TEKNISKA HÖGSKOLAN I LINKÖPING
Institutionen för datavetenskap
Petru Eles

Läsanvisningar

Distribuerade System - TDDB 37

The materials discussed at the lectures will be *directly* covered by the written examination; this material you have to understand and, at the same time, know how to apply to solve problems.

In order to prepare for the exam you have to study:

1. **Lecture notes**: *all the material* presented in the lecture notes may appear in the examination.
2. **Textbook**: you find below chapters and paragraphs from Coulouris' book "Distributed Systems" (third edition), which are related to the examination topics and serve for a better understanding of the material.

Chapter 1. Characterization of Distributed Systems

1.1 Introduction
1.2 Examples of Distributed Systems
1.4 Challenges

Chapter 2. System Models

2.1 Introduction
2.2 Basic Design Issues
2.3 Fundamental Models (without security model)

Chapter 3. Networking and Internetworking

3.4.6 TCP and UDP

Chapter 5. Distributed Objects and Remote Invocation

5.1 Introduction
5.2 Communication Between Distributed Objects
5.3 Remote Procedure Call (without Sun RPC case study)

Chapter 10. Time and Global States

10.1 Introduction
10.2 Clocks, Events, and Process States
10.3 Synchronizing Physical Clocks
10.4 Logical Time and Logical Clocks
10.5 Global States

Chapter 11. Coordination and Agreement

11.1 Introduction

11.2 Distributed Mutual Exclusion (without Maekawa's algorithm)

11.3 Elections

11.4.3 Ordered multicast (without implementing causal ordering, overlapping groups, multicast in synchronous and asynchronous systems)

11.5.3 The Byzantine Generals Problem in Synchronous Systems

Chapter 14. Replication

14.1 Introduction

11.2 Transactions with replicated data (without virtual partition algorithm)

Chapter 17. Corba Case Study

Notice: there are several issues discussed at the lectures, which are not covered in the text-book. The lecture notes should be sufficiently explicit to understand them.

Some other material related to the course topic:

2. Andrew S. Tannenbaum: "Distributed Systems", Prentice-Hall International, 2002.
3. Mukesh Singhal, Niranjan G. Shivaratri: "Advanced Concepts in Operating Systems", McGraw-Hill, 1994.
7. http://www.omg.org/ (on OMG and CORBA).

The maximal number of points for the exam will be 40.
In order to pass the exam you have to collect a total of minimum 21 points.