdminController): void
- addUser(e: ActionEvent): void
- closePopup(e: ActionEvent): void

- Button: [2]
- TextField: [1]

NewAlbumController

+ setParentController(albumsController: MyAlbumsController): void
+ setParentController(searchController: SearchController): void
- addAlbum(e: ActionEvent): void
- closePopup(e: ActionEvent): void

- Button: [2]
- TextField: [1]

RenameAlbumController

+ setParentController(myAlbumsController: MyAlbumsController): void
- renameAlbum(e: ActionEvent): void
- closePopup(e: ActionEvent): void

- Button: [2]
- TextField: [1]

NewTagController

```
+ setParentController(albumsController: MyAlbumsController): void
+ setParentController(albumDisplayController: AlbumDisplayController): void
- addTag(e: ActionEvent): void
- closePopup(e: ActionEvent): void
```

```
- Button: [2]
- TextField: [1]
- ToggleGroup: [1]
- RadioButton: [2]
```

AddTagController

```
+ setParentController(photoDisplayController: PhotoDisplayController): void
+ setTags(): void
- addTag(e: ActionEvent): void
- closePopup(e: ActionEvent): void
```

```
- Button: [2]
- TextField: [1]
- MenuButton: [1]
```

EditCaptionController

```
+ setParentController(photoDisplayController: PhotoDisplayController): void
- editCaption(e: ActionEvent): void
- closePopup(e: ActionEvent): void
```

CopyPhotoController

```
+ setParentController(photoDisplayController: PhotoDisplayController): void
+ setAlbums(): void
- copyPhoto(e: ActionEvent): void
- closePopup(e: ActionEvent): void
```

```
- Button: [2]
- MenuButton: [1]
```

NewPhotoController

```
+ setParentController(albumDisplayController: AlbumDisplayController): void
- chooseFile(e: ActionEvent): void
- createPicture (e: ActionEvent): void
- closePopup(e: ActionEvent): void
```

```
- Button: [3]
- TextField: [1]
```

MovePhotoController

```
+ setParentController(photoDisplayController: PhotoDisplayController): void
+ setAlbums(): void
- movePhoto(e: ActionEvent): void
- closePopup(e: ActionEvent): void
```

```
- Button: [2]
- MenuButton: [1]
```