7班林连南上的复习课  
第一次复习课  
  
三合模式 抽象系统时钟 质量体系  
  
架构活动有哪些 45页

Making a business case for the system

Understanding the architecturally significant requirements

Creating or selecting the architecture

Documenting and communicating the architecture

Analyzing or evaluating the architecture

Implementing and testing the system based on the architecture

Ensuring that the implementation conforms to the architecture

为系统做生意

了解重要的架构要求

创建或选择架构

记录和传达架构

分析或评价体系结构

基于体系结构实现并测试系统

确保实现符合架构

**不要回答成77页的7个**

简答题 很可能的问题 15页架构视图 view model structure静态 动态 逻辑物理架构  
  
25页 为什么软件架构是重要的 13项  
1.Influence quality attributes.

1.影响质量属性。

2.Help reason about and manage change as the system evolves.

2.当系统的发展有助于改变和管理变化的原因。

3.Eearly prediction of a system’s qualities.

3.一个系统的质量的早期预测。

4.Enhances communication among stakeholders.

4.加强利益相关者之间的沟通。

5.Capture the earliest and hence most fundamental, hardest-to-change design decisions.

5.捕捉最早的，因此最根本的，最难改变的设计决策。

6.Defines a set of constraints on subsequent implementation.

6.定义了一组在随后的执行上的约束。

7.Dictates the structure of an organization, or vice versa.

7.决定一个组织的结构，反之亦然。

8.Provide the basis for evolutionary prototyping.

8.为进化的原型设计提供依据。

9.Allows the architect and project manager to reason about cost and schedule.

9.让建筑师和项目经理对成本和进度的原因。

10.As a transferable, reusable model that form the heart of a product line.

10.作为一种可重用的可重用模型，该模型是产品线的核心。

11.Architecture-based development focuses attention on the assembly of components, rather than simply on their creation.

11.架构为基础的发展重点关注的组件组件，而不是简单地在他们的创作。

12.Reducing design and system complexity.

12.减少设计和系统复杂度。

13.Be the foundation for training a new team member

13.为培训新的团队成员奠定基础

77页 架构设计的7个方面 后面的质量体系是围绕着这七点来讲的  
Allocation of responsibilities

Coordination model

Data model

Management of resources

Mapping among architectural elements

Binding time decisions

Choice of technology  
责任分配

协调模式

数据模型

资源管理

架构元素之间的映射

绑定时间思想

技术选择

96页  
  
  
  
  
第二次复习课  
  
软件架构的七个活动  
  
效用树 优先级划分  
  
质量属性场景之间有冲突  
  
  
15页的表  
  
45页的七个活动  
  
78页 第6 7 8个问题

Consider the choice between synchronous and asynchronous communication (a choice in the coordination mechanism category).What quality attribute requirements might lead you to choose one over the other? 在协调机制中，考虑同步和异步通信的选择。什么质量属性的要求可能会导致你选择一个而不是另一个？

Consider the choice between stateful and stateless communication (a choice in the coordination mechanism category).What quality attribute requirements might lead you to choose one over the other? 考虑有状态和无状态的通信之间的选择（在协调机制分类选择）。什么质量属性的要求，可能会导致你选择其中一个而不是另一个？

Most peer-to-peer architecture employs late binding of the topology. What quality attributes does this promote or inhibit?大多数对等架构采用晚绑定的拓扑结构。这种促进或抑制的质量属性是什么？

倒数第三页 架构战术 都要记住 三到五条选择题（ 事前 事中 事后  大题 风险点 敏感点 权衡点 还有一个点 ；根据实际情形选择战术）  
  
173页 10.6第三题 第五题

Many of the tactics for testability are also useful for achieving modifiability. Why do you think that is? 多策略的可测性也有助于实现可变性。你为什么这么认为？

What other quality attributes do you think testability is most in conflict with? What other quality attributes do you think testability is most compatible with?你认为哪些质量属性是与可测性最相冲突的？你认为哪些质量属性和可测性是最相兼容的？  
  
第十三章开始 架构模式  242页broker pattern

The increase available resources performance tactic would lead to multiple brokers, to help with performance and availability. 增加可用资源的性能策略会导致多个代理，以帮助性能和可用性。

The maintain multiple copies tactic would allow each of these brokers to share state, to ensure that they respond identically to client requests. 维护多个副本策略将允许这些中间商共享状态，以确保它们对客户端请求的响应相同。

Load balancing (an application of the scheduling resources tactic) would ensure that one broker is not overloaded while another one sits idle. 负载均衡（一个应用程序的调度资源策略）将确保一个代理不超载，而另一个是空闲的。

Heartbeat, exception detection, or ping/echo would give the replicated brokers a way of notifying clients and notifying each other when one of them is out of service, as a means of detecting faults. 心跳，异常检测，或ping/回声会给复制的代理一种方式通知客户，并通知对方他们中的一个是服务故障，作为检测故障的一种手段。

232页 Map-Reduce Pattern  
  
222页到227页  soa 面向服务的体系结构（细节考选择题 如：驱动soa的主要质量属性是互操作性 正确）  
  
mvc 观察者模式中的订阅模式有什么区别  
  
275 敏捷和体系结构的关系  
  
280页的图和附近的描述  
  
286早熟问题 重构解决  
Commitment and accountability of success-critical stakeholders

成功关键的利益相关者的承诺和责任

Stakeholder "satisficing" (meeting an acceptability threshold) based on success-based negotiations and tradeoffs

利益相关者“满足”（满足可接受阈值）基于谈判和交易成功

Incremental and evolutionary growth of system definition and stakeholder commitment

系统定义和利益相关者承诺的增量和进化增长

Iterative system development and definition

迭代系统开发与定义

Interleaved system definition and development allowing early fielding of core capabilities, continual adaptation to change, and timely growth of complex systems without waiting for every requirement and subsystem to be defined

交错的系统定义和开发允许早期防守核心能力，不断适应变化，以及复杂系统及时生长无需等待每一个需求和子系统定义

Risk management--risk-driven anchor point milestones, while are key to synchronizing and stabilizing all of this concurrent activity

风险管理-风险导向的锚节点的里程碑，而关键的是同步和稳定的所有这一活动288  
  
291页 ASR ERP 如何得到ASR 答案在297页  
  
318  ADD的五个步骤还有输入输出

Choose an element of the system to design选择系统的一个元素来设计

Identify the ASRs for the chosen element给所选元素确定架构重要需求

Generate a design solution for the chosen element为选定元素生成一个设计方案

Inventory remaining requirements and select the input for the next iteration库存剩余需求，选择下一次迭代的输入

Repeat steps 1-4 until all the ASRs have been satisfied重复步骤1-4，直到所有的仓库已满足

架构视图： 包图 部署图 时序图  
  
第十九章 架构的实现和测试  
  
364页 architecture erosion  
  
沙盒机制  
  
409页 表 watchdog为什么是敏感点