

CODE Generation in industry: Conecerto and AKR

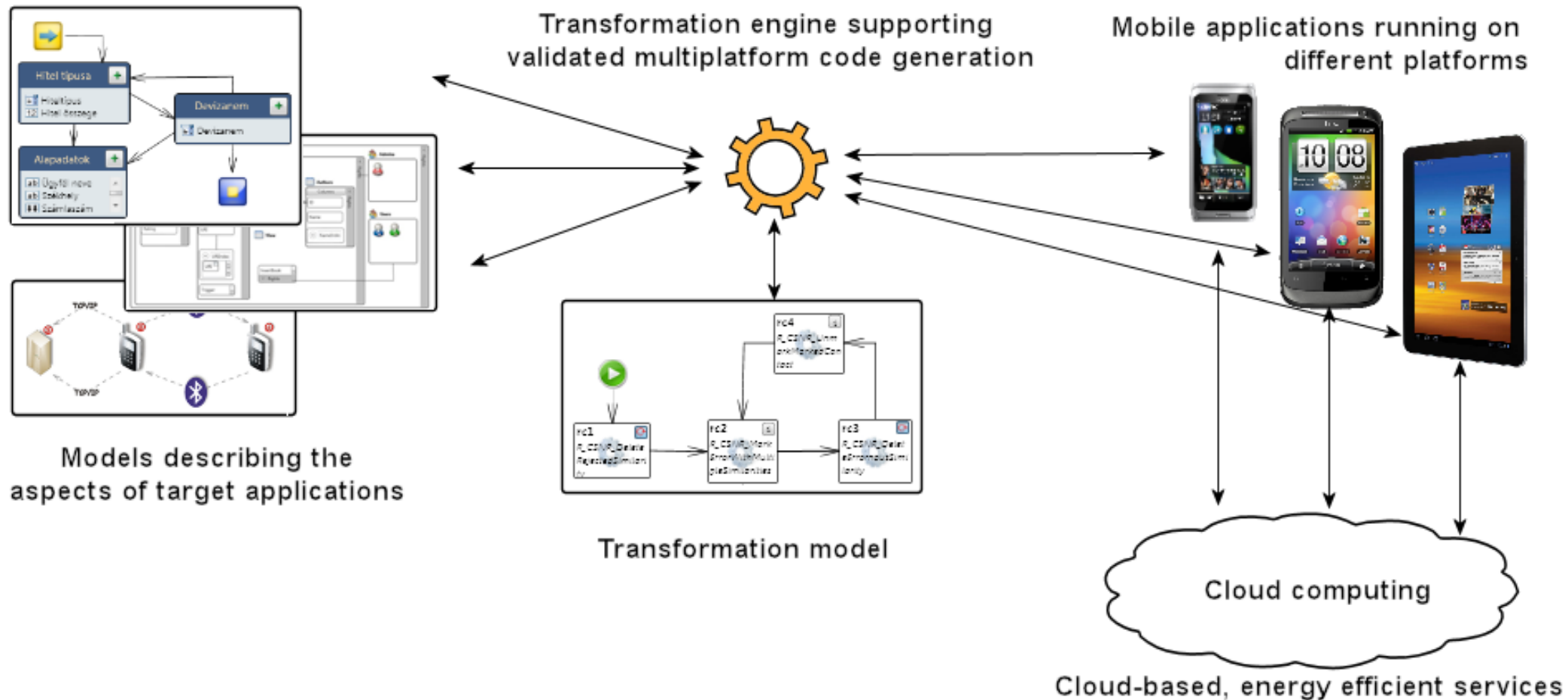
Vilmos Bilicki

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Telemedicine code generation demonstrator
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Supporting multiple mobile platforms



Supporting multiple mobile platforms

Modeling vs. Coding

- Choose the appropriate level, the goal is the efficiency
- Common parts of the applications are modeled and the code is generated
- Gluing code and platform-specific parts are manually added (partial classes, inheritance -> generated code is physically separated)
- Often modeled aspects: static structure, database, dynamic behavior, communication protocol, user interface

Supporting multiple mobile platforms

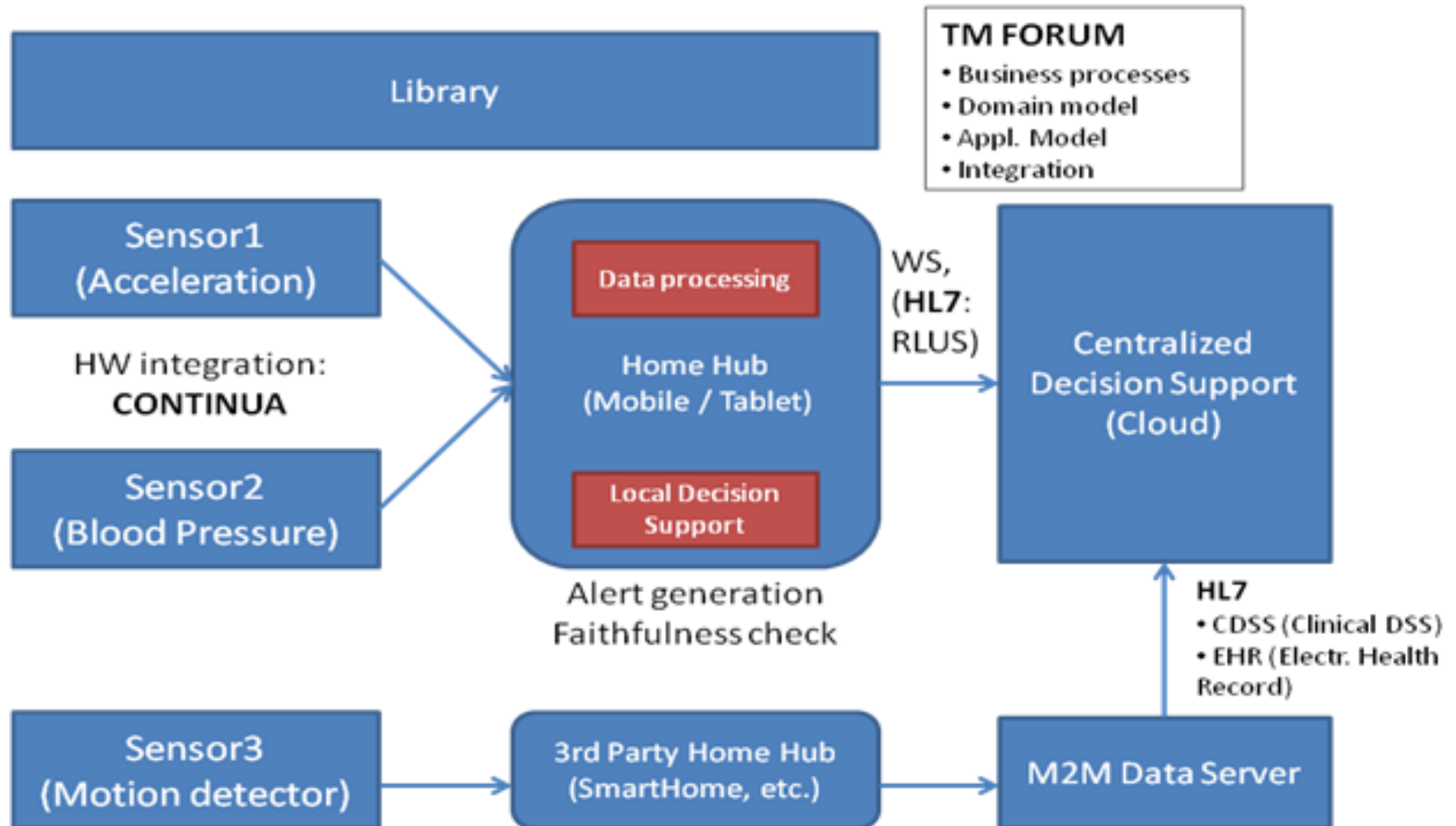
Model Processing

- Generates simple complete applications, or
- Generates components that are manually integrated into complex applications

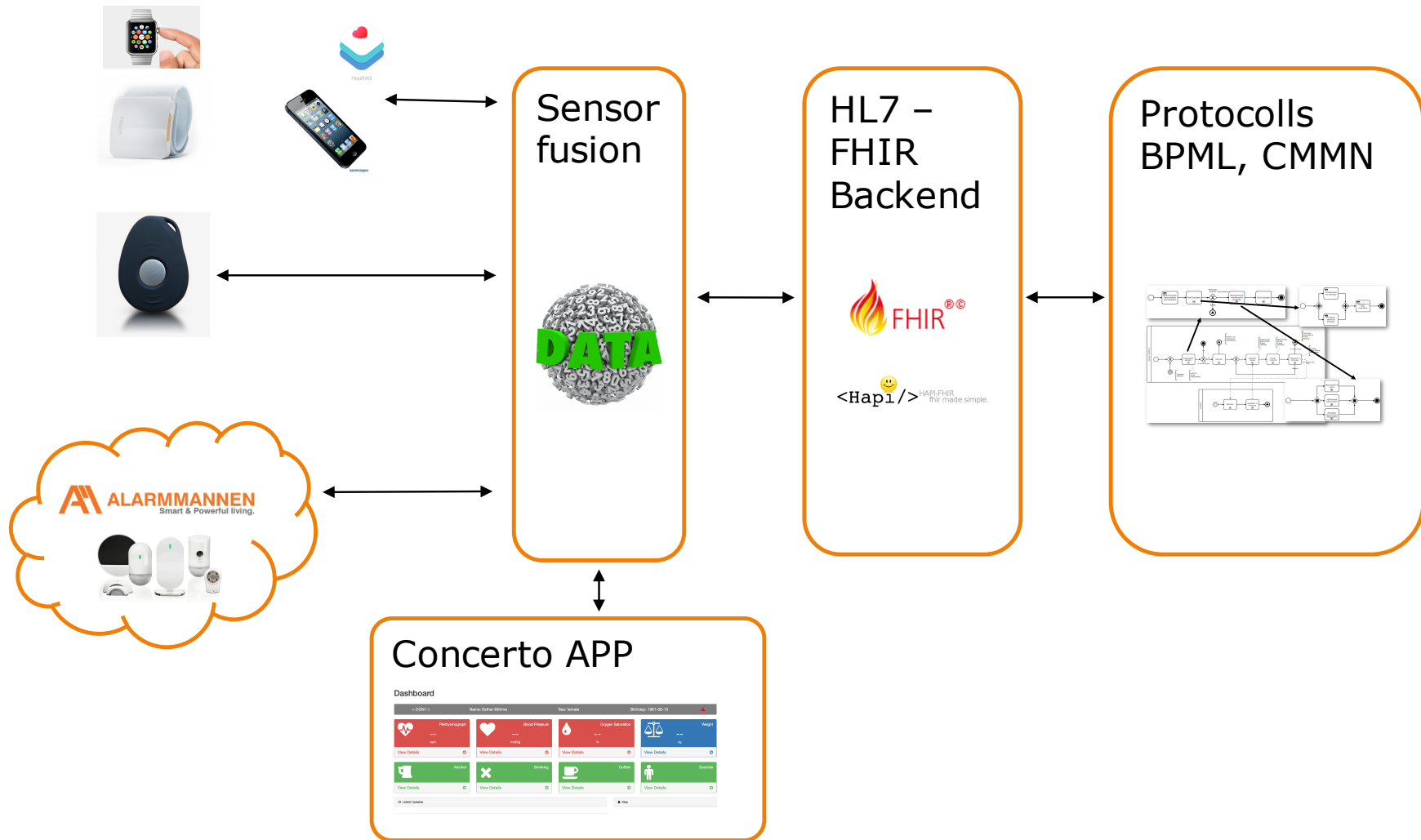
Source code

- Generated: reasonable part of the code is generated from platform-independent models
- Handwritten: custom logic, platform specialties requires platform-specific manual extension

Telecare Demonstartion



Telecare DEMO



GOP-1.1.1-11-2011-0049

JEE based architecture:
reconstruction, evaluation and generation

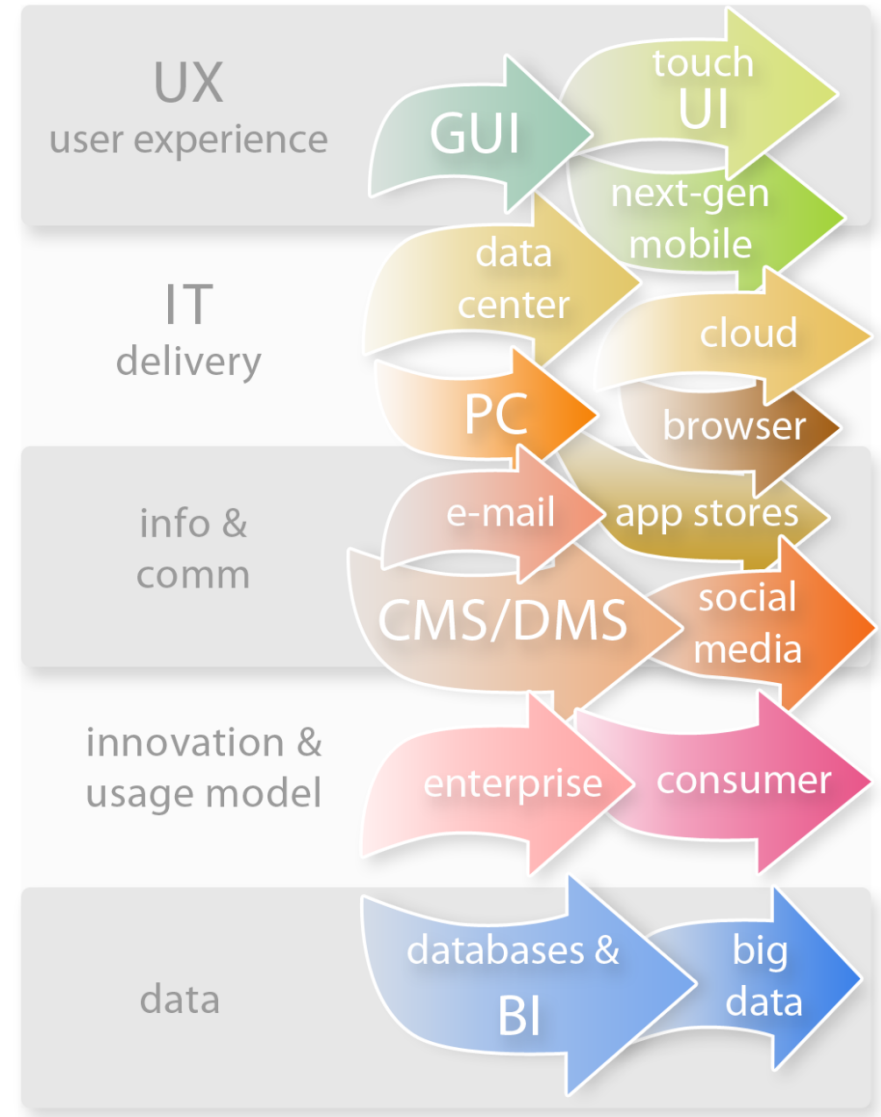
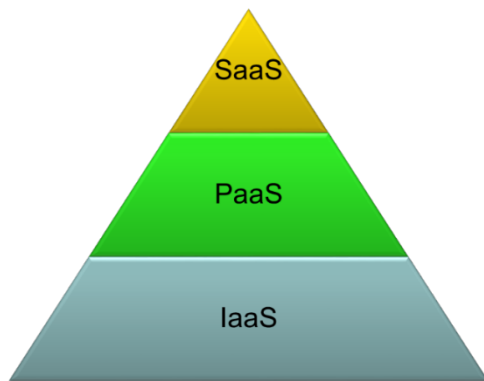
Vilmos Bilicki

R&R

Challenges

• Working code but:

- Old technologies (proprietary ORM, etc)
- The documentation is the code



Solution

Input (Java + description files):

```

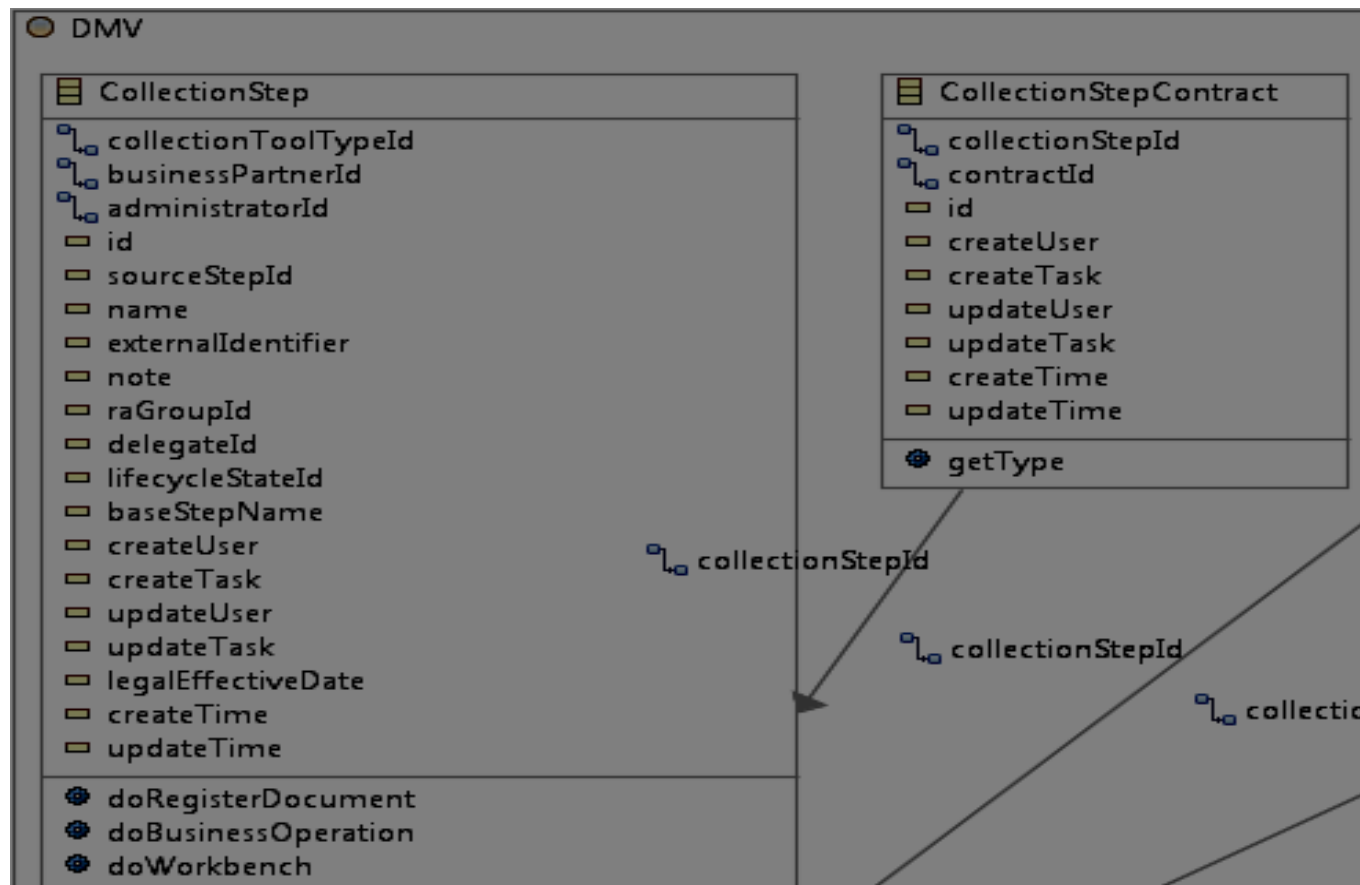
40 public class CollectionStep extends FRPersistentEntity implements ILifecycleState
41     public static final String TYPE = "CLSTEP";
42
43     private String collectionToolTypeId;
44     private String externalIdentifier;
45     private String businessPartnerId;
46     private String administratorId;
47     private String delegateId;
48     private String lifecycleStateId;
49     private String note;
50     private String raGroupId;
51     private String sourceStepId;
52     private List<String> extraIdentifiers;
53     private String baseStepName;
54     private DTime legalEffectiveDate;
55
56     public void doBusinessOperation(String actionName, FRTask sourceTask, Univers
57         AbstractBusinessEntityDescriptor desc = new CollectionStepDescriptor();
58         desc.setIdList(Arrays.asList(new String[] { getId() }));
59         udc.put("DESCRIPTOR", desc);
60         udc.put(TaskConstants.TASK_NEXT, "WorkbenchManagerTask");
61         udc.put("WORKBENCHNAME", "BusinessOperationExecutor");
62     }
  
```

```

35     <attribute type="java.lang.String" name="sourceStepId">
36         <description hu="" en="" />
37         <persistence field="SOURCESTEPID" />
38         <check type="TXT">
39             <param value="1" name="MINLEN" />
40             <param name="M" value="R" />
41         </check>
42         <ui type="ID_T1">
43             <param name="TYPE" value="CLSTEP" />
44         </ui>
45     </attribute>
46
47     <attribute type="java.lang.String" name="name">
48         <description hu="" en="" />
49         <persistence field="name" />
50         <ui type="TXT_T1">
51             <param name="M" value="R" />
52         </ui>
53     </attribute>
  
```

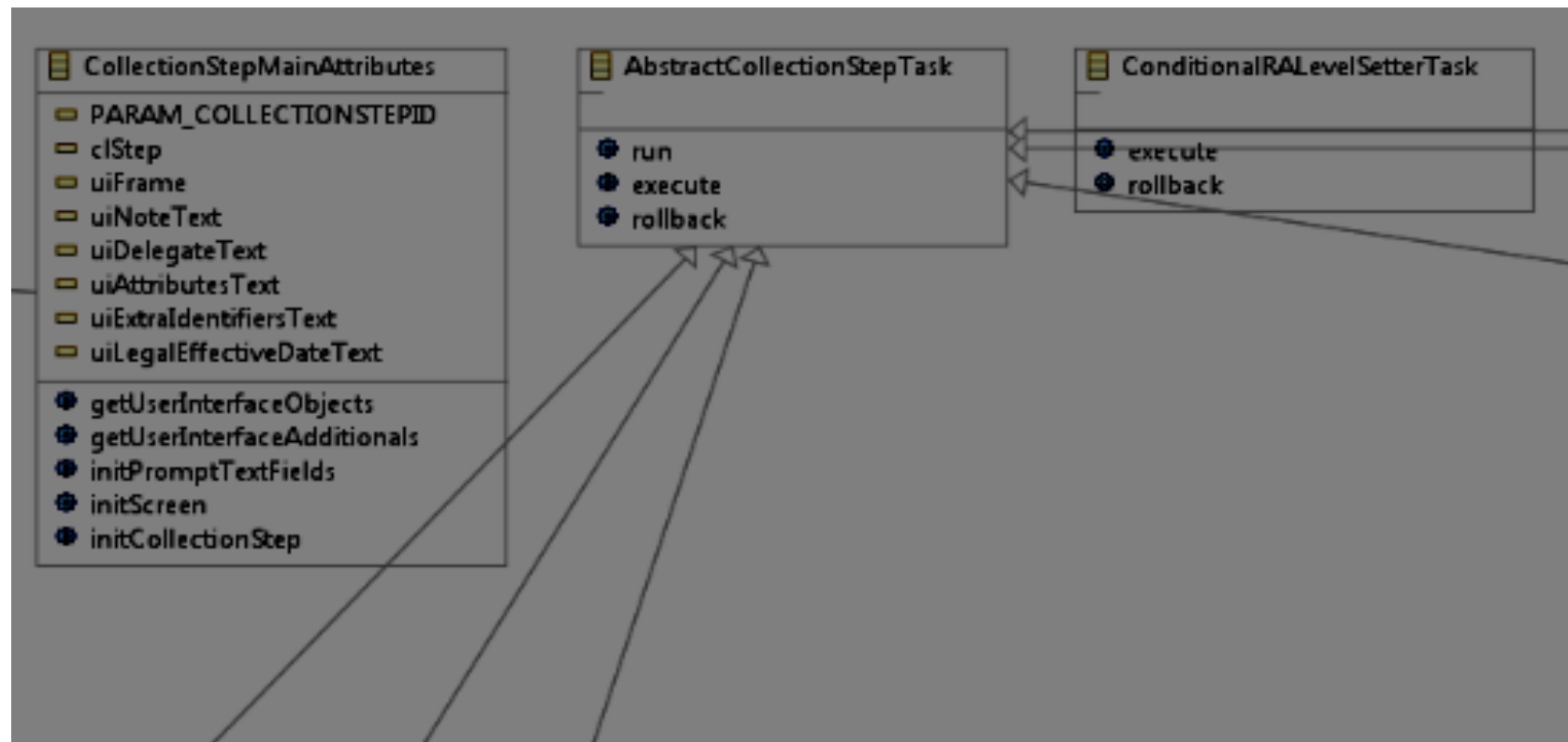
Generating different views

.Domain Model View



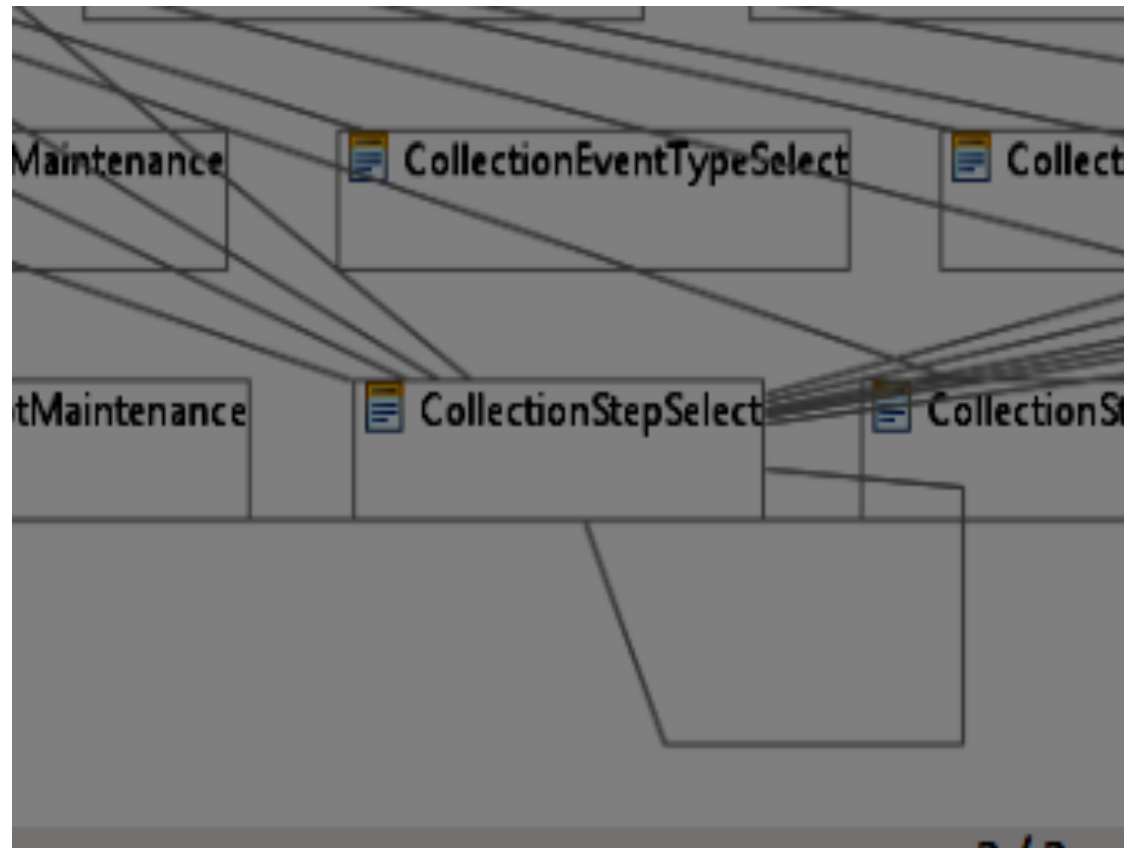
Generating different views

•Business Logic View

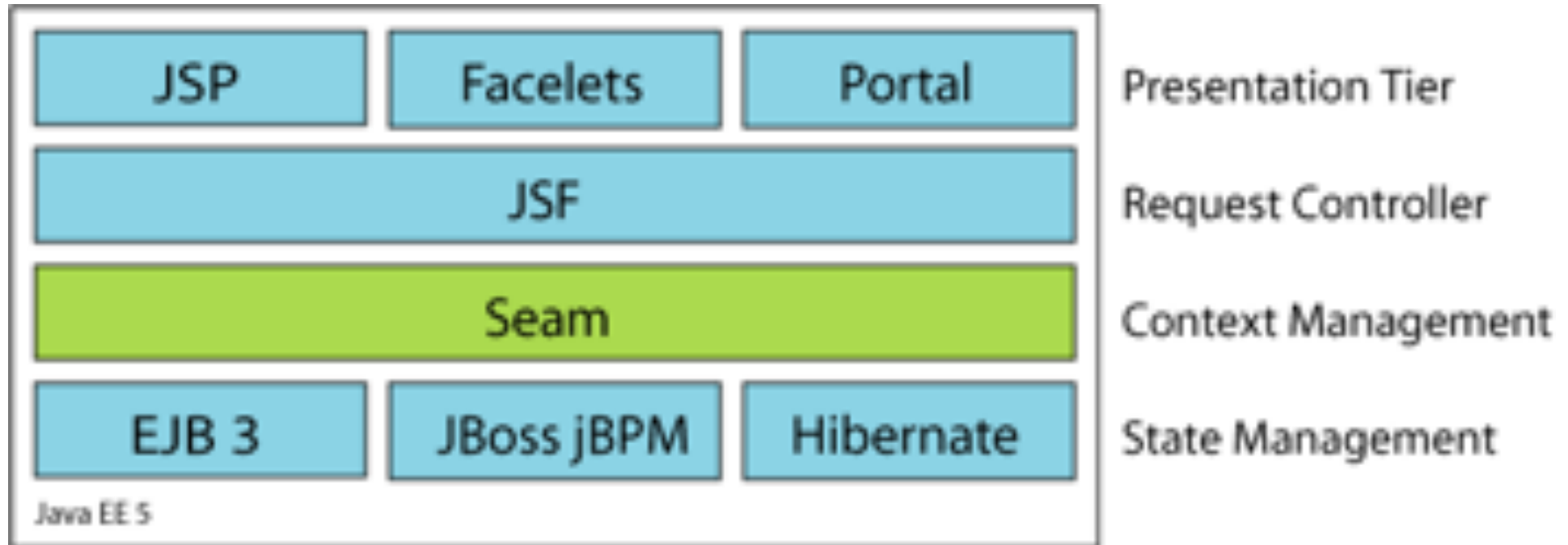


Generating different views

.UI View



Generating the framework based on new stack





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A projekt az Európai Unió
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Q&A

