

NOTICE!

- These materials are prepared only for the students enrolled in the course Distributed Software Development (DSD) at the Department of Computer Science and Engineering, University of Mälardalen, Västerås, Sweden and at the Faculty of Electrical Engineering and Computing, University of Zagreb, Croatia (year 2012/2013).
- For all other purposes, authors' written permission is needed!
- The purpose of these materials is to help students in better understanding of lectures in DSD and not their replacement!

Distributed Software Development



2012-12-17



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MÄLARDALENS HÖGSKOLA

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HoopStats Beta prototype



2012-12-17



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Agenda

- Project current state
- Results
- Process related info
- Project management tools
- Changes
- Integration
- Documentation update
- SCORE related info
- Prototype demo

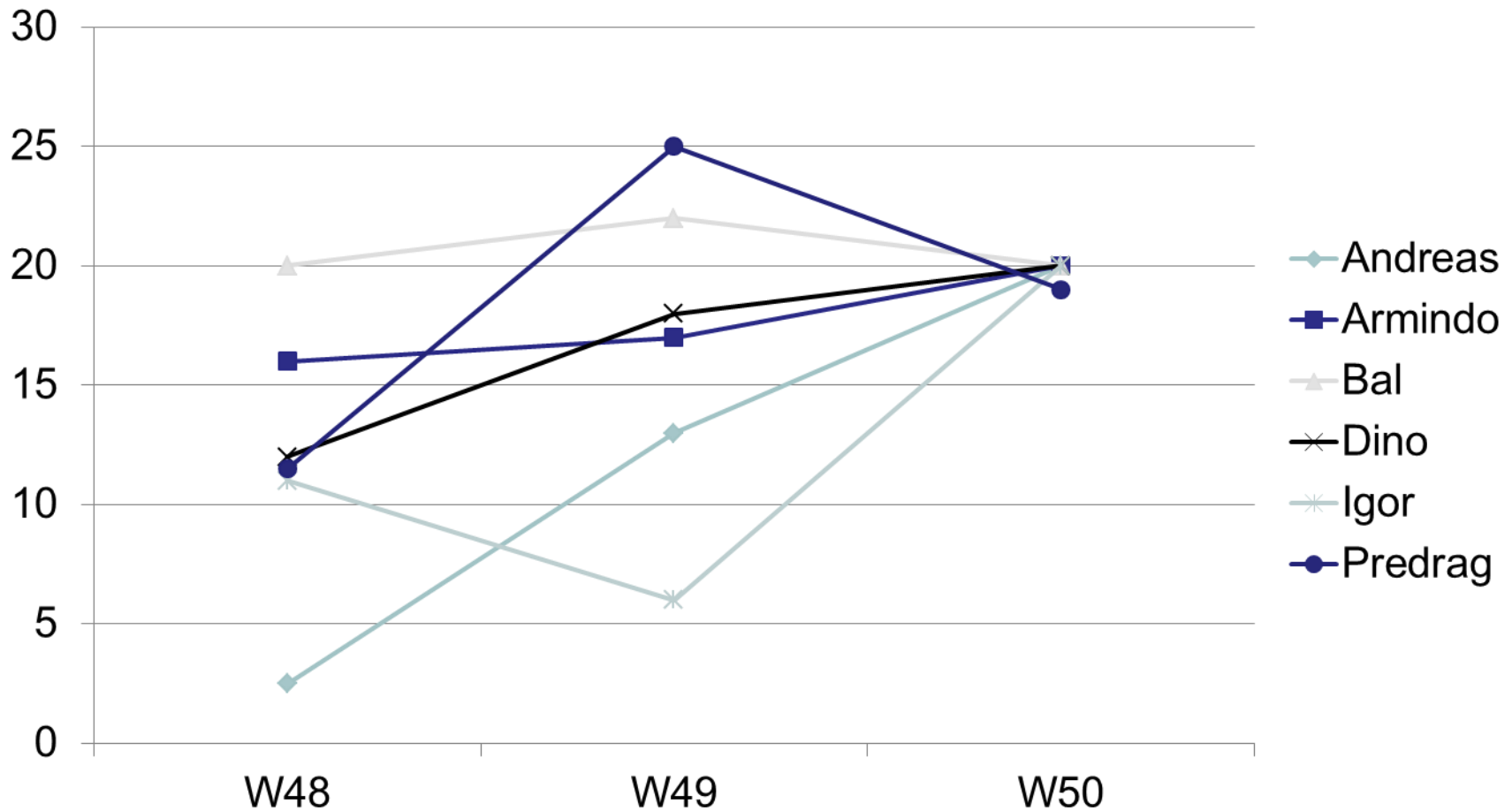
Project state



Working hours

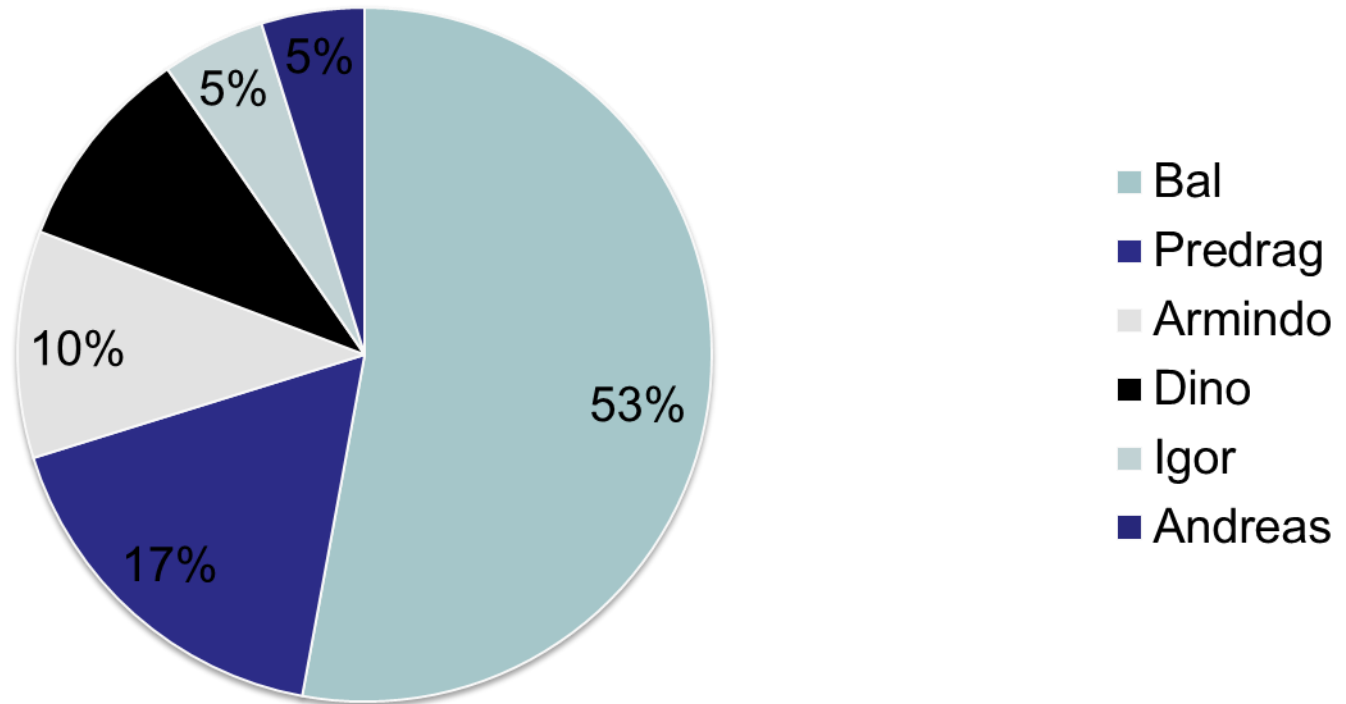
Member	W48	W49	W50	Total
Andreas	2.5	13	20	35.5
Armindo	16	17	19	52
Bal	20	22	12	54
Dino	12	18	20	50
Igor	11	6	8	25
Predrag	11.5	25	20	56.5
Team total				273

Working hours – graphical representation



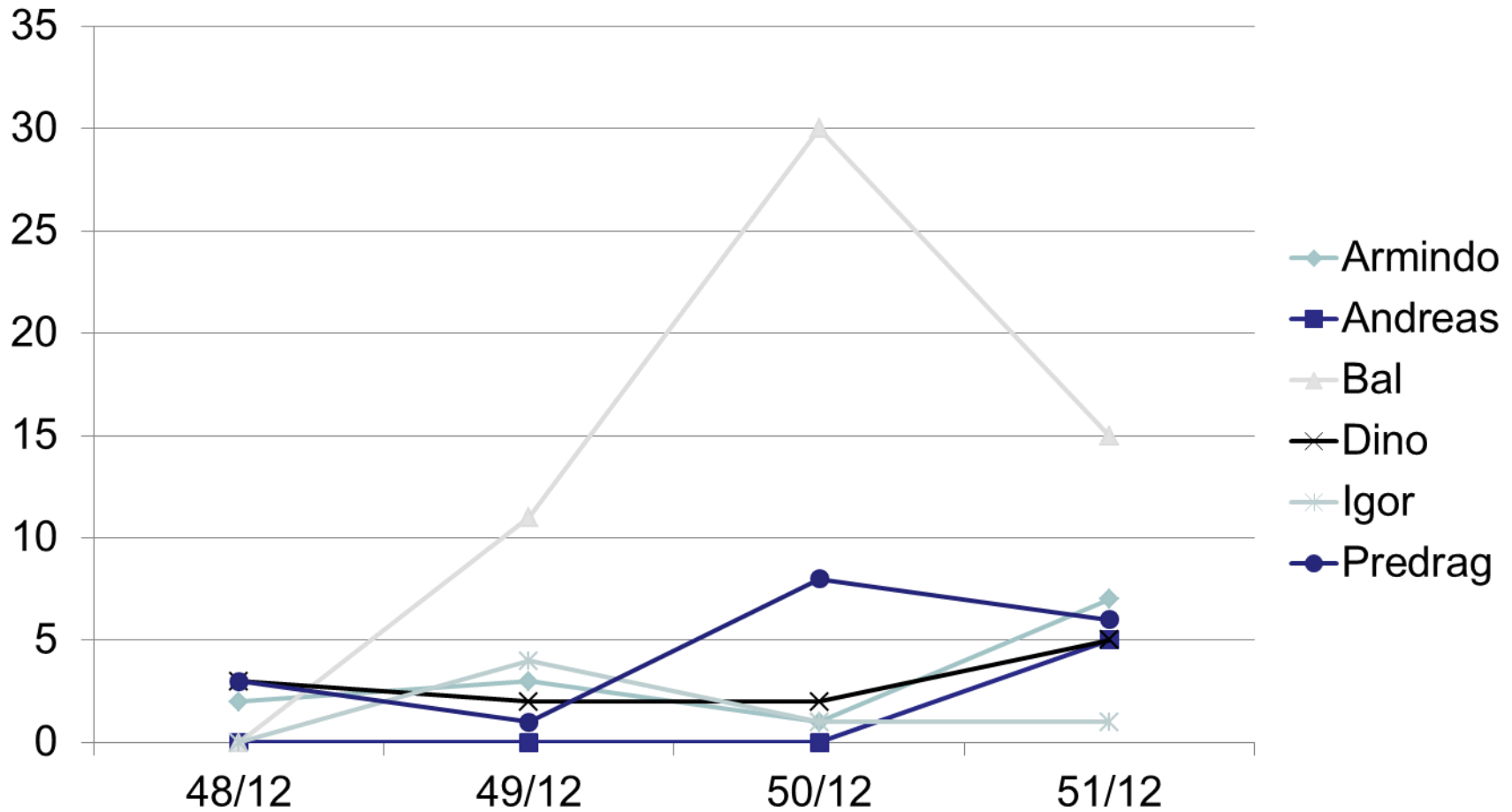
SVN statistics

No. commits per autor



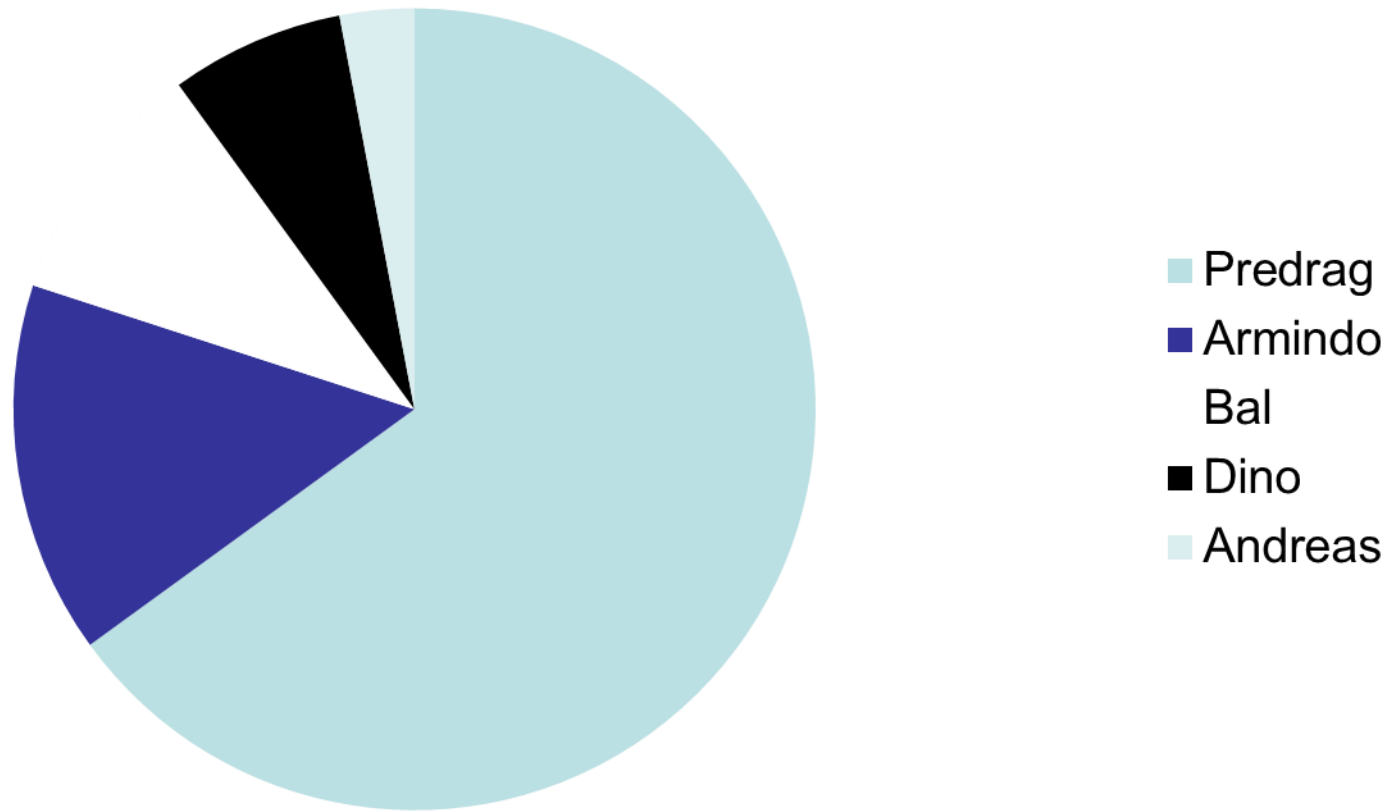
SVN statistics

Commits per week



SVN statistics

Percent of authorship



Results

Part	Feature	Status
Back – end (server application)	Database schema	Done
	Data migration	Done
	Data providers	Done (constantly changing)
	Services	Done (constantly changing)
Front – end (UI) Web application	Basic search	Done
	Detail view	Done (Prone to changes)
	Graphical representation	Done
	Advanced search	Done

Results

Part	Feature	Status
Front – end (UI) Android application	Basic search	Done
	Detail view	Done for players and teams
	Graphical representation	Done, prone to changes
	Advanced search	To be delivered in the final version

Process related info

- Adoptive iterative approach.
- First iteration – Alpha prototype:
 - Back end
 - Web application basic features
- Second iteration – Beta prototype:
 - Web application advanced features
 - Android client
- Third iteration – Final product

Project management tools

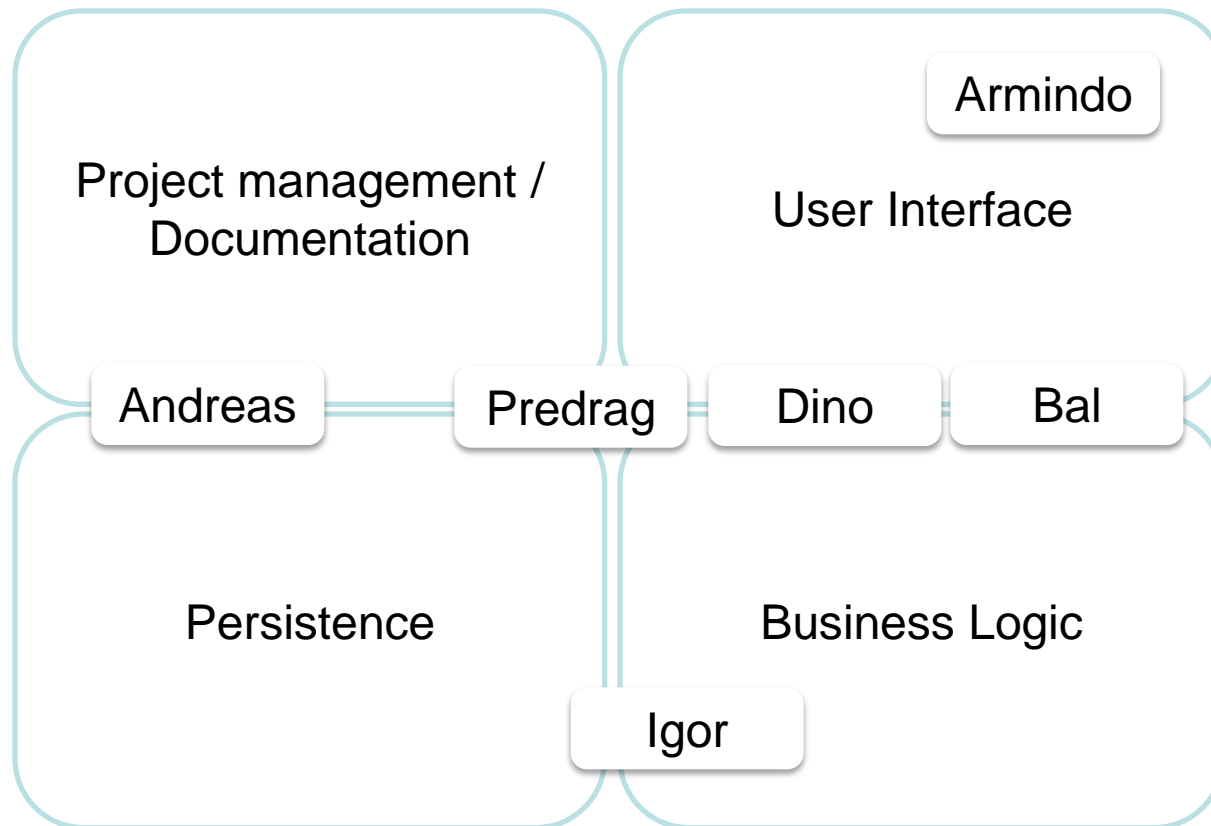
- Standard tools used in the course:
 - Week reports – for summarizing the previous week results and to plan new ones.
 - MoM – official documentation for tasks delivery on the meeting.
 - Email and other types of asynchronous communication and task delivery among team members
 - Google groups for documentation in progress and bug issue tracking.

How our project matured

- The product was not changing much, but the team **CHANGED A LOT!**
- Positive changes lead to better overall team performance.
- Interesting question?
 - Was the initial role division wrong?
 - If so, why? Everyone picked their role in the beginning.
 - Possible explanation – Everyone wants to develop, no one much interested into documentation or management

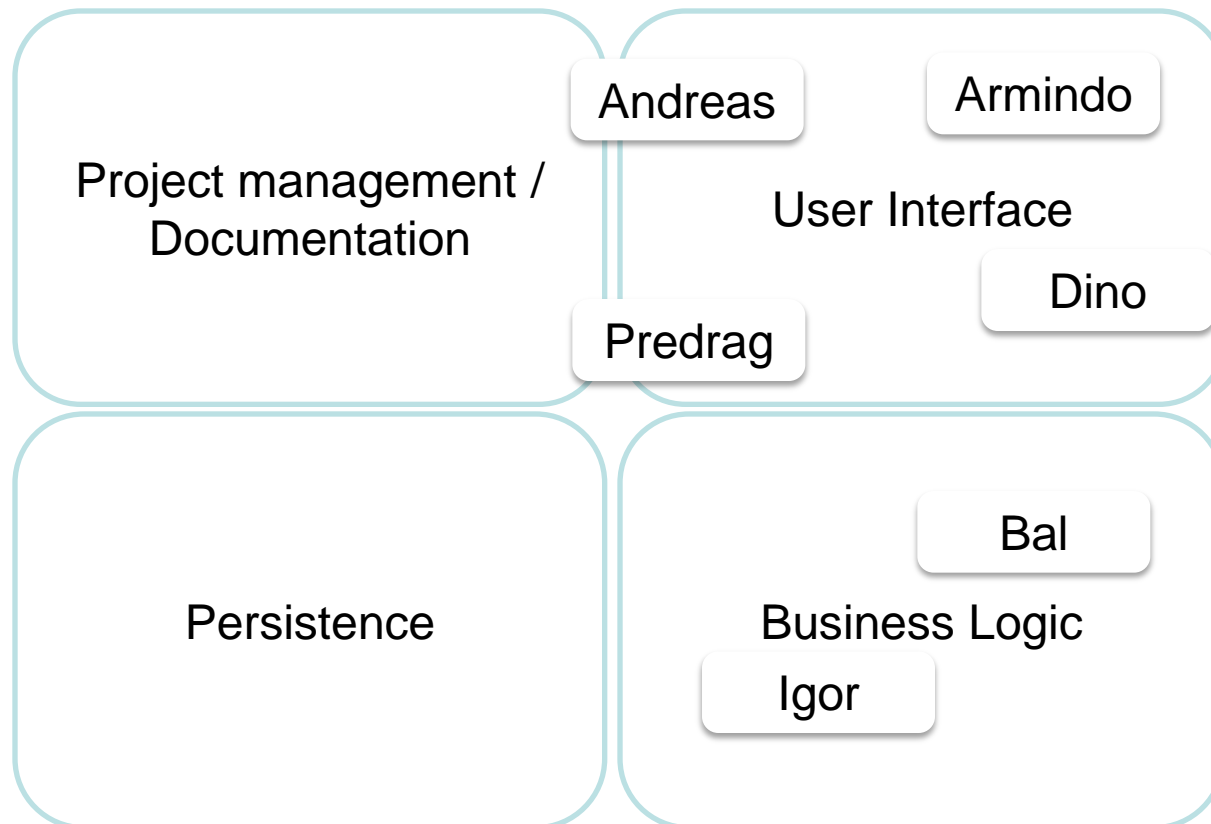
How we changed our team

a. Initial role mapping



How we changed our team

b. Current role mapping



Integration

- Expected problems for Android
- Integration almost seamless
 - Good back-end service providers
 - Only mapping from JSON to Java objects had to be done to integrate

Project documentation

- Requirements have been reviewed
- Traceability matrix has been made
- Traceability matrix acts as a map
 - Each requirement traced to tests and classes
 - Each test and class traced to a requirement

Traceability matrix

Name of the requirement	Paragraph	Location	Use case actor	Class: Models (all)	Class: BaseController	Class: CoachController	Class: HomeController	Class: PlayerController	Class: TeamController	Class: AdvancedSearchMapper	Class: CoachMapper	Class: PlayerMapper	Class: TeamMapper	Test Class: CoachControllerTest	Test Class: CoachDataProviderTest	Test Class: CoachMapperTest	Test Class: HomeControllerTest	Test Class: PlayerControllerTest	Test Class: PlayerDataProviderTest	Test Class: PlayerMapperTest	Test Class: TeamControllerTest	Test Class: TeamDataProviderTest	Test Class: TeamMapperTest
FQ 1: Deliver templates to create queries	2.2.1	Page 7, row 5	1	1	0	1	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0
FQ 1.1: Player table template	2.2.1	Page 7, row 5	1	1	1	0	0	1	0	1	0	1	0	0	0	0	0	1	1	1	0	0	0
FQ 1.2: Team table template	2.2.1	Page 7, row 5	1	1	0	0	0	0	1	1	0	0	1	0	0	0	0	0	0	0	1	1	1
FQ 1.3: Coach table template	2.2.1	Page 7, row 5	1	1	1	0	0	1	0	1	1	0	0	1	1	1	0	0	0	0	0	0	0
FQ 1.4: Templates for properties	2.2.1	Page 7, row 5	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
FQ 1.5: Templates for conditions	2.2.1	Page 7, row 5	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
FQ 2: Workflow to structure the template selection of the user	2.2.1	Page 7, row 5	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
FQ 2.2: Selection of property template	2.2.1	Page 7, row 5	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
FQ 2.3: Selection of condition template	2.2.1	Page 7, row 5	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
FQ 2.4: Selection for different graphical output	2.2.1	Page 7, row 5	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
FQ 3: Constraints to cut out unreasonable queries	2.2.1	Page 7, row 5	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
FQ 3.1: Constraint to cut out unreasonable properties	2.2.1	Page 7, row 5	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
FQ 3.2: Constraint to cut out unreasonable comparisons	2.2.1	Page 7, row 5	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
VR 1: Provide static graphical data output	2.2.2	Page 7, row 11	1	1	0	1	0	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1
VR 1.1: Provide table output	2.2.2	Page 7, row 11	1	1	0	1	0	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1
VR 1.2: Provide pie chart output	2.2.2	Page 7, row 11	1	1	0	1	0	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1
VR 1.3: Provide graph output	2.2.2	Page 7, row 11	1	1	0	1	0	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1
VR 2: Provide dynamic graphical data output	2.2.2	Page 7, row 11	1	1	0	1	0	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1
VR 2.1: Provide table output	2.2.2	Page 7, row 11	1	1	0	1	0	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1
VR 2.2: Provide pie chart output	2.2.2	Page 7, row 11	1	1	0	1	0	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1
VR 2.3: Provide graph output	2.2.2	Page 7, row 11	1	1	0	1	0	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1
VR 3: Provide webpage to display graphical output	2.2.2	Page 7, row 11	1	1	0	1	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0

SCORE

- Open data
- Basketball statistics:
 - Easy to use
 - See the data instead of reading it
 - Free to use

Beta prototype demo

[HoopStats Web application](#)

Thank you for your attention!

