

flagship

Photo management application

Team 1

The team



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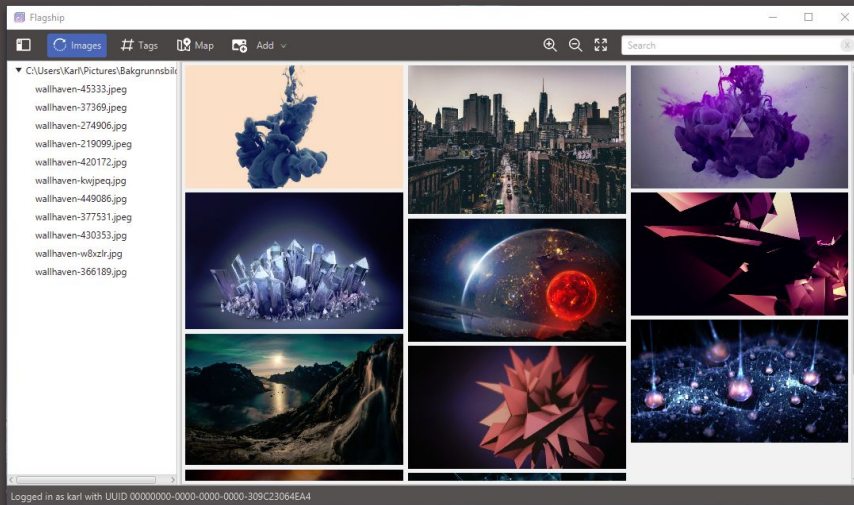
Presentation

Main parts of the presentation

1. The application
2. Demonstration
3. Project Process
4. Summary

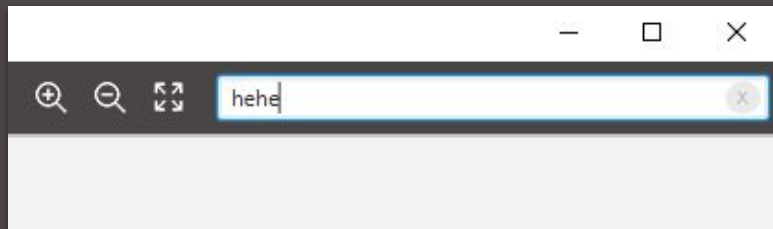
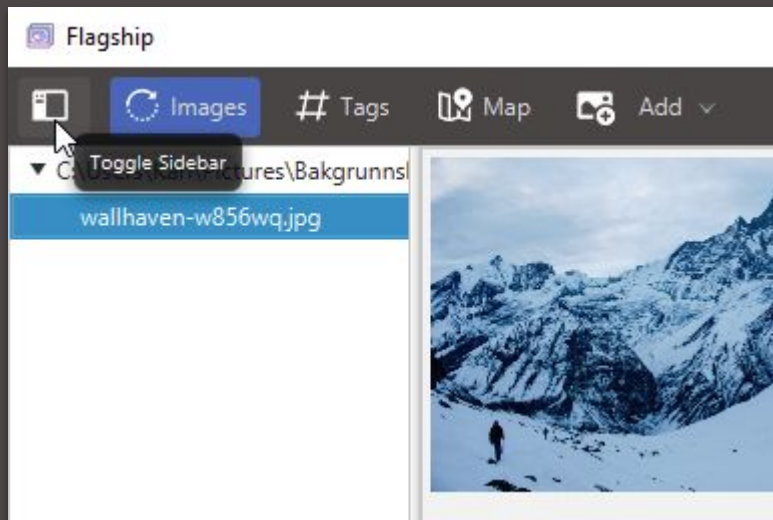
Key Features

- Add photos and read metadata
- Search function based on name, metadata and tags
- Built-in map functionality with geolocation markers
- Album creator with a PDF printer
- Data Persistence



Main User Interface

- Built with SceneBuilder
- Add images
 - Add multiple images or an entire folder
- Search field
 - Results based on name, metadata and tags
- Toggle Sidebar
 - Context Menu
 - Add Tags
 - More



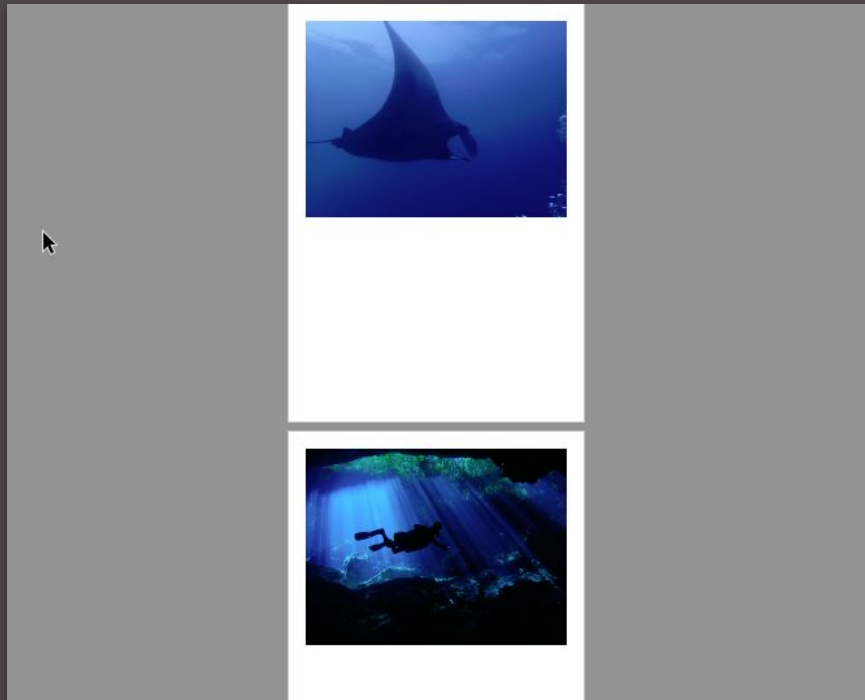
Data Persistence

Java Persistence API through the Hibernate framework

- All changes made by the user are saved
- Metadata from the images is saved
- Data is saved on a MySQL Database
- What else could we do?

Albums as PDF

- Built with iText
- Any amount or sizes
- Multiple modes
 - A4
 - Cropped
 - Dynamic



Preview of a test PDF in Adobe Reader

Metadata

- Retrieved with Drew Noakes' metadata-extractor library
- Retrieves simple metadata
 - Capture Date
 - Latitude
 - Longitude
 - Width
 - Height
 - Make
 - Model

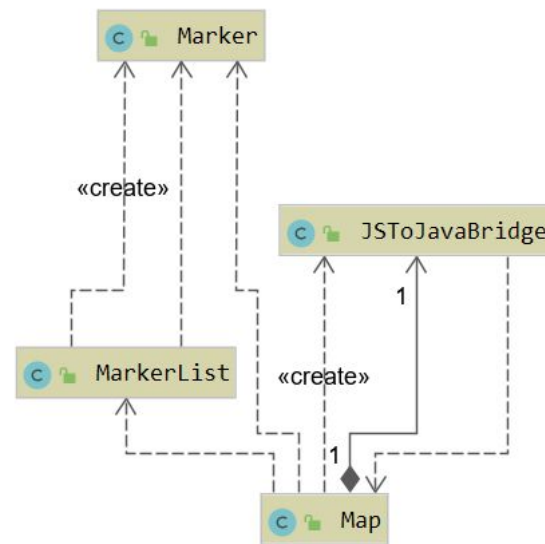
@ Embeddable

Metadata		
f	logger	Logger
f	latitude	double
f	longitude	double
f	height	int
f	width	int
f	make	String
f	model	String
f	captured	Date
m	generate(String)	Metadata
m	getLatitude()	double
m	getLongitude()	double
m	getHeight()	int
m	getWidth()	int
m	getMake()	String
m	getModel()	String
m	getCaptured()	Date
m	setLatitude(double)	void
m	setLongitude(double)	void
m	setHeight(int)	void
m	setWidth(int)	void
m	setMake(String)	void
m	setModel(String)	void
m	setCaptured(Date)	void
m	toString()	String

The map feature

- The feature
 - Multiple Layers
 - zoom/pan
 - Images
 - Collection images
- The solution
 - Webview
 - HTML and JS
- Why this particular
 - Further development

Gallery # Tags Map Add



Wiki

Lists team members, contains all deliverables, JavaDoc, pipelines, and information about our issue board.

- A result of continued work throughout the whole project process.
- Easy navigation, nothing on the wiki requires more than one click to find.






This is the Wiki for Flagship's photo management application project in the course IDATT1002 Software Engineering at NTNU.

pipeline **passed**

JavaDoc

JavaDoc is available on the project's Gitlab Pages: <http://flagship.pages.stud.idi.ntnu.no/app-product/apidocs/>

Content

 Team Documents	 Requirements	 System
 Vision Document	Domain Model	Class Diagrams
 Collaboration Agreement	Sequence Diagrams	Database Model
Trello	Universal Design	Installation Manual
	Usability Tests	Project Structure
	Use Case Diagrams	Source Code
	Wireframes	Testing
		User Manual

Demonstration

But first, known issues

Known issues

- At times when you delete a photo, you will receive a `NullPointerException`
 - Due to faulty equals method in final release.
 - Inhibits the user from importing photos, then delete any of them in the same session.
 - Root cause not established, just a quick fix.
- Map will freeze in a fixed position after invoking it twice.
 - Root cause not established.
- At times map thumbnails render as complete white, sometimes they're not present at all.
 - Root cause not established.
- Most issues appeared in final delivery.

Project Process

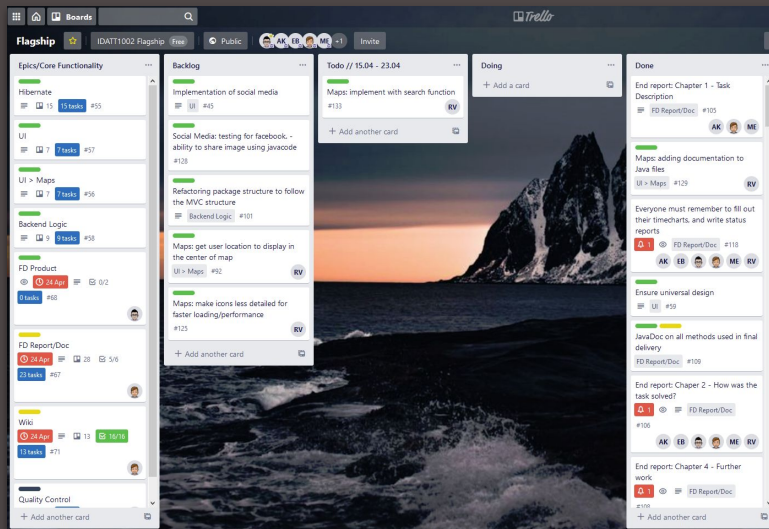
Team Roles

Roles through the different phases of the project

	Preparation	MVP	Final Delivery
Karl Labrador	Leader	>>	>>
Robin Christoffer Vold	Deputy Leader	>>	Quality Controller
Eivind Berger-Nilsen	Member	Chief MVP Officer	-
Lars-Håvard Bråten	Member	Chief Wiki Officer	Chief Doc Officer
Mats Sollid Eide	Member	>>	>>
Arvid Kirkbakk	Member	>>	>>

Team Organization

- Trello for issue handling and task delegation
- Epics in Trello
- Weekly meetings
- Discord for communication and meetings



Covid-19 and our team

- Consequences
 - No more physical meetups
- Implemented changes
 - Online communication and meetings with Discord
 - Live Collaboration in IntelliJ with Saros
- Thoughts

Further work

- Large scale
 - Cloud service?
- Small scale
 - Social Media
 - Number of images in collection marker

Summary

- Could anything have been done differently?

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Thanks for watching