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|----------------------------|--|--|--|--|--|--|
| Admin                      | Album  | User   | AddTagController   | CreateAlbumController  | SearchController   | RenameAlbumController  |
| <div>-dataDir:String</div> | <div>-name:String<br/>-earliest:Photo<br/>-latest:Photo</div> <div>+Album(name:String,photos:ArrayList&lt;Photo&gt;):Album<br/>-resetRange():void<br/>+Album(name:String):Album<br/>+setName(name:String):void<br/>+getName():String<br/>+getEarliest():Calendar<br/>+getLatest():Calendar<br/>-contains(photo:Photo):boolean<br/>+contains(path:String):boolean<br/>+getPhoto(path:String):Photo<br/>+getPhotos():ObservableList&lt;Photo&gt;<br/>+addPhoto(photo:Photo):boolean<br/>+removePhoto(path:String):void<br/>+equals(obj:Object):boolean<br/>+isEmpty():boolean<br/>+toString():String</div> | <div>-name:String<br/>serialVersionUID:long</div> <div>+User(name:String):User<br/>+getName():String<br/>+renameAlbum(from:String,to:String):boolean<br/>+getAlbums():ObservableList&lt;Album&gt;<br/>+contains(albumName:String):boolean<br/>+getAlbum(albumName:String):Album<br/>+addPhoto(albumName:String,path:String):boolean<br/>+removePhoto(albumName:String,path:String):void<br/>+addTag(name:String,value:String,path:String):boolean<br/>+removeTag(name:String,value:String,path:String):void<br/>+captionPhoto(caption:String,path:String):void<br/>+addAlbum(albumName:String):boolean<br/>+addAlbum(albumName:String,photos:ArrayList&lt;Photo&gt;):boolean<br/>+removeAlbum(albumName:String):void<br/>+search(begin:String,end:String):ObservableList&lt;Photo&gt;<br/>+search(byTag:String):ObservableList&lt;Photo&gt;<br/>+copyPhoto(from:String,to:String,path:String):boolean<br/>+movePhoto(from:String,to:String,path:String):boolean<br/>+writeUser():void<br/>+readUser(name:String):User<br/>+equals(obj:Object):boolean<br/>+toString():String</div> | <div>tagName:TextField<br/>tagValue:TextField<br/>-user:User<br/>-albumName:String<br/>-path:String</div> <div>+setField(username:String,albumName:String,path:String):void<br/>+switchToAlbum(e:ActionEvent):void<br/>+addTag(e:ActionEvent):void</div> | <div>albumName:TextField<br/>-user:User<br/>-photos:ArrayList&lt;Photo&gt;</div> <div>+setField(username:String,photos:List&lt;Photo&gt;):void<br/>+switchToUser(e:ActionEvent):void<br/>+addAlbum(e:ActionEvent):void</div> | <div>imageList:ListView&lt;Photo&gt;<br/>tagText:TextField<br/>startDate:TextField<br/>endDate:TextField<br/>-user:User<br/>-results:ObservableList&lt;Photo&gt;</div> <div>+setField(username:String):void<br/>+switchToCreateAlbum(e:ActionEvent):void<br/>+switchToUser(e:ActionEvent):void</div> | <div>albumName:TextField<br/>-oldName:String<br/>-user:User</div> <div>+setField(username:String,album:String):void<br/>+switchToUser(e:ActionEvent):void<br/>+renameAlbum(e:ActionEvent):void</div> |

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|--|---|--|---|---|---|
| Photo  | BaseController  | AlbumController  | CreateUserController  | EditCaptionController   | UserController  |
| <div>-path:String<br/>-cal:Calendar<br/>-tags:HashMap&lt;String,LinkedList&lt;String&gt;&gt;<br/>-caption:String</div> <div>-Photo(path:String,cal:Calendar,tags:HashMap&lt;String,LinkedList&lt;String&gt;&gt;,caption:String):Photo<br/>+Photo(path:String):Photo<br/>+getPath():String<br/>+getCal():Calendar<br/>+addTag(name:String,value:String):boolean<br/>+removeTag(name:String,value:String):void<br/>+getTags():HashMap&lt;String,LinkedList&lt;String&gt;&gt;<br/>+getTagList():ObservableList&lt;List&lt;String&gt;&gt;<br/>+setCaption(caption:String):void<br/>+getCaption():String<br/>+equals(obj:Object):boolean<br/>+compareTo(other:Photo):int<br/>+toString():String</div> | <div>BaseController</div> <div>+quit(ActionEvent e):void<br/>+getAlert(title:String,header:String,content:String):void<br/>-switchScene(e:ActionEvent,fxml:String)<br/>+switchToAdmin(e:ActionEvent):void<br/>+switchToUser(e:ActionEvent,username:String):void<br/>+switchToLogin(e:ActionEvent):void<br/>+switchToCreateUser(e:ActionEvent):void<br/>+switchToCreateAlbum(e:ActionEvent,username:String,photos:List&lt;Photo&gt;):void<br/>+switchToRenameAlbum(e:ActionEvent,username:String,albumname):void<br/>+switchToAlbum(e:ActionEvent,username:String,albumName:String,photo:Photo):void<br/>+switchToAddTag(e:ActionEvent,username:String,albumName:String,path:String):void<br/>+switchToEditCaption(e:ActionEvent,username:String,albumName:String,path:String,caption:String):void<br/>+switchToCopyPhoto(e:ActionEvent,username:String,albumName:String,path:String):void<br/>+switchToMovePhoto(e:ActionEvent,username:String,albumName:String,path:String):void<br/>+switchToSearch(e:ActionEvent,username:String):void<br/>+switchToSlideShow(e:ActionEvent,username:String,albumName:String):void</div> | <div>imageList:ListView&lt;Photo&gt;<br/>tagList:ListView&lt;List&lt;String&gt;&gt;<br/>-modelImage:SelectionModel&lt;Photo&gt;<br/>-modelTag:SelectionModel&lt;List&lt;String&gt;&gt;<br/>captionText:Text<br/>dateText:Text<br/>albumText:Text<br/>-user:User<br/>-album:Album<br/>-albumPhoto:Photo</div> <div>+setField(username:String,albumName:String,photo:Photo):void<br/>-refresh():void<br/>-imageDetail():void<br/>+switchToAddPhoto(e:ActionEvent):void<br/>+deletePhoto(e:ActionEvent):void<br/>+switchToUser(e:ActionEvent):void<br/>+switchToEditCaption(e:ActionEvent):void<br/>+switchToCopyPhoto(e:ActionEvent):void<br/>+switchToMovePhoto(e:ActionEvent):void<br/>+switchToSlideShow(e:ActionEvent):void<br/>+switchToAddTag(e:ActionEvent):void<br/>+deleteTag(e:ActionEvent):void</div> | <div>username:TextField</div> <div>+addUser(e:ActionEvent):void</div> | <div>captionText:TextField<br/>-albumName:String<br/>-path:String</div> <div>+setField(username:String,albumName:String,path:String):void<br/>+switchToAlbum(e:ActionEvent):void<br/>+editCaption(e:ActionEvent):void</div> | <div>albumList:ListView&lt;Album&gt;<br/>userText:Label<br/>-user:User<br/>-model:SelectionModel&lt;Album&gt;</div> <div>+setField(username:String):void<br/>-refresh():void<br/>+delete(e:ActionEvent):void<br/>+switchToAlbum(e:ActionEvent):void<br/>+switchToCreateAlbum(e:ActionEvent):void<br/>+switchToRenameAlbum(e:ActionEvent):void<br/>+switchToSearch(e:ActionEvent):void</div> |

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|---|--|---|---|--|---|
| Photos  | CopyPhotoController  | MovePhotoController   | LoginController   | AdminController  | SlideShowController   |
| <div>+start(primaryStage:Stage)<br/>+main(args:String[]):void</div> | <div>albumList:ListView&lt;Album&gt;<br/>-user:User<br/>-album:Album<br/>-path:String<br/>model:SelectionModel&lt;Album&gt;</div> <div>+setField(username:String,albumName:String,path:String):void<br/>+switchToAlbum(e:ActionEvent):void<br/>+copyPhotoTag(e:ActionEvent):void</div> | <div>albumList:ListView&lt;Album&gt;<br/>-user:User<br/>-album:Album<br/>-path:String<br/>model:SelectionModel&lt;Album&gt;</div> <div>+setField(username:String,albumName:String,path:String):void<br/>+switchToAlbum(e:ActionEvent):void<br/>+movePhoto(e:ActionEvent):void</div> | <div>username:TextField</div> <div>+login(e:ActionEvent):void</div> | <div>listView:ListView&lt;String&gt;<br/>-model:SelectionModel&lt;String&gt;</div> <div>+initialize():void<br/>+delete(e:ActionEvent):void</div> | <div>nextB:Button<br/>prevB:Button<br/>imageView:ImageView<br/>-album:ObservableList&lt;Photo&gt;<br/>-index:int<br/>-a:Album<br/>-u:User</div> <div>+setField(username:String,album:String):void<br/>-setButtons():void<br/>+previousImage(e:ActionEvent):void<br/>+nextImage(e:ActionEvent):void<br/>+switchToAlbum(e:ActionEvent):void</div> |