

GiftCase

Gijs Bos, Ana Stepić, Vlatko Klabučar,
Damir Tomić, Giulio Cattivera, Aleksandra Salikiryaki

Project idea

- Gift recommendation application
 - Android application
 - Smart recommendation engine
 - Social networks integration
 - Content providers integration

Customers

- Ericsson Nikola Tesla Croatia
 - Marin Orlić

- Supervisors
 - Igor Čavrak (Croatia)
 - Juraj Feljan (Sweden)

Team

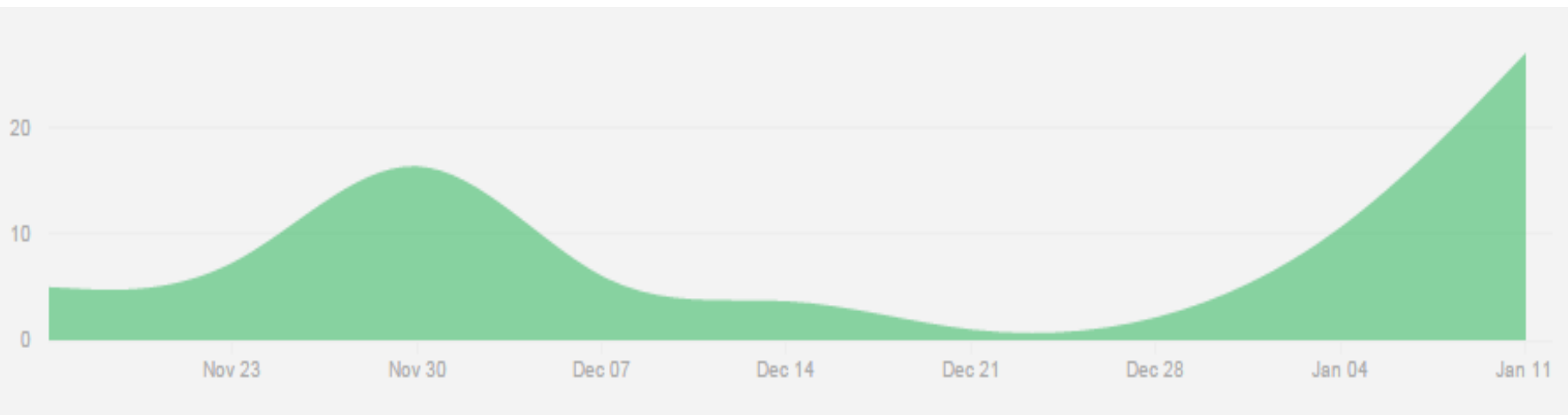
- Ana Stepić
 - Back-end developer, Designer
- Vlatko Klabučar
 - Back-end developer, Product owner
- Damir Tomić
 - Back-end developer, SCRUM Master

Team

- Aleksandra Salikiryaki
 - Front-end developer, SCRUM Master
- Gijsbrecht Henrick Bos
 - Front-end designer, Document manager
- Giulio Cattivera
 - Front-end developer, Designer

Project statistics

- GitHub statistics
 - Back-end overall commits



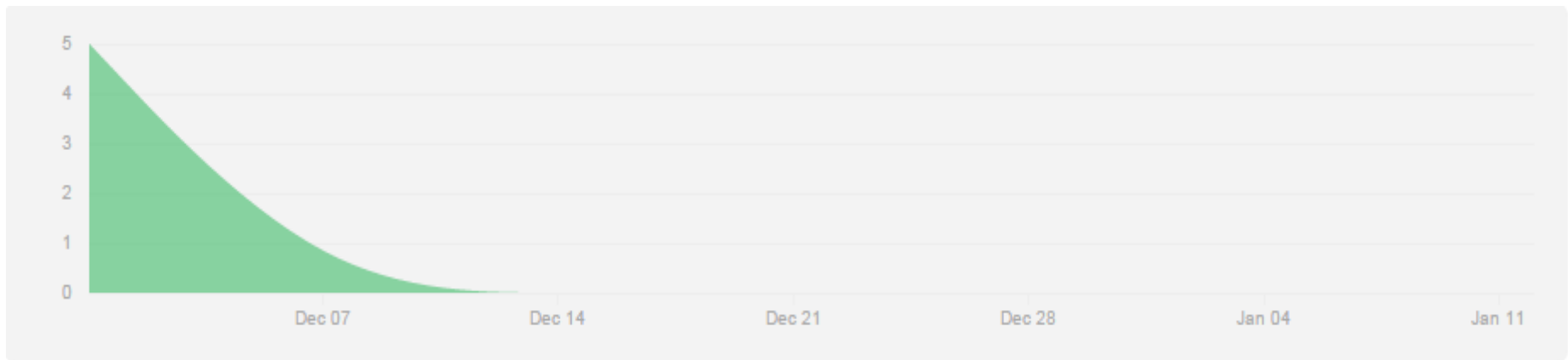
Project statistics

- GitHub statistics
 - Front-end overall commits



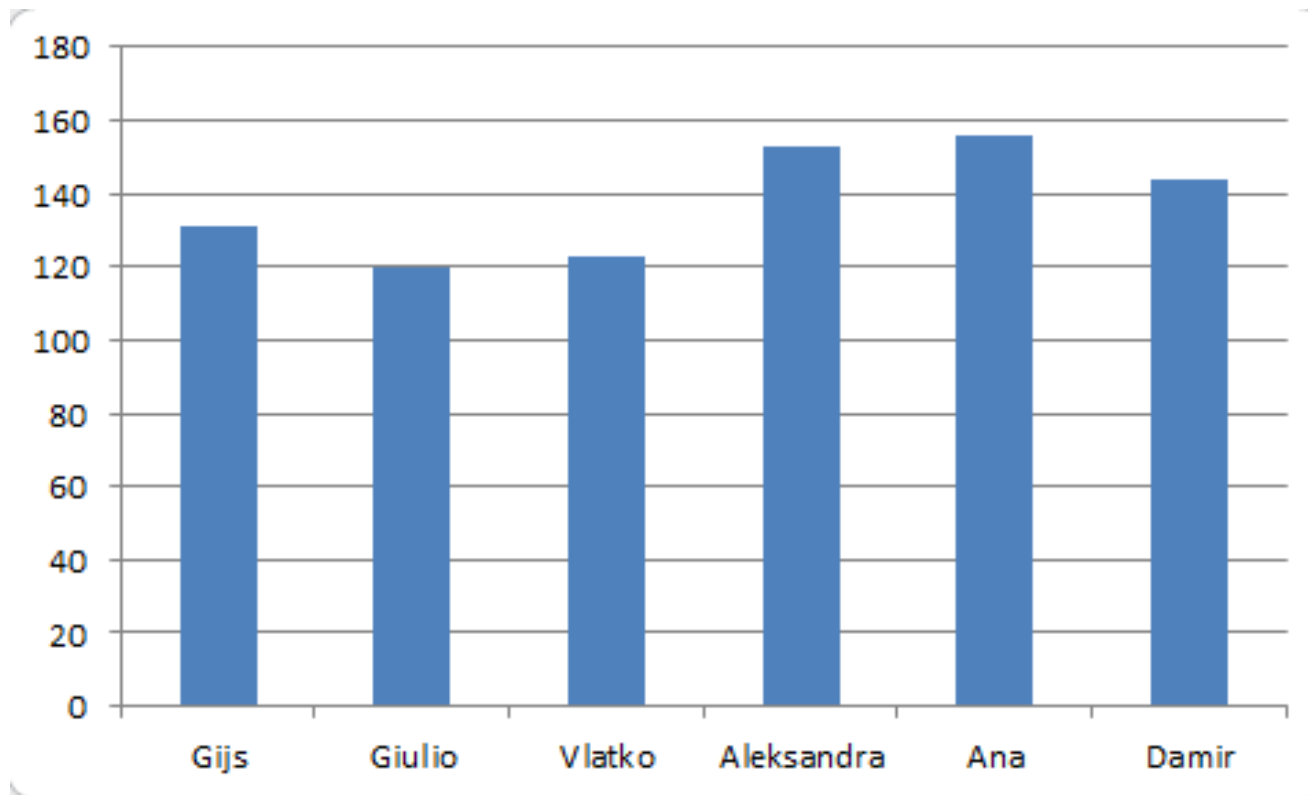
Project statistics

- GitHub statistics
 - Telecommunication operator mockup overall commits



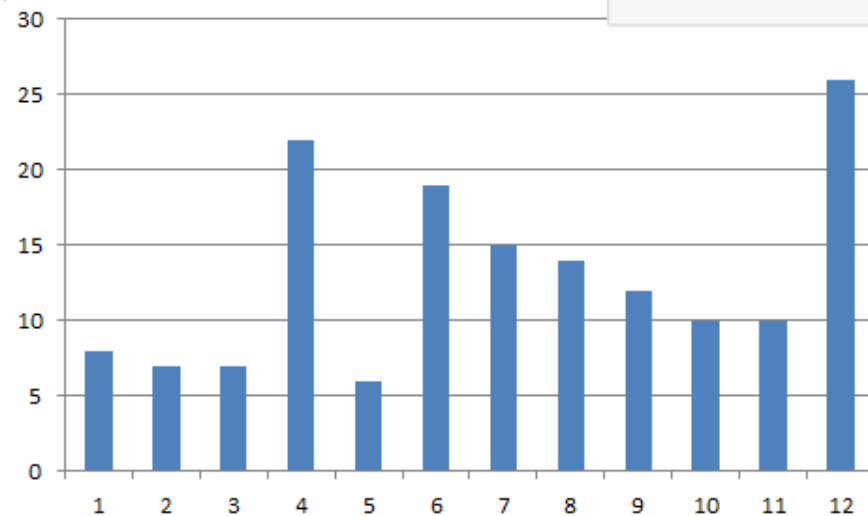
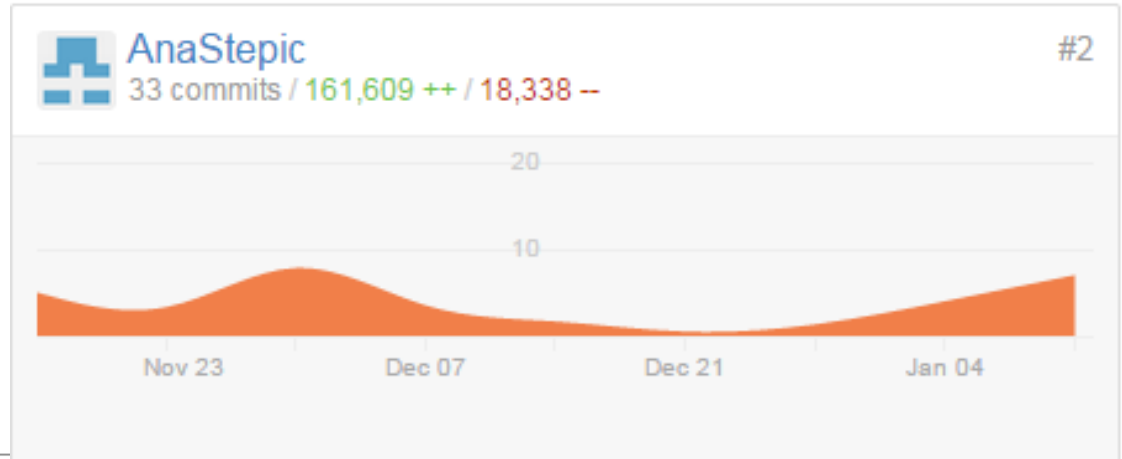
Project statistics

- Overall hours spent per person



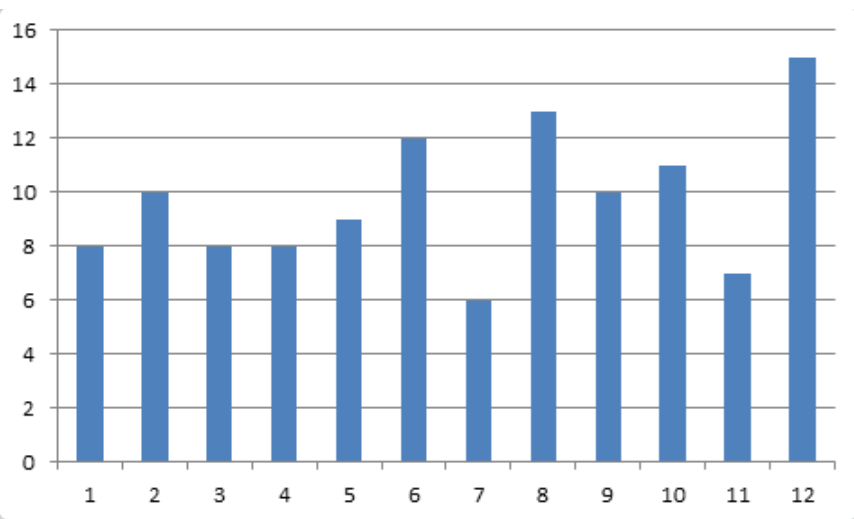
Project statistics

- Ana Stepic



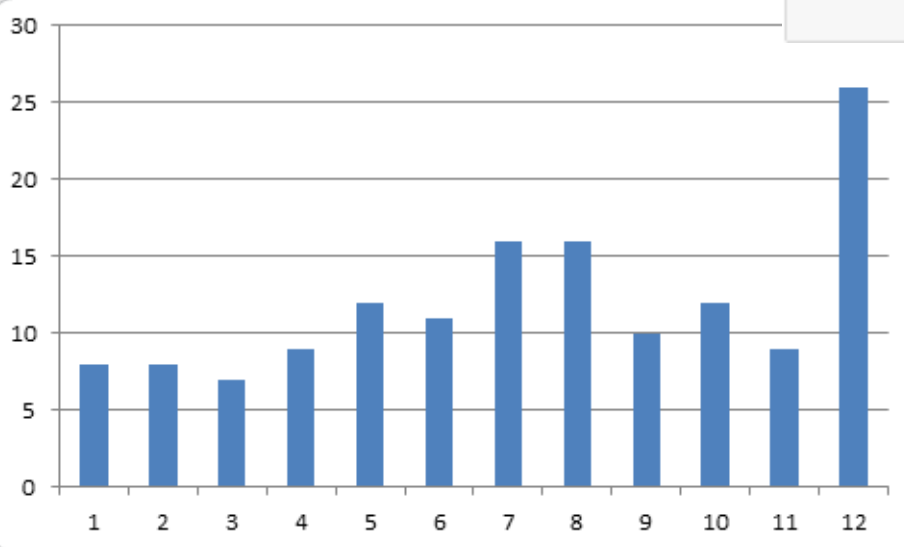
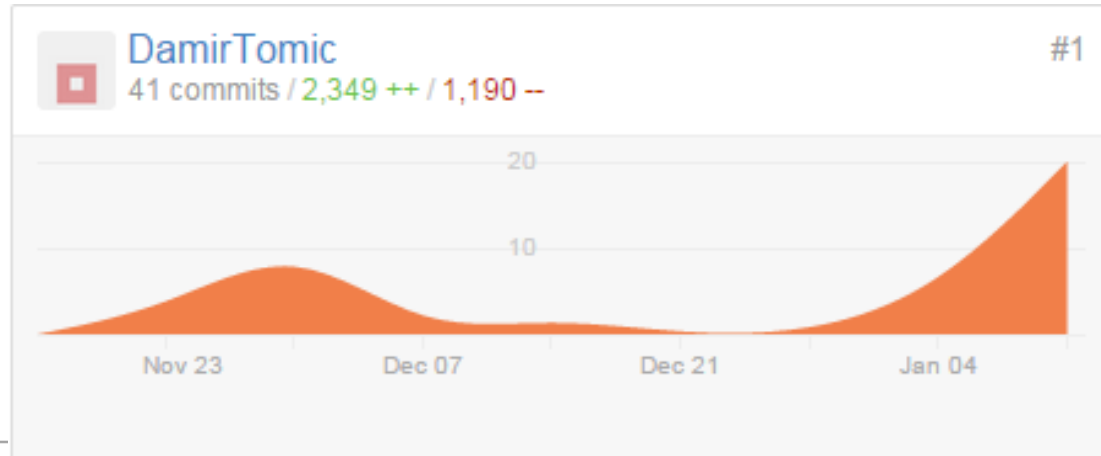
Project statistics

- Vlatko Klabučar



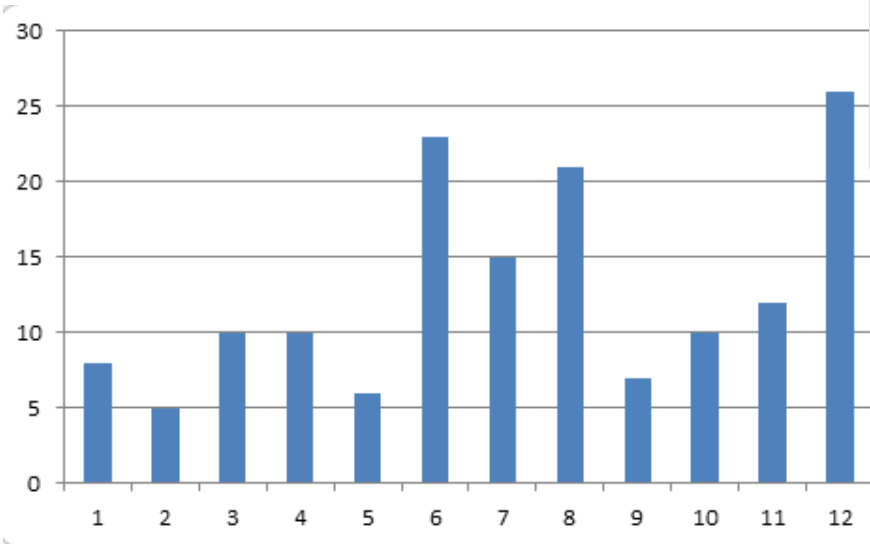
Project statistics

- Damir Tomić



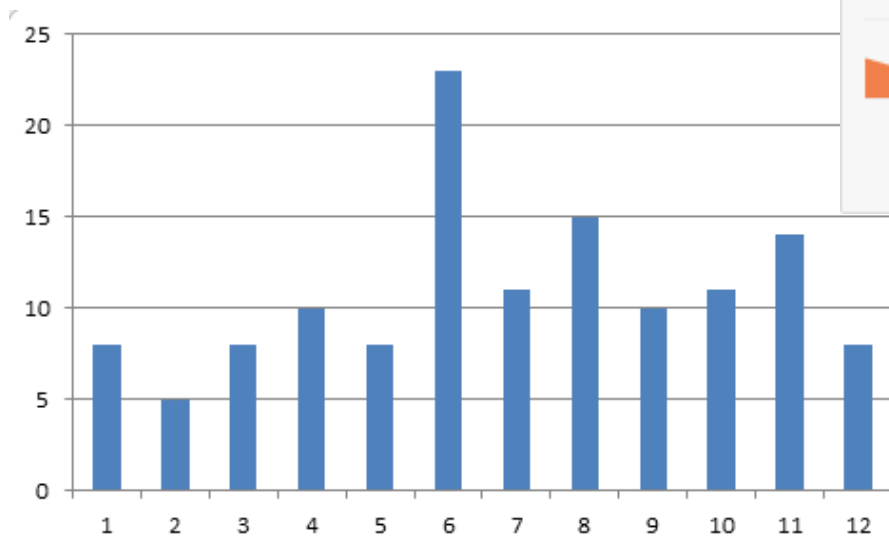
Project statistics

- Aleksandra Salikiryaki



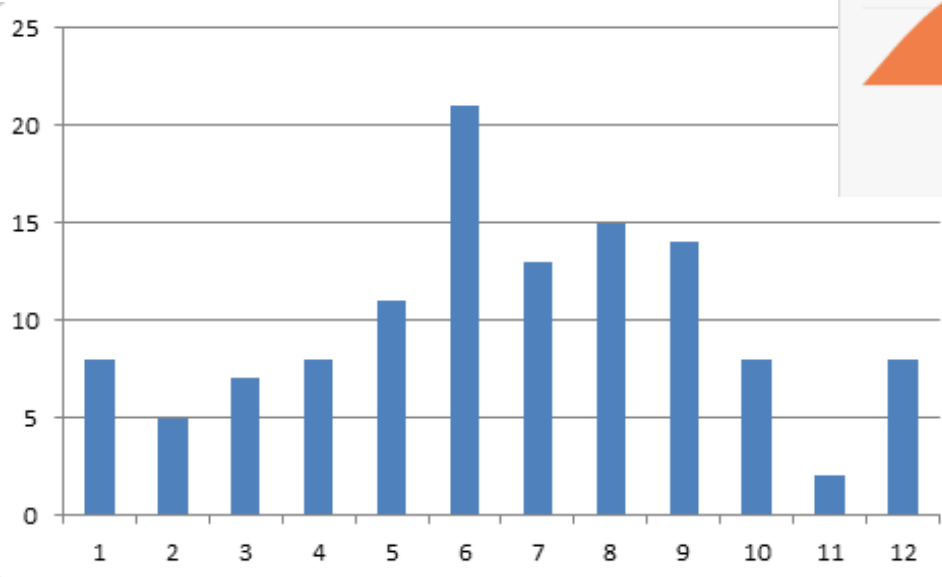
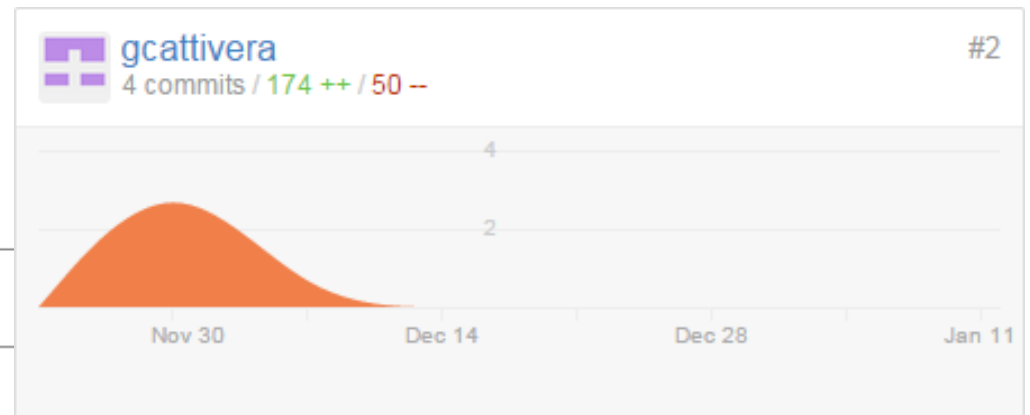
Project statistics

- Gijsbrecht Henrick Bos



Project statistics

- Giulio Cattivera



Some useful tools

- | | |
|------------------------|----------------------|
| • Communication | Contribution / usage |
| – Slack | All |
| – Skype | All |
| • Development & Design | |
| – Visual studio | Vlatko, Damir, Ana |
| – Sublime text | Giulio, Gijs, Aleks |
| – Github | All |
| – Photoshop | Gijs |
| • Documentation | |
| – Google drive | All |
| – PowerPoint Online | All |

Overall features of the system

- Gifts recommendations (CORE feature)
- Integration with user Facebook account: friends list, user profile and so on
- Proposing upcoming events for gifts
- Gathering recommend gifts from Amazon

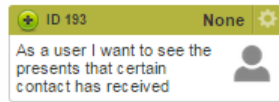
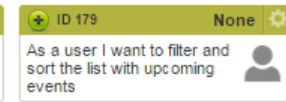
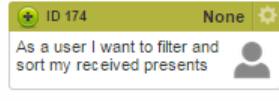
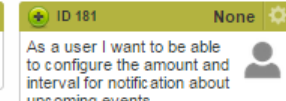
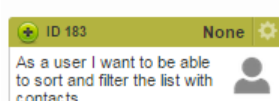
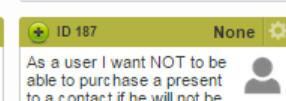
Communication with the customer

- The requirements discussed in person
- Status update via email
- Passing the documents via email
- Arranging meeting via SMS and phone calls

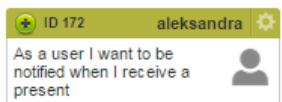
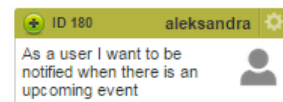
Requirements retrospection

- Project

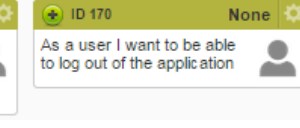
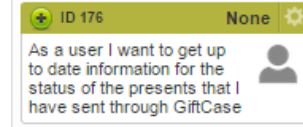
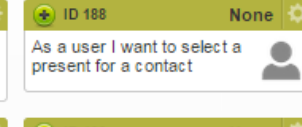
Requested (6)

In progress (2)

	
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Realized (16)

Requirements retrospection

- Back-end tasks

In progress (3)

ID 300 aleksandra	ID 306 aleksandra
Add more verified facebook users for testing purposes	Testing, bug fixing, improvements
ID 307 aleksandra	
Assist the frontend team, if necessary?	

Realized (26)

ID 229 Viperus	ID 257 vlatko	ID 282 ana.stepic	ID 281 ana.stepic
Test the app42 Gift Rating system (we won't be using it!)	Create more tests for the backend	Implement send gift functionality	Implement outbox functionality
ID 255 vlatko	ID 256 vlatko	ID 289 Viperus	ID 254 ana.stepic
TelcoMockup	Integrate C# backend with TelcoMockup	Get book, movie and music likes from facebook	Implement a working facebook login
ID 283 ana.stepic	ID 299 Viperus	ID 251 Viperus	ID 276 ana.stepic
amazon book browse	Implement recommendation engine	Integrate with Steam: Parse Steam search results	Setup integration testing environment
ID 285 ana.stepic	ID 228 None	ID 302 ana.stepic	ID 290 ana.stepic
amazon related item search	Use app42 BaaS to fetch social network data (cancelled)	Read / Write data to the remote db	iTunes integration
ID 224 None	ID 301 Viperus	ID 291 Viperus	ID 277 ana.stepic
Implement basic REST functionality	Use backend to fetch social network data	Give Live Content recommendations based on user affinities	Setup integration with Baas
ID 227 ana.stepic	ID 230 vlatko	ID 280 ana.stepic	ID 298 ana.stepic
Connect REST backend with the BaaS app42	Create a mocked-up telco REST interface using S-Case tool	Implement Inbox functionality	amazon music browse
		ID 284 ana.stepic	ID 258 None
		amazon movie browse	Request permissions from the facebook review board

Requirements retrospection

- Front-end tasks

Requested (6)

ID 267 Sort the upcoming events by date	None	ID 268 Sort the list with users by name	None
ID 199 As a user I want to be able to refresh the list with contacts	None	ID 303 Order the sent presents by their date of sending in an descending order	None
ID 304 Add the possibility to select a category from which to send a present to the target contact.	None	ID 247 Create Gift Configuration GUI	None

Realized (24)

ID 262 Create project skeleton with Backbone.js	giulio988	ID 270 Implement Facebook login	Viperus
ID 241 Create list of contacts GUI	giulio988	ID 261 Create main screen and structure GUI	aleksandra
ID 259 Create one event GUI	aleksandra	ID 243 Create Inbox Gifts GUI and information retrieval from the REST back-end API	aleksandra
ID 177 As a user I want the send and received presents to be organized in a "Gift box"	aleksandra	ID 264 Request information from the back-end API for events and link it to the GUI	aleksandra
ID 244 Create Outbox Gifts GUI and request the information from the back end REST API	aleksandra	ID 248 Create Proposed Gifts GUI	giulio988
ID 271 Setup front end development environment	None	ID 273 Setup code base repository for front end	vlatko
ID 242 Create list of events GUI	aleksandra	ID 263 Request information from the back-end API for clients and link it to the GUI	giulio988
ID 246 Create Selected events GUI	aleksandra	ID 279 Implement receiving of notification about event	aleksandra
ID 249 Create Recommended Gift GUI	aleksandra	ID 186 As a user I want to be able to select a friend to whom I want to buy a present	giulio988
ID 278 Add the possibility to log out in the application UI	Viperus	ID 240 Create Welcome GUI	gbs440
ID 245 Create contact profile GUI	giulio988	ID 269 Visually indent the non GiftCase users	giulio988
ID 262 Create project skeleton with Backbone.js	giulio988	ID 270 Implement Facebook login	Viperus

Requirements retrospection

- Documentation tasks

Requested (3)

ID 222 aleksandra	ID 221 aleksandra
User manual, technical documentation (CHECK DETAILS!!!)	Upload packaged project (app + docs)
ID 216 vlatko	
Final project report	

In progress (3)

ID 212 gbs440	ID 213 aleksandra
Project Plan update (check details)	Requirements definition minor update! (check details)
ID 223 aleksandra	ID 220 aleksandra
Weekly Report (every week)	Final Project Presentation

Realized (5)

ID 214 Viperus	ID 218 None
Design description	Milestone - Alpha prototype (presentation)
ID 219 None	ID 215 Viperus
Milestone - Beta prototype (presentation)	Acceptance test plan + Test report (?!)
ID 308 vlatko	
Acceptance test report	

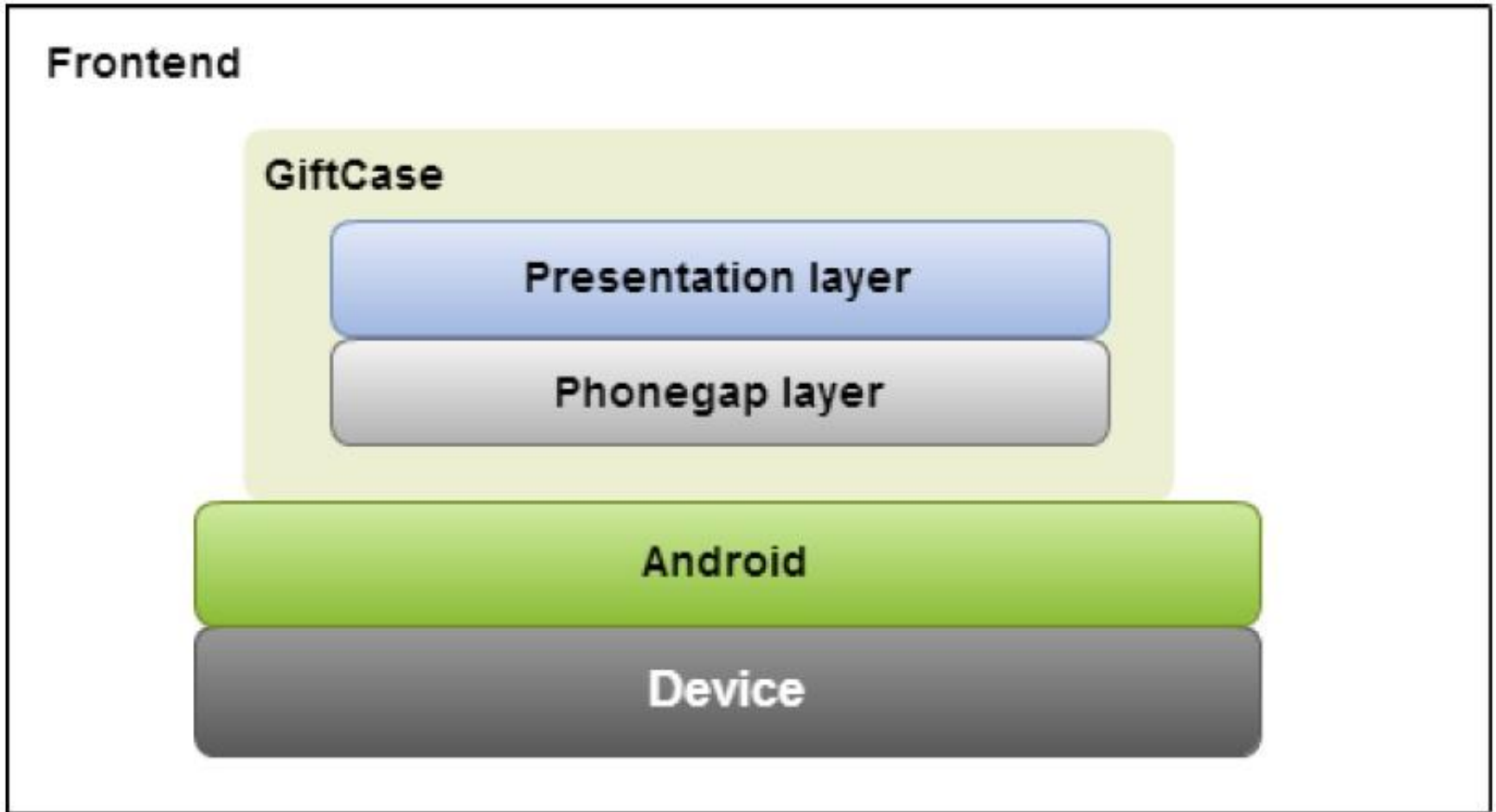
Implementation issues

- Facebook permissions
- Amazon security enforcement
- Push notifications
- Difference between ripple emulator and Android app

Back-end

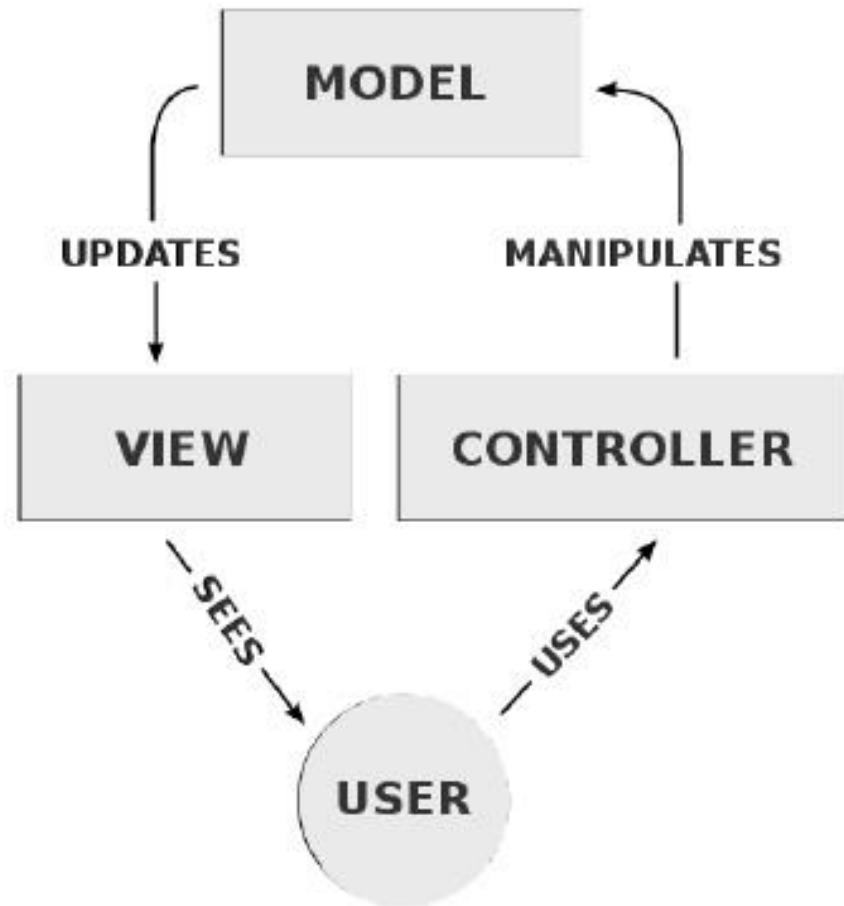
- Design
 - RESTful interface
 - NoSQL database
 - BaaS
- Technologies
 - C#
 - .NET

Front-end overall architecture



Front-end design

Technology used:
Phonégap



Verification and Validation

- Back-end
 - Integration testing
 - In memory web server hosting
 - Visual Studio Unit Testing Framework
 - Backend unit testing
 - Visual Studio Unit Testing Framework
 - Facebook features testing
 - Facebook test user ac
 - Testing through the front-end

Verification and Validation

- Front-end:
 - Manual code testing at all
 - No-formal one due to lack of time
 - Usability testing of the GUI with people

Validation and Verification

- Acceptance testing
 - Pre-developed plan, according to the requirements
 - Customer validation of the functionalities
 - Checking off the planned test cases

Process

- Project phases
 - Initial phase
 - Project planning and documentation
 - Requirements definition and documentation
 - Design development and documentation
 - Implementation phase
 - 4 sprints of 2 weeks each have passed
 - 1 more sprint is facing us

Process

- Sprints details

- I Sprint

- Mockup of the services provided by the back-end
 - Initial setup of front-end project and development environment
 - Learning details about the chosen technologies
 - Mockup telecommunication data provider

- II Sprint

- Real implementation of the back-end functionalities
 - Content provider integration
 - First views of the mobile application

Process

- Sprints details

- III Sprint

- Back-end implementation: integration with content providers and social networks
 - Implementation of recommendation engine
 - Work on front-end, integration with back-end
 - Unit testing of back-end

- IV Sprint

- Integration testing of front-end and back-end
 - Fixing bugs in back-end
 - Implementation of missing features in front-end

SCRUM Adaptation

- No fixed daily standup meetings
- + Ad-hoc meetings

- No official retrospection and planning meetings
- + Discussions and planning when making the weekly report

Flexible sprint backlog - adding / removing tasks depending on the business of the team members

Stakeholders involvement

- Client
 - Approving the work after each major release (Alpha, Beta prototypes and final version)
 - Negotiation whether changes are needed
- Team
 - Implementation
- Supervisors
 - Help with resolving different issues
 - Monitoring the development

Process

- Tools

- Kanbanize



- Google Drive



- OneDrive



- Slack



Documents

- Product related
 - Project description
 - Requirements description
 - Design description
 - Acceptance test plan
 - Acceptance test report

Documents

- Process related
 - Weekly report
 - Minutes of meeting

Communication among the team

- Weekly meetings on Skype between front-end and back-end teams
- Constant usage of the Slack board for non-live communication
- Availability of the scrum master to unplanned skype call when necessary

Communication among the team

- Everyone could be reached by Slack or Skype for specific questions within his/her competence when necessary.
- Among the front-end and back-end teams, meetings in person or by phone when necessary.

Communication experience

Some issues during the burn in phase due to organizational aspects and familiarization with Slack.

Once we have understood the proper way, no particular problems.

Division of work

- Before starting with the sprints we took together key decisions until the definition of the architecture.
- Once started with sprints:
Croatians took back-end,
Swedes took front-end

Synchronization of work

The rest api was the key:
once a back-end service was available, the
correspondent front-end feature could be
implemented.

Agreement about next available api
services? Through weekly meetings.

Synchronization of work

- Integration of back-end and front-end components throughout GitHub.
- No misunderstandings and duplicated work because:
 - Two very well distinct sub-systems
 - Croatian members in daily contact
 - Swedish members in daily contact

DEMO

Now software demonstration!

Thank you for your attention!

