Freie Universität Berlin

MyCourses
A Course Scheduling System

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A Course Scheduling System

Development process

MyCourses
A Course Scheduling System

Development process

Code generation

MyCourses
A Course Scheduling System

Development process

Code generation

Quality assurance

Development process

Risk Management

Intended

Incremental

Iterative Development

Iterative

Actual

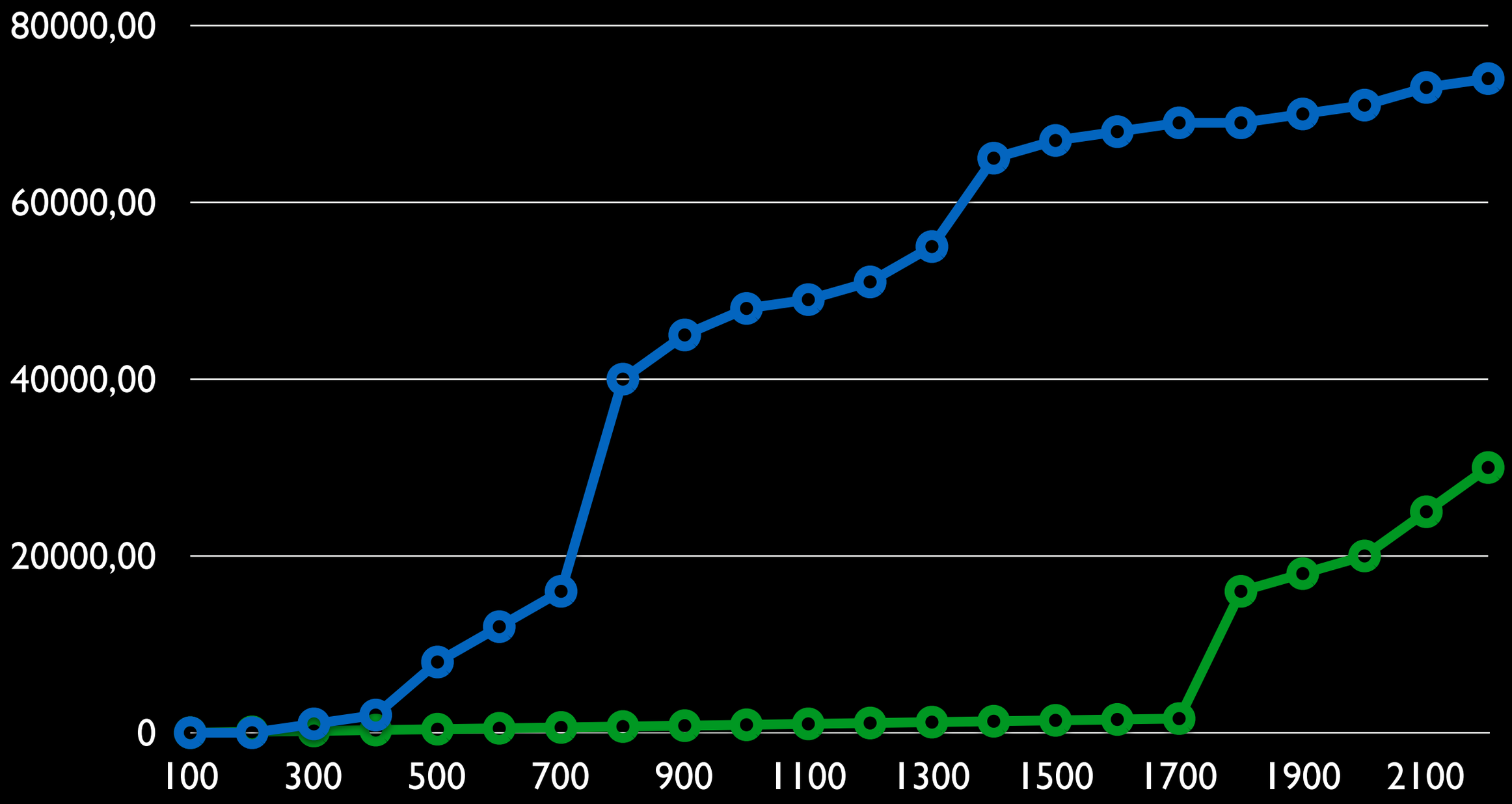
Regular Meetings

Regular meetings

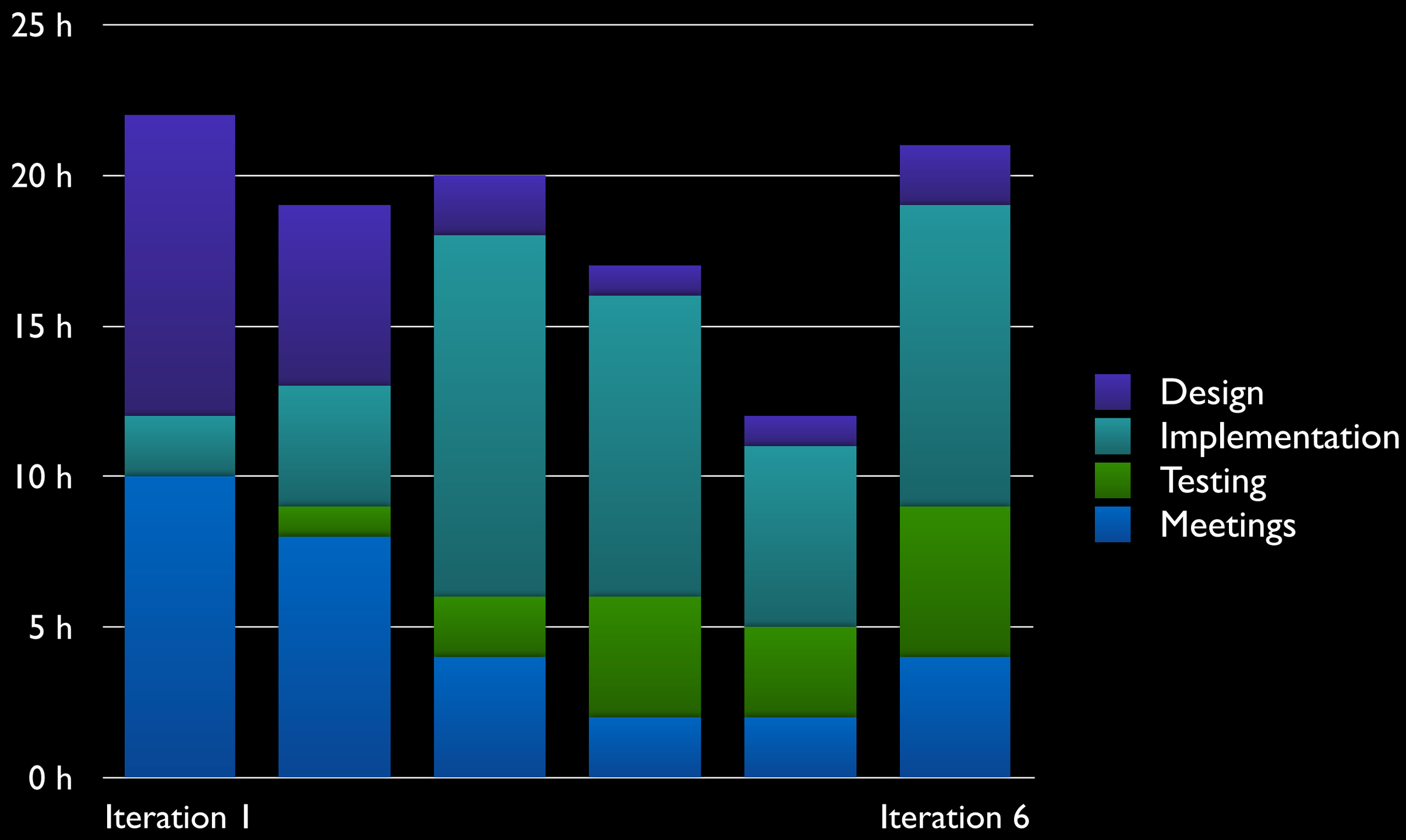
Iterative Development

Dienstag, 26. April 2011 (KW)

Lines of Code per Revision



Hours devoted to the project / per person, per week



Code generation

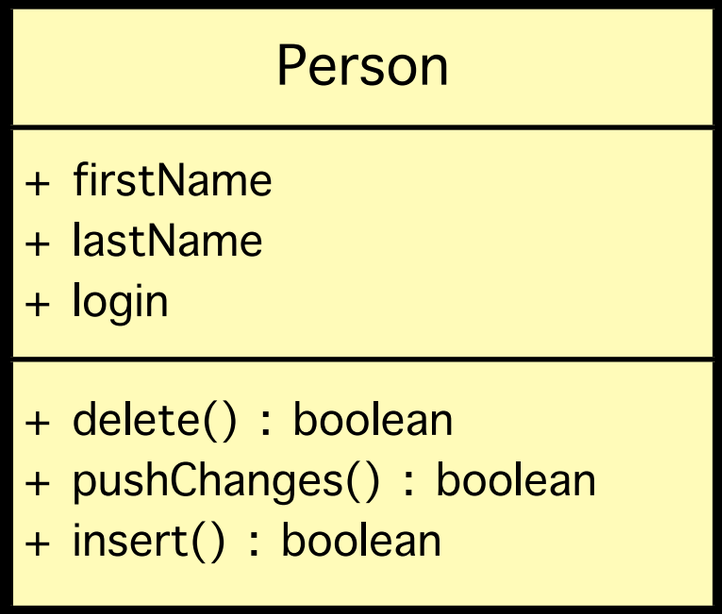
Code generation

Relational model

first_name	last_name	login

Code generation

Object oriented model



Relational model

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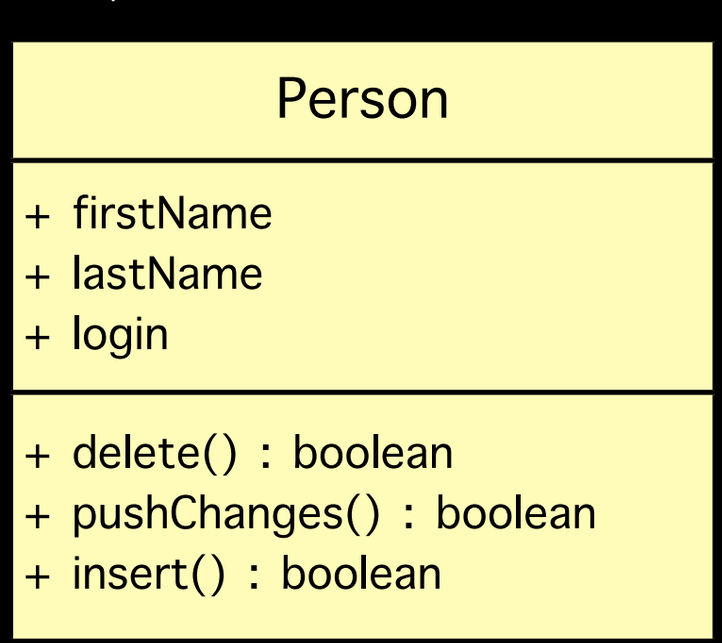
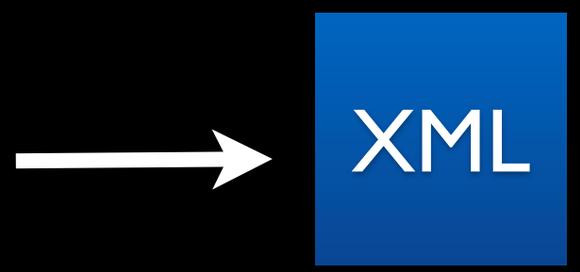
Code generation

Object oriented model





Relational model

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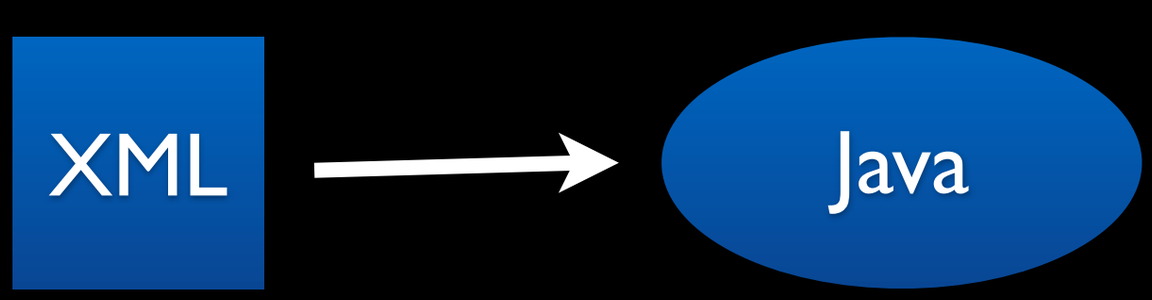
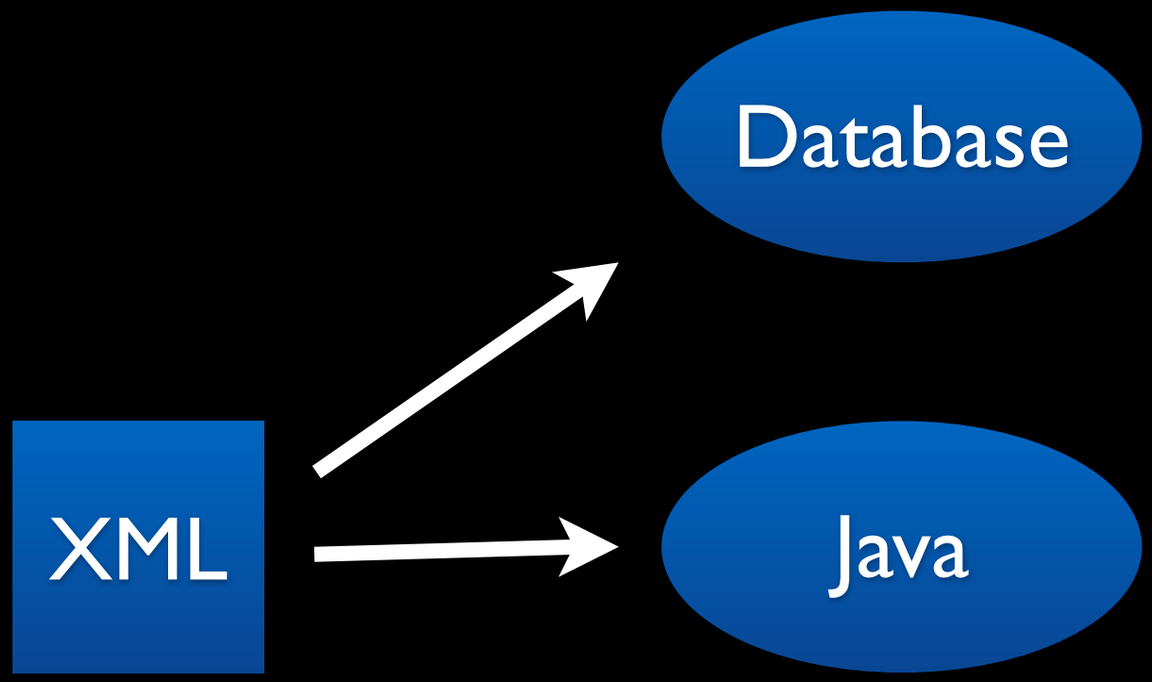
Code generation

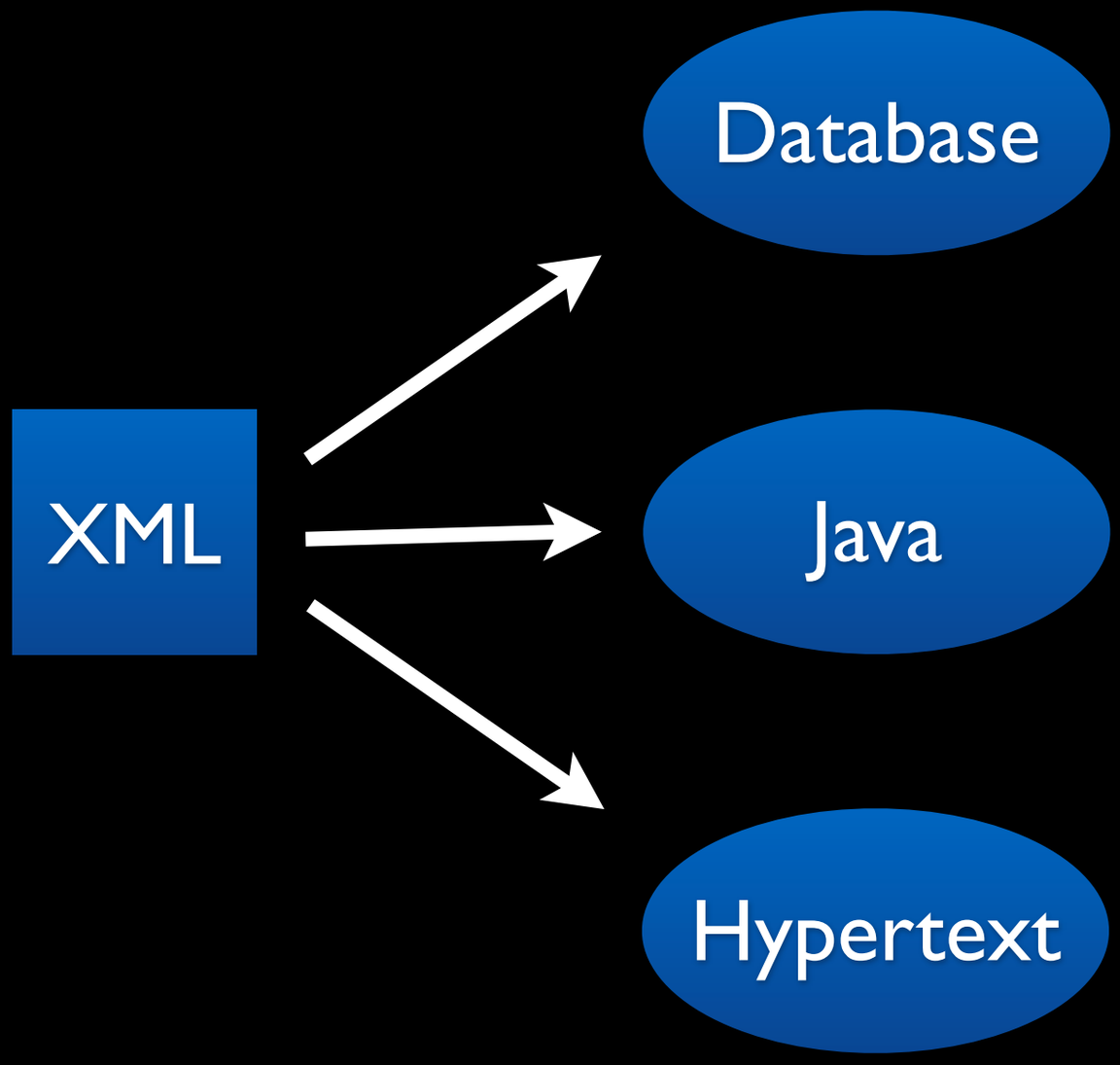
Code generation



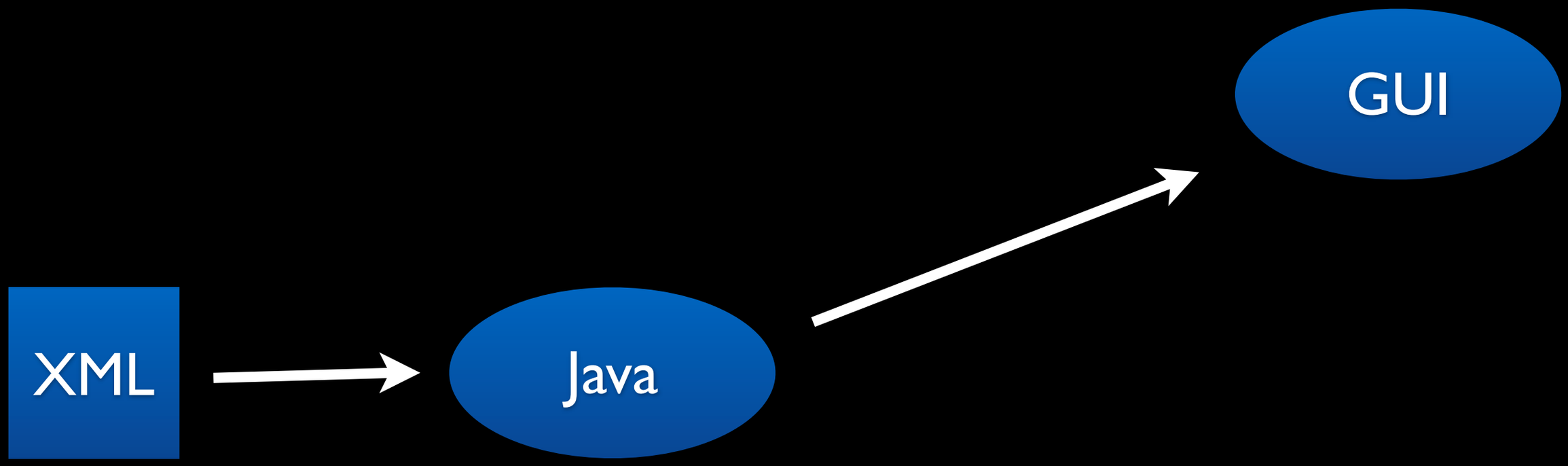
Code generation



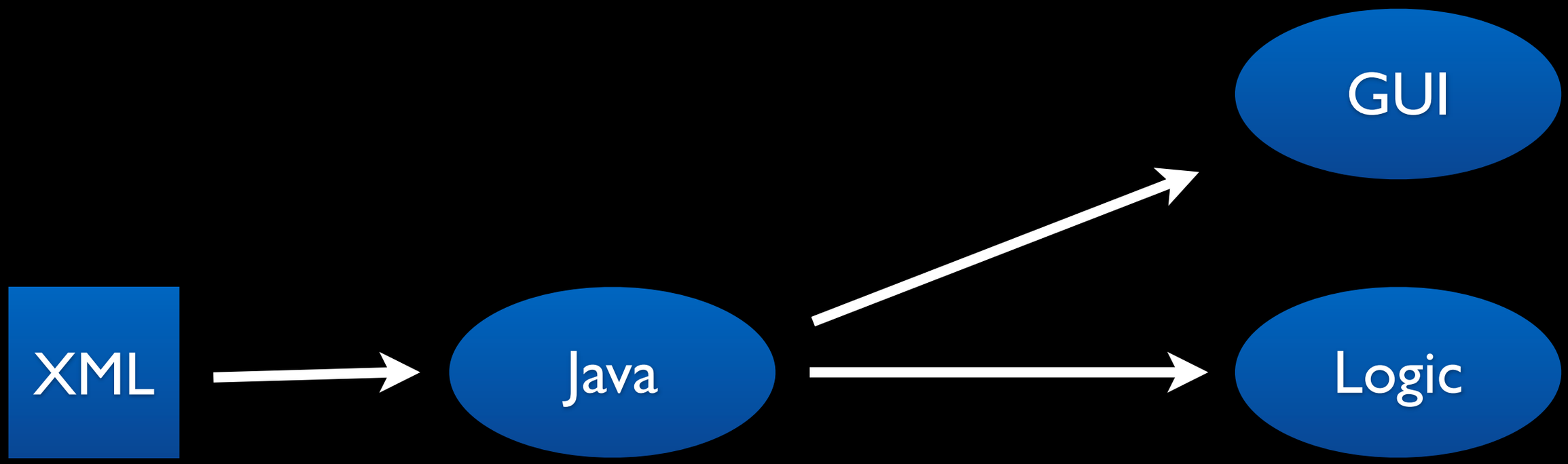
Code generation



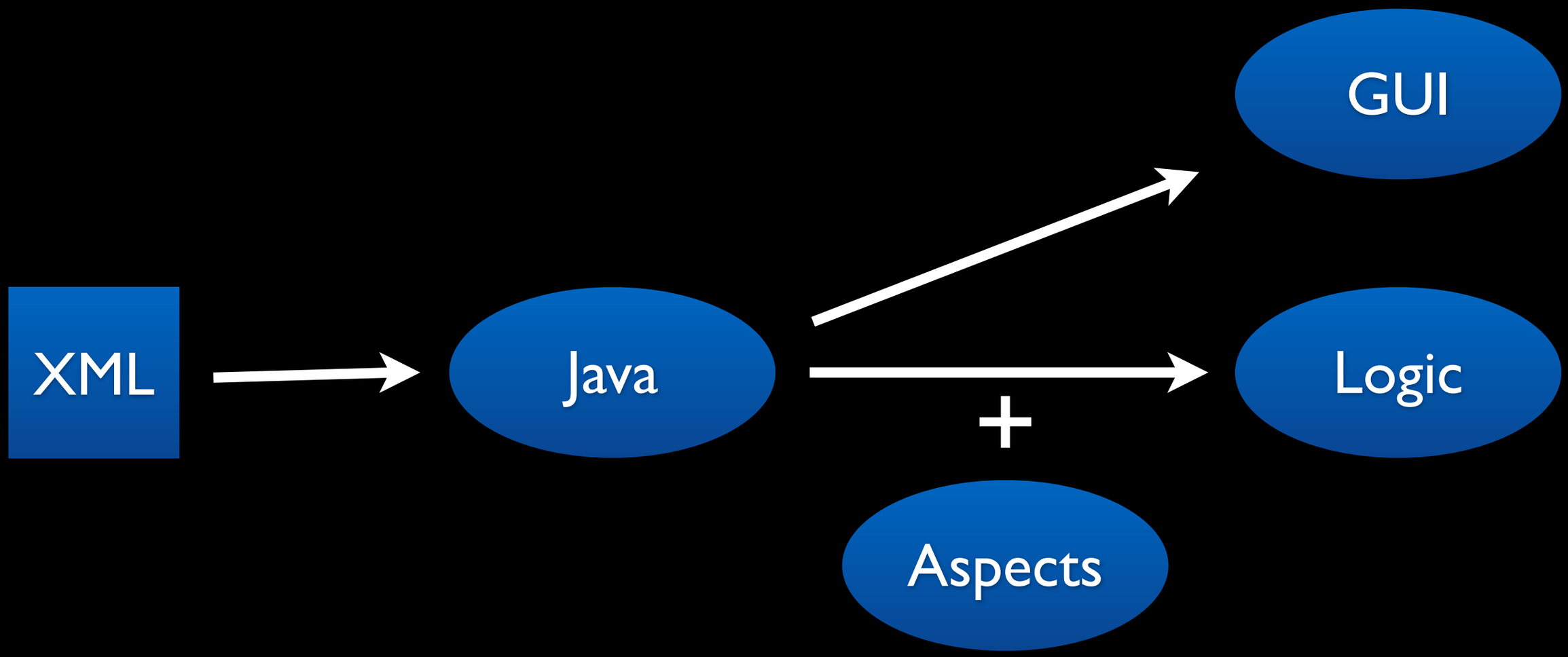
Code generation

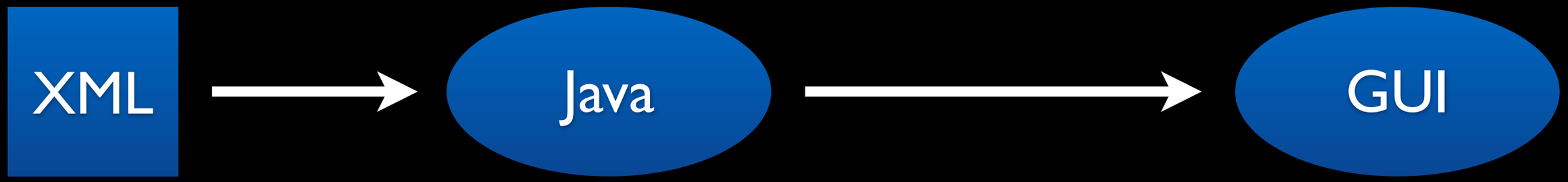


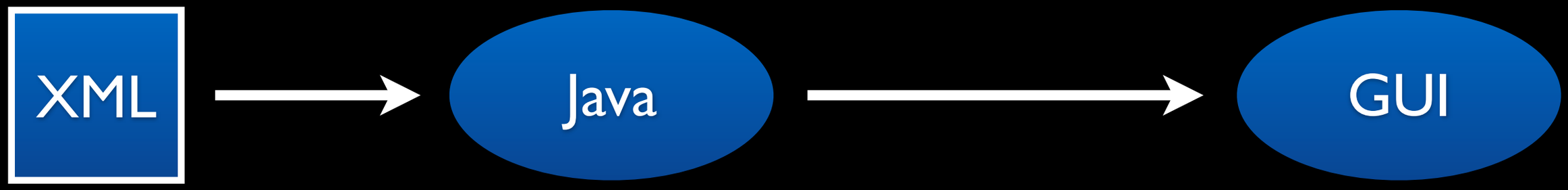
Code generation



Code generation




XML
Java
GUI

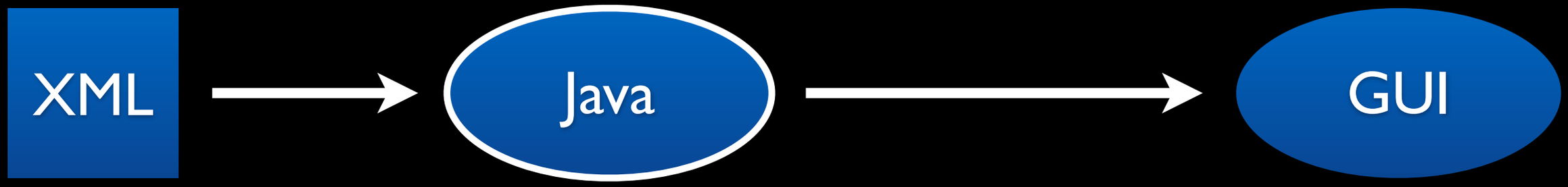



```
<entity name="Person">
    <attribute name="first_name"
        type="string" />

    <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
    <attribute name="
        type="string" />

    <attribute name="last_n
        type="string" />

    <attribute name="login_
        match="[a-z][a-z0-9]+"
        type="string"
        unique="true"
        nullable="false" />

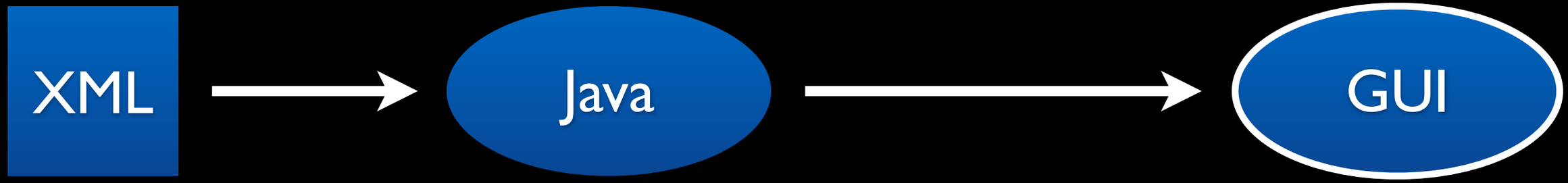
    <attribute name="home_
        ref="Department"
        nullable="true" />
</entity>
```

```
@Entity(name = "Person")
public class Person {
public class Form {
    @Required
    public String firstName;

    @Required
    public String lastName;

    @Required @Min(3) @Max(40)
    @Match("[a-z][a-z0-9]+")
    public String loginName;

    public Department homeDepartment;
}
}
```

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<entity name="Person">
    <attribute name=
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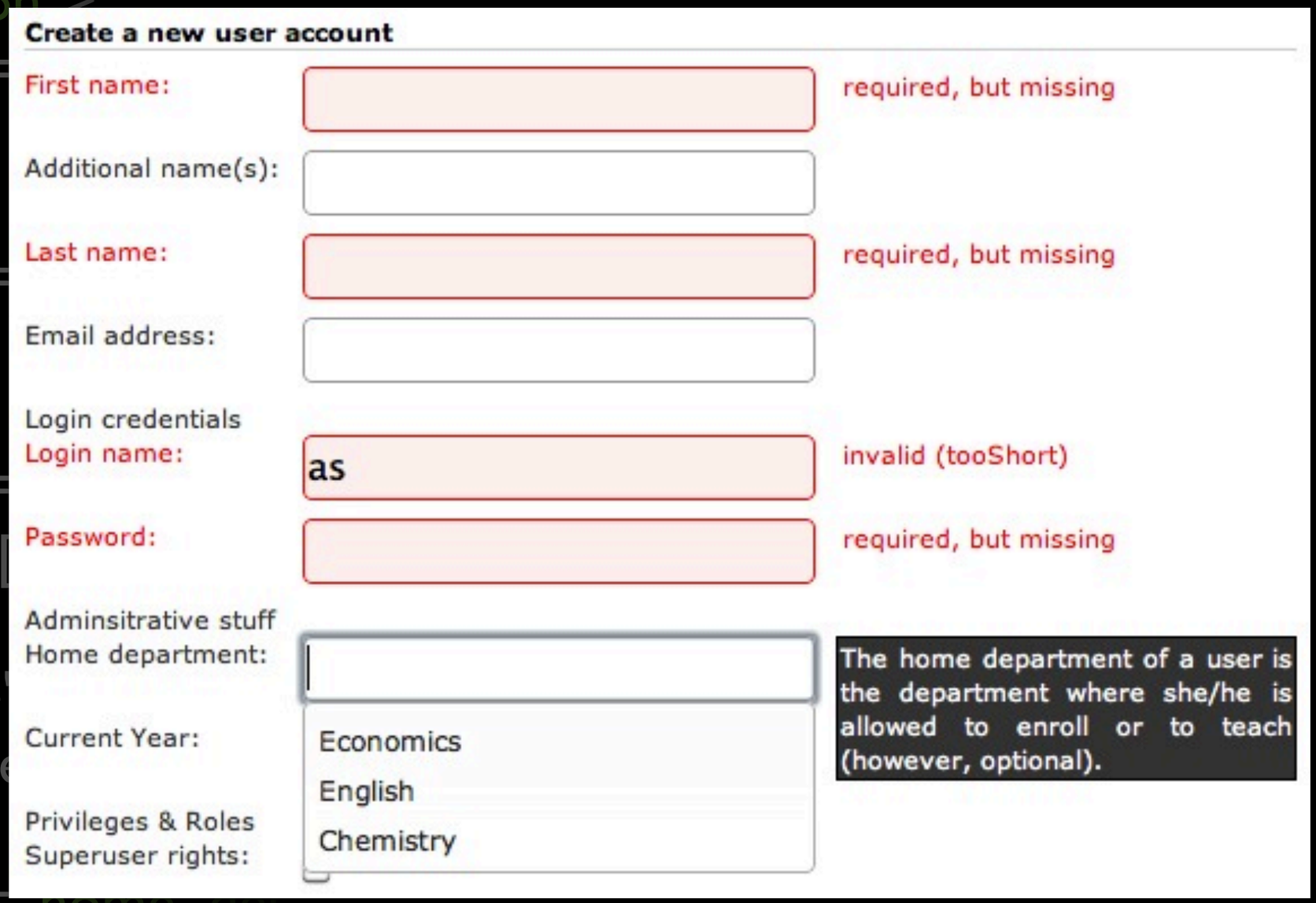
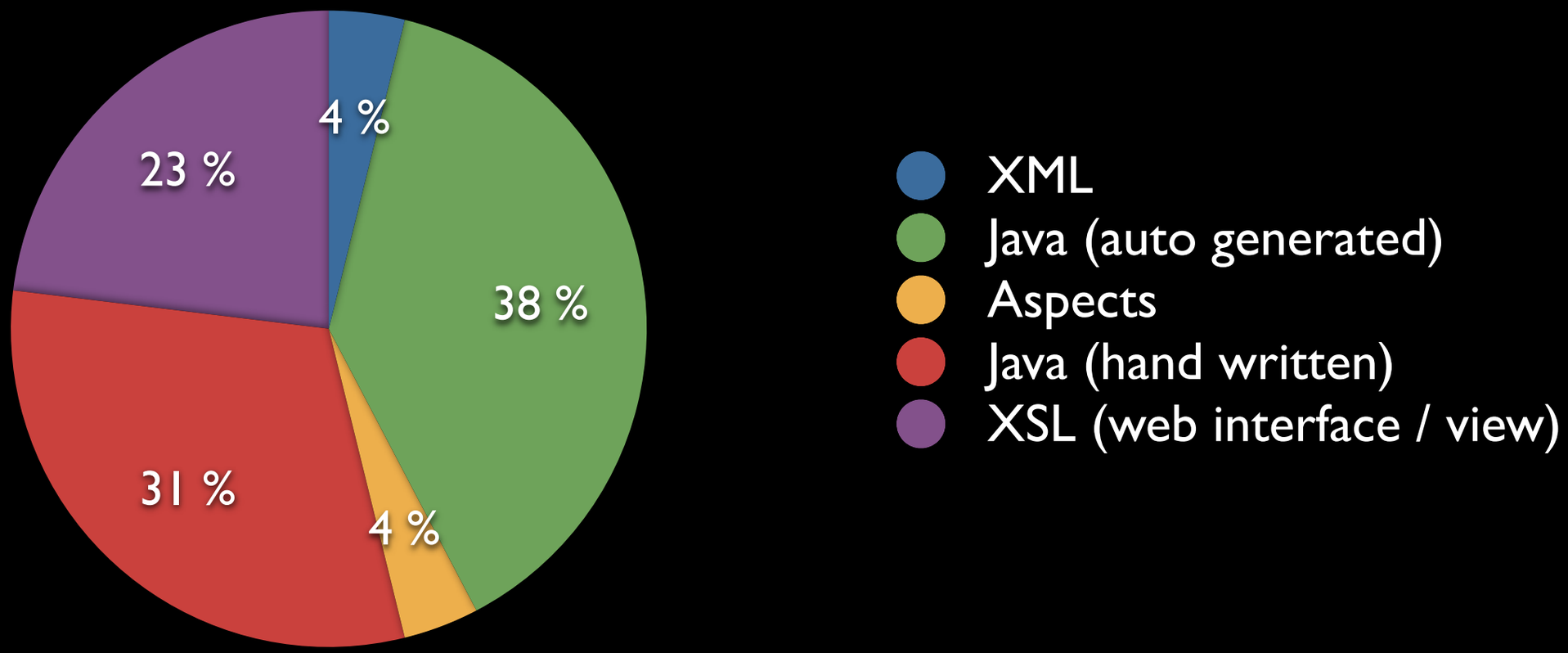
        match="[a-z][
        type="string"
        unique="true"
        nullable="false

    <attribute name= home_dep
        ref="Department"
        nullable="true" />
</entity>
```



Quality assurance



Quality assurance

Code generation

Tools

Use cases

Quality assurance

Code generation | Tools | Use cases

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

Quality assurance

Code generation

Tools

Use cases

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

Quality assurance

Code generation

Tools

Use cases

- 70 use cases
- identify execution paths

Quality assurance

Code generation

Tools

Use cases

Thank you!

Any Questions?

Thank you!

Dienstag, 26. April 2011 (KW)