

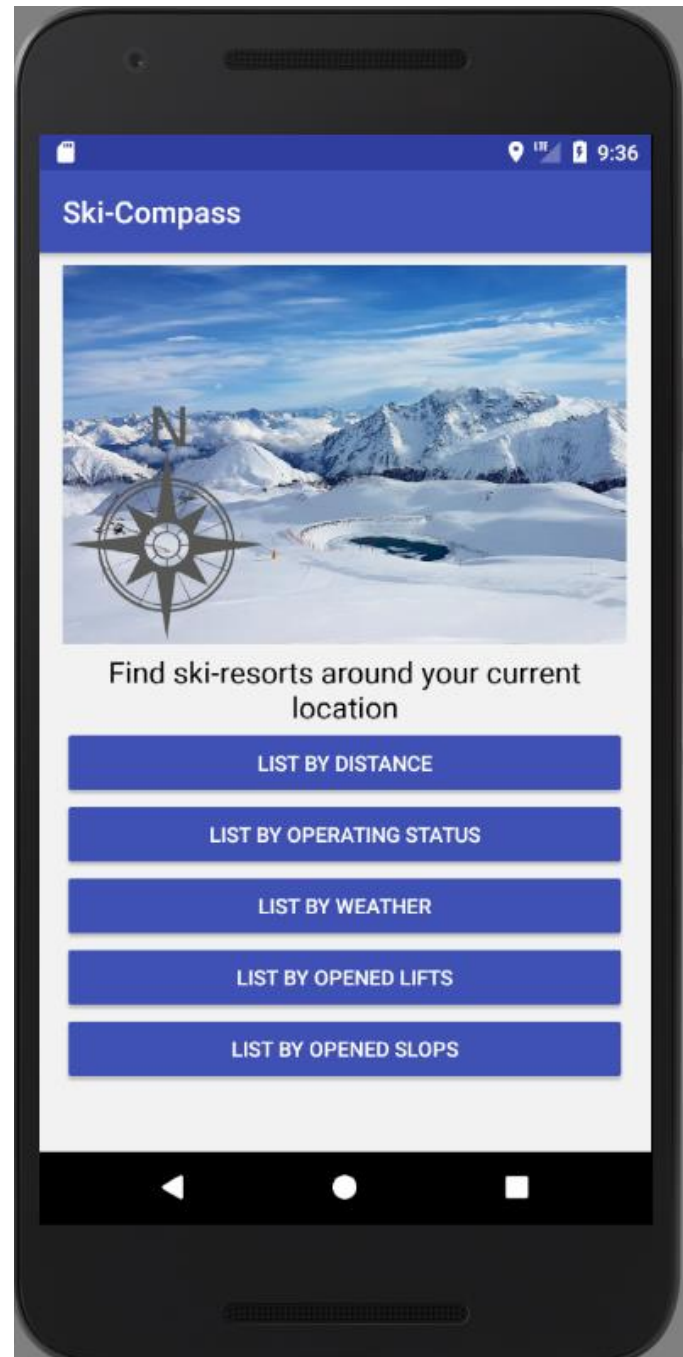


Ski-Compass

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Overview

- Introduction
- Existing Apps
- Design
- Architecture
- Implementation
- Evaluation / Testing
- Demo
- Discussion

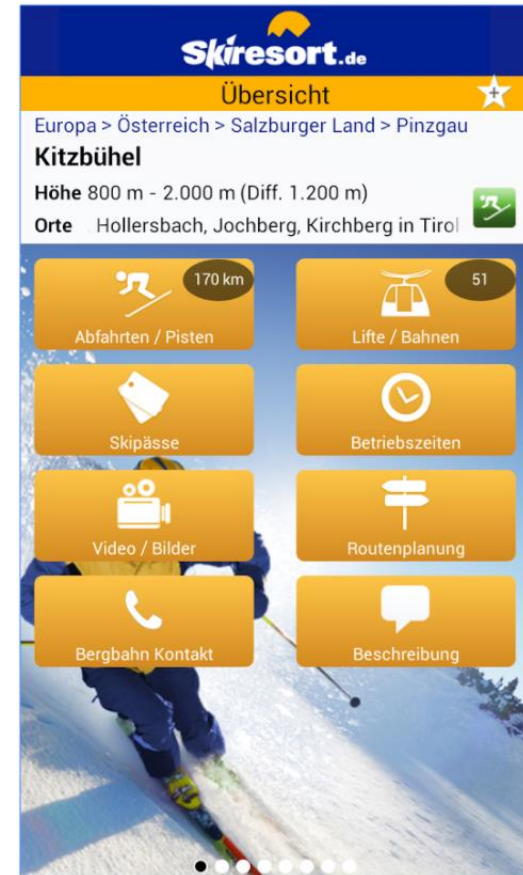


Introduction

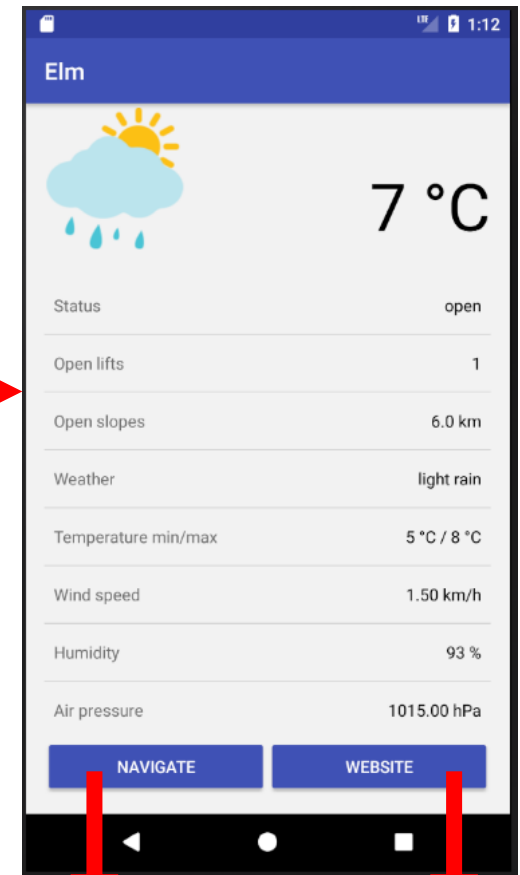
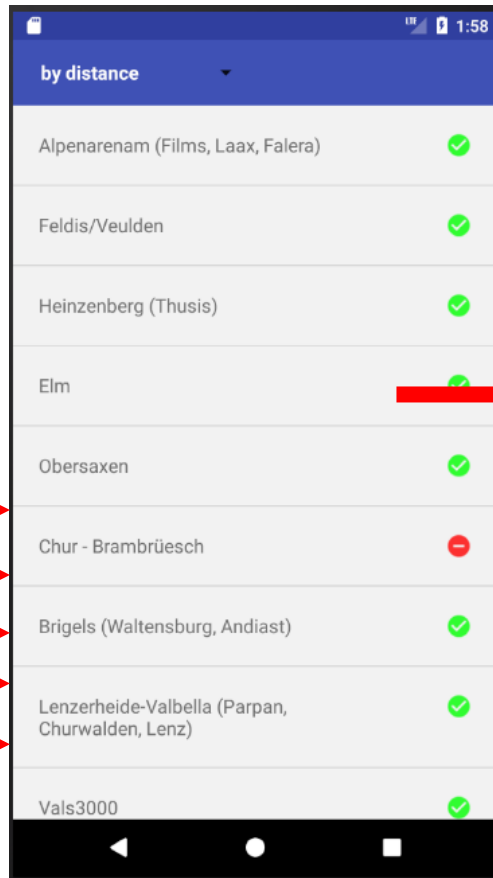
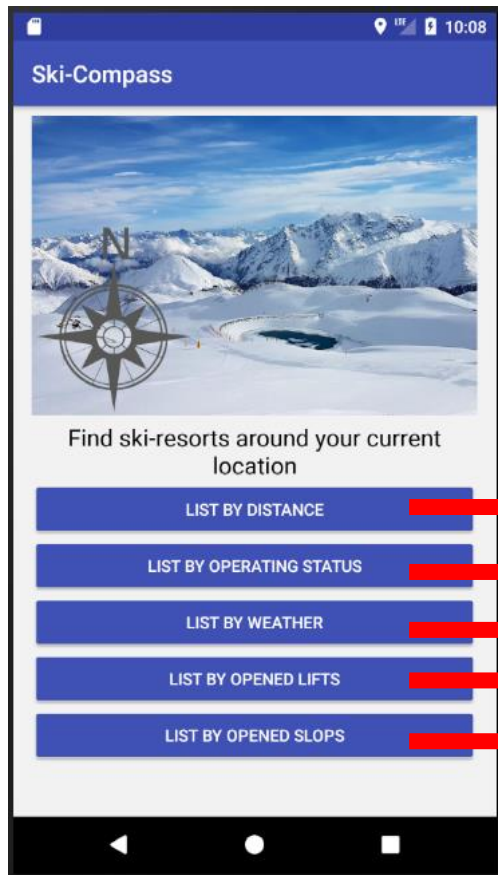
- Motivation
 - Learn to program an android app
 - Value for stakeholder
 - Value for users
- Goal statement
 - Ability to find ski resorts
 - Functions

Existing Apps

- Official App from Ski-Resorts
- iSKI (Swiss, France, Italia, ...)
- Bergfex
- Skiinfo
- Skiresort.de

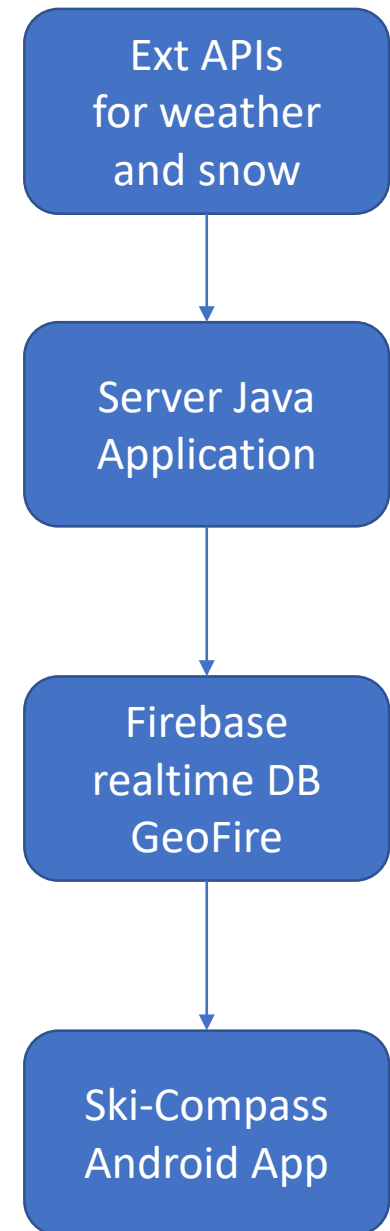


Design

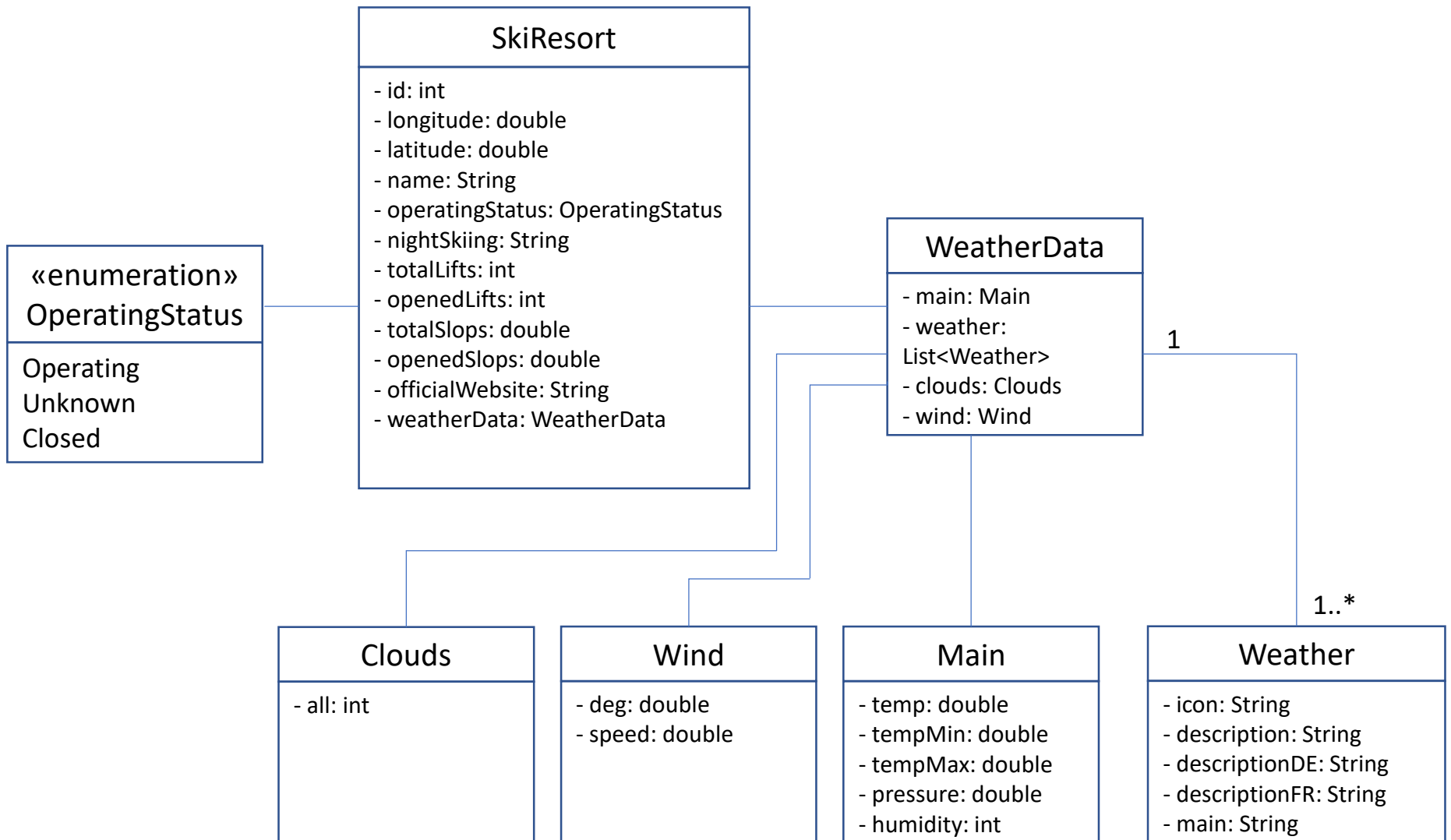


Architecture

- Firebase
 - Geofire
- External API
 - Skimap.org
 - OpenWeatherMap.org
- Server Programm
 - Java Application
 - Gson



Architecture



Implementation

- Scrum
 - (daily meeting -> every 2 - 3 Days)
- GeoFire
 - Distance Sorting with Atom bomb
- Sorting of list
- Weather icons

Evaluation / Testing

- JUnit Test
 - Sorting, Serialization
- Code Coverage
 - (30% Line, 57% Class covered)
- SonarQube
 - Some points can not be fixed
- Monkey-Test
- Usability

SonarQube Report

SonarQube Measure	rating
Bugs	0 Grade A
Vulnerabilities	0 Grade A
Code Smells	0 Grade A
Debt	0
Duplications	0.0%
Lines of Code	975
Complexity	152

Evaluation / Testing

- Monkey Test
 - Command Line Tool
 - Starting with:
 - `$ adb shell monkey -p your.package.name -v 500`
 - Sends 500 Random Events to the Application
 - Testing App for Stability

Demo

Discussion

- Time budget
- Android API's
- Firebase
- Future work
 - Ads.
 - Filter / Combination
 - More Data (Changing API)