

MoSIG 2 HECS 2020-2021

ACS Homework

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Homework Part One

Classify the 2 of the 5 key technologies according the Crnkovic et al. A Classification Framework for Software Component Models, TSE 2011, http://www.idt.mdh.se/kurser/cd5490/2014/lectures/tse_classificationFramework.pdf

Classification for the life-cycle dimension :

Component model	Modeling	Implementation	Packaging	Deployment
Spring	N/A	Java	JARs	At run-time
React	N/A	JavaScript	ZIP file and npm package	At run-time and <i>compile-time</i>

Classification for the construction dimension-Interface Specification :

Component model	Interface type	Distinction of Provides/ Requires	Interface Language	Interface Levels (Syntactic, Semantic, Behaviour)
Spring	-Operation-based -Port-based	yes	-Java Programming Language and Annotations -XML and annotation-based configuration.	Syntactic semantics behaviour
React	-Operation-based -	yes	-Java Programming Language Annotations	Syntactic semantics Behaviour

Classification for the Construction Dimension – Binding and Interactions :

Component model	Binding		Interactions	
	Exogenous	Vertical	Interaction Styles	Communication Type
Spring	No	Delegation, Aggregation	Request-Response Sender-Receiver Triggering, Broadcast Pipe&filter	Asynchronous
React	no	Delegation, Aggregation	Request-Response Triggering Broadcast	Synchronous and asynchronous