

Freie Universität Berlin

Development process

Development process

Development process

Code generation

Quality assurance

Development process

Risk Management

Intended

Incremental

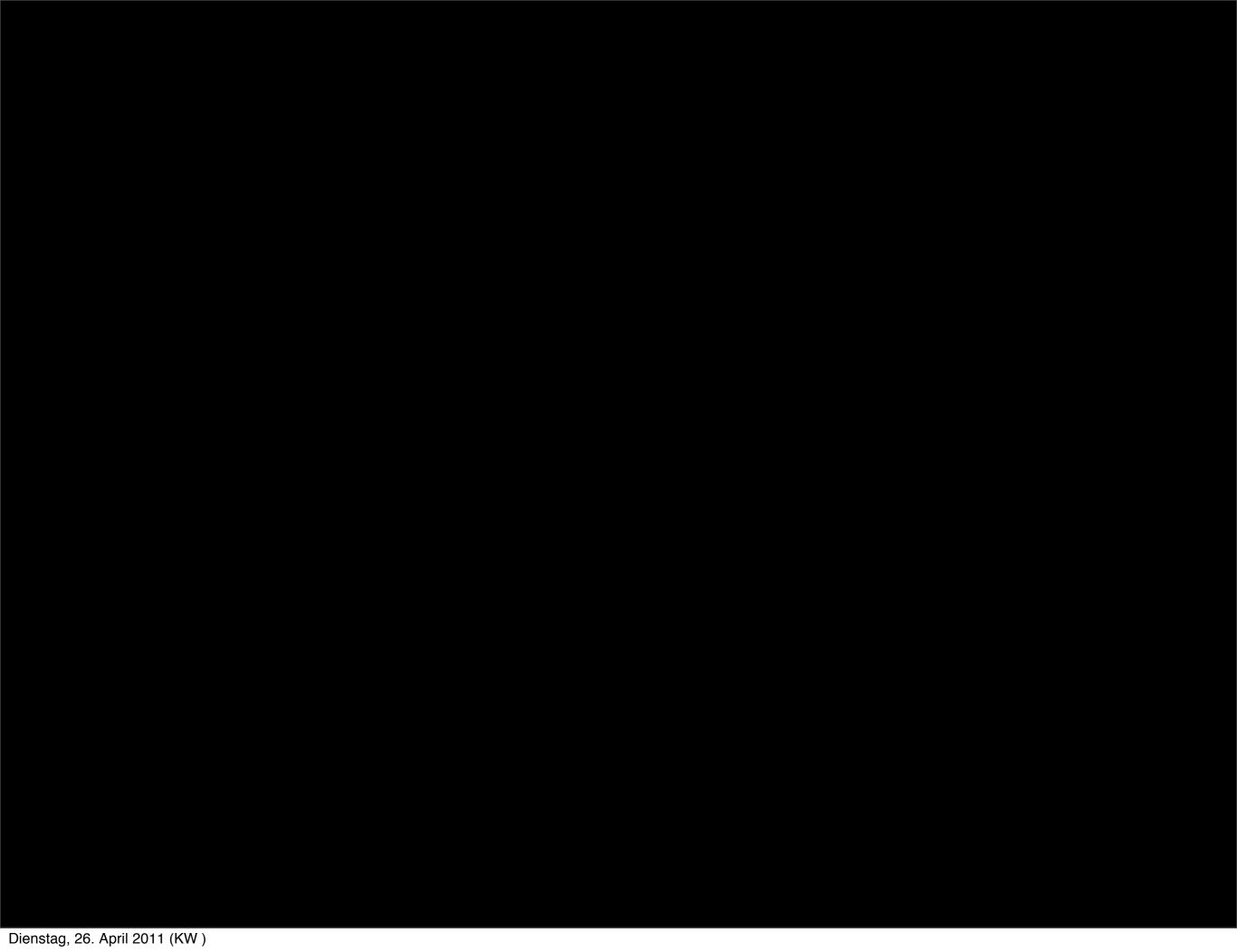
Iterative

Iterative Development

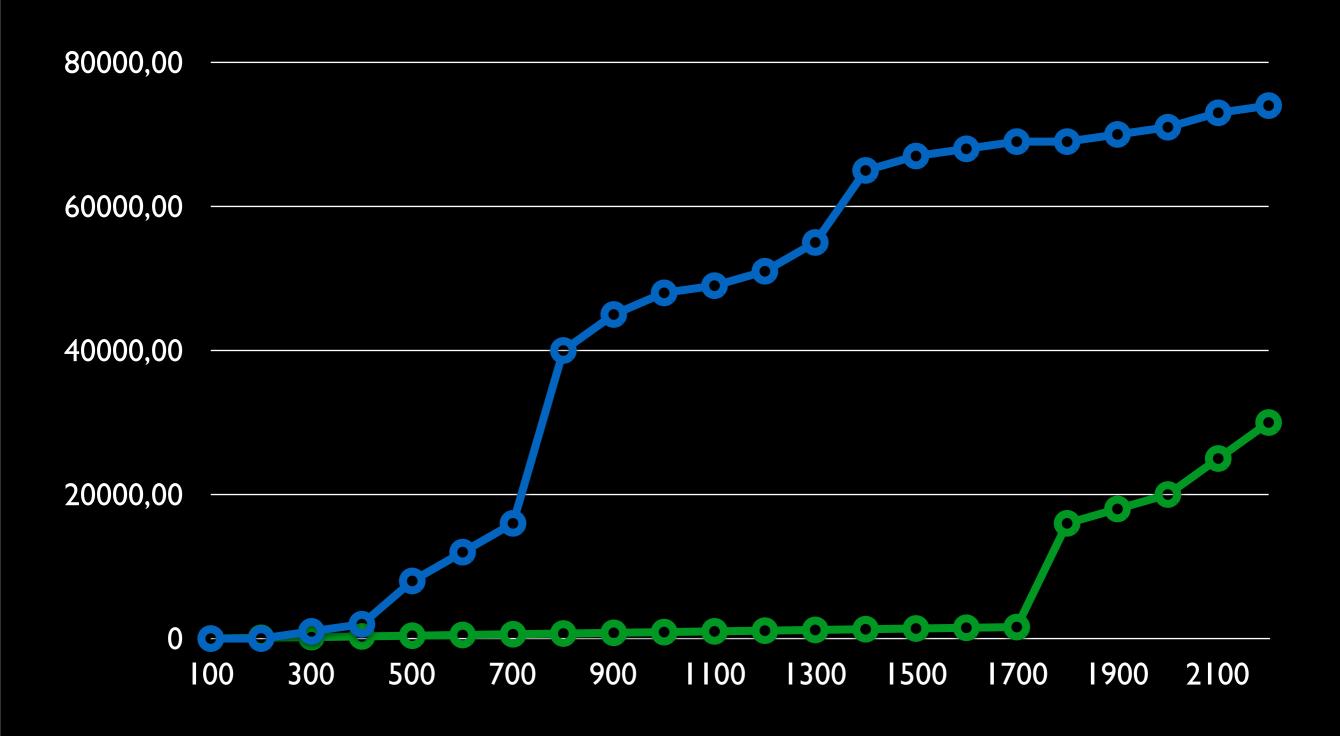
Regular Meetings Actual

Regular meetings

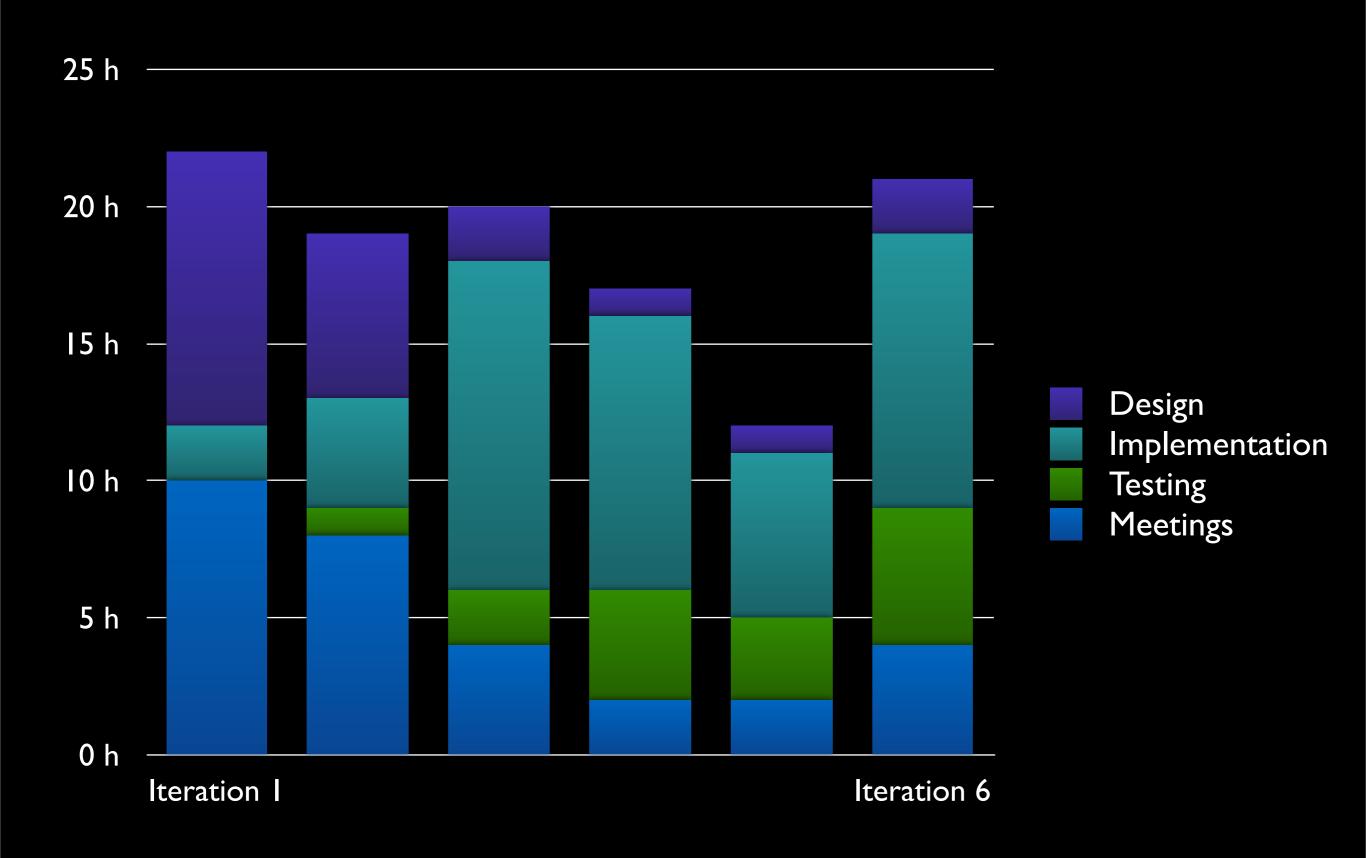
Iterative Development



Lines of Code per Revision



Hours devoted to the project / per person, per week



Relational model

first_name	last_name	login

Object oriented model

Person

- + firstName
- + lastName
- + login
- + delete() : boolean
- + pushChanges() : boolean
- + insert(): boolean

Relational model

first_name	last_name	login

Object oriented model

Person

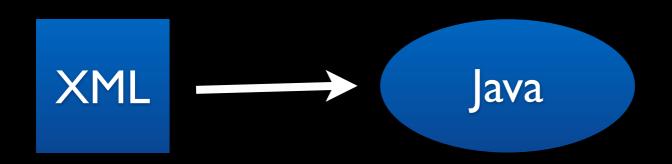
- + firstName
- + lastName
- + login
- + delete() : boolean
- + pushChanges() : boolean
- + insert(): boolean

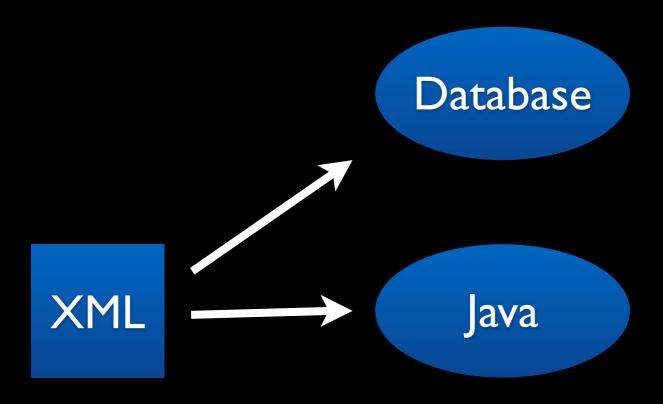


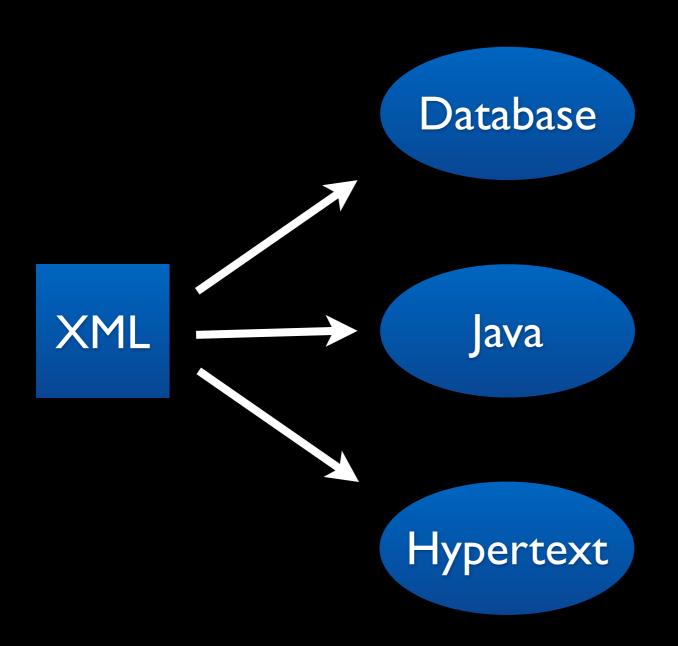
Relational model

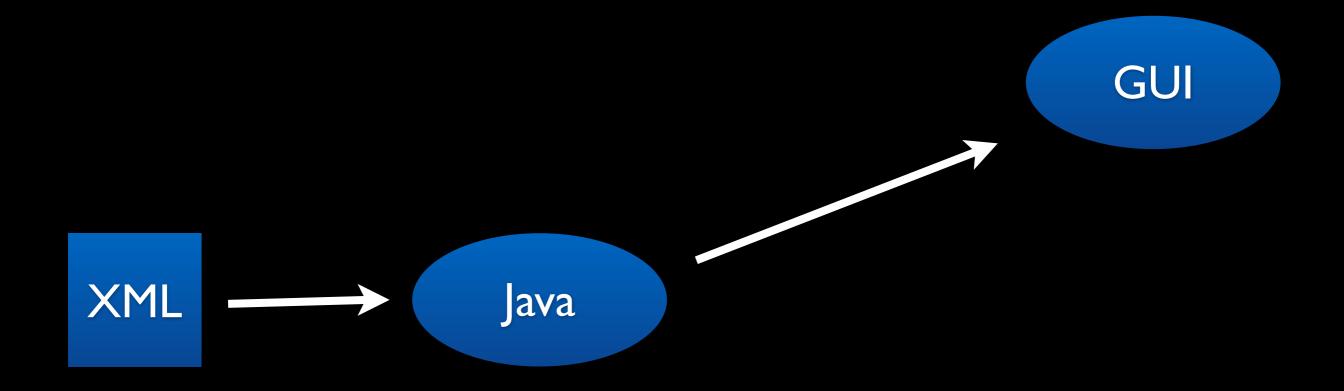
first_name	last_name	login

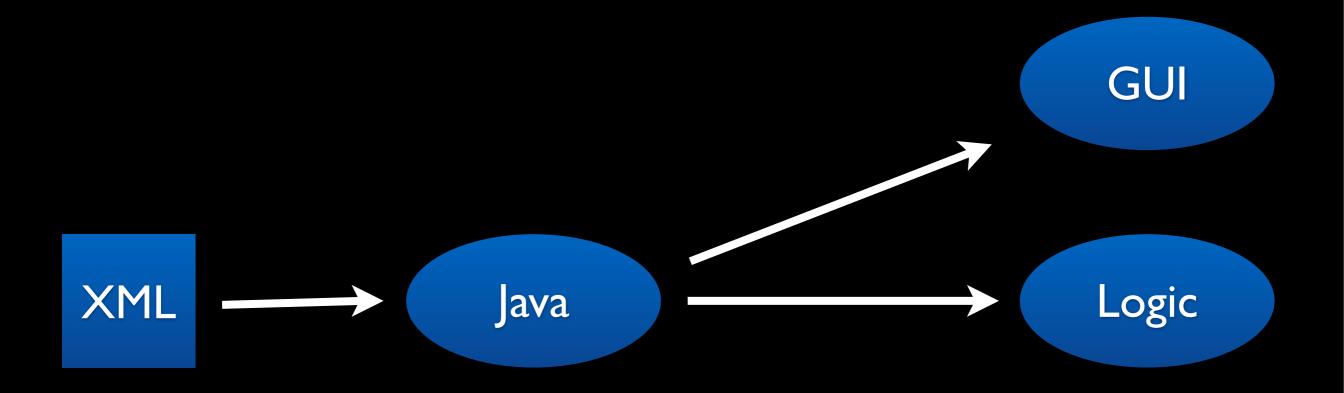


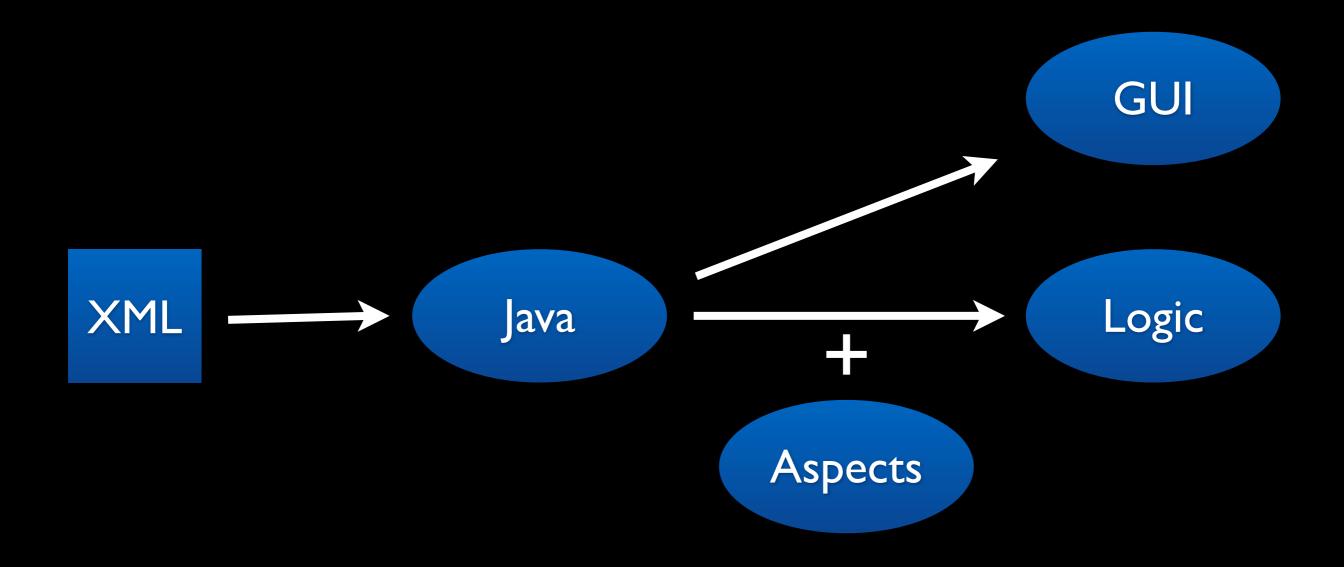


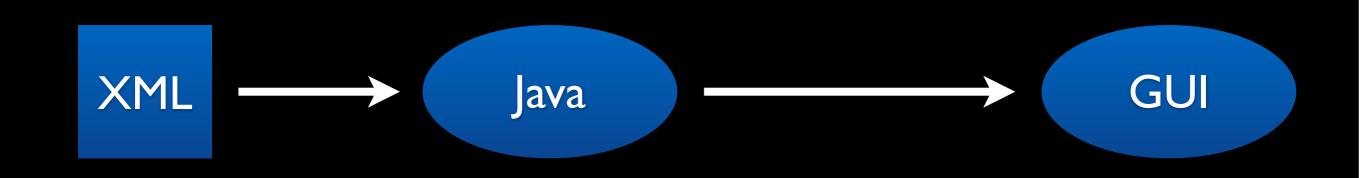




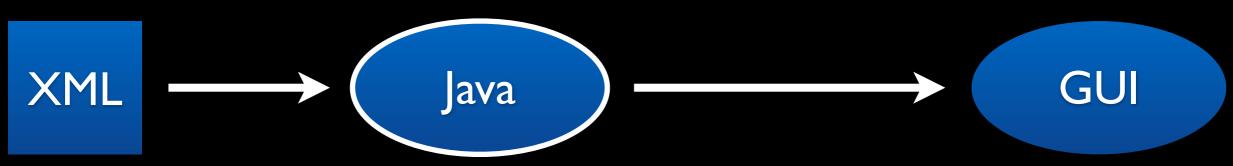








```
<entity name="Person">
   <attribute name="first name"
       type="string" />
   <attribute name="last name"
       type="string" />
   <attribute name="login_name"
       match = [a-z][a-z0-9] + 
       type="string"
       unique="true"
       nullable="false" />
   <attribute name="home_department"
       ref="Department"
       nullable="true" />
</entity>
```

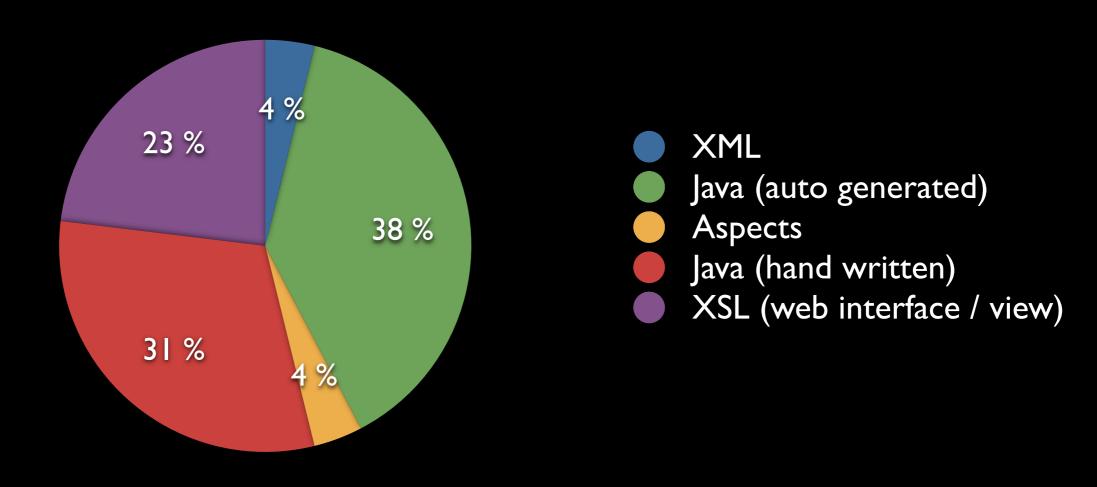


```
<entity name="Perso@Entity(name = "Person")</pre>
   <attribute name=public class Person {
       type="string" /> public class Form {
                           @Required
                          public String firstName;
   <attribute name="last r
       type="string" />
                           @Required
   <attribute name="login public String lastName;"
       match="[a-z][a-z0-9]
       type="string"
                           @Required @Min(3) @Max(40)
       unique="true"
                           @Match("[a-z][a-z0-9]+")
       nullable="false" />
                           public String loginName;
   <attribute name="home"
                           public Department homeDepartment;
       ref="Department"
       nullable="true"/>
</entity>
```

	eate a new user a	account	
	st name:		required, but missing
type="string"	ditional name(s):		
<attribute name="</td"><td>st name:</td><td></td><td>required, but missing</td></attribute>	st name:		required, but missing
	ail address:		
-	in credentials		(accepted (to a Charat)
<attribute name="</td"><td>gin name:</td><td>as</td><td>invalid (tooShort)</td></attribute>	gin name:	as	invalid (tooShort)
match="[a-z][Pas	ssword:		required, but missing
	minsitrative stuff		
unique="true	me department:		The home department of a user is the department where she/he is
	rrent Year:	Economics	allowed to enroll or to teach (however, optional).
	vileges & Roles	English	
	peruser rights:	Chemistry	
<attribute name="n</td"><td></td><td>J</td><td></td></attribute>		J	

nullable="true" />
</entity>

ref="Department"



Code generation

Tools

Code generation

Tools

- consistent code
- changing requirements
- abstract modeling of the problem domain

Code generation

Tools

- profiling to identify performance bottle necks
- benchmarking for specialized and automated testing
- test data generator for real world test

Code generation

Tools

- 70 use cases
- identify execution paths

Code generation

Tools

Thank you!

Any Questions?

Thank you!

