

# Seminar - intro

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*Distributed systems - student version*

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## Question 1

What is the role of middleware in a distributed system?

## Question 2

Explain what is meant by (distribution) transparency, and give examples of different types of transparency.

## Question 3

Why is it sometimes so hard to hide the occurrence and recovery from failures in a distributed system?

lost performance, change between server

## Question 4

Why is it not always a good idea to aim at implementing the highest degree of transparency possible?

## Question 5

Describe precisely what is meant by a scalable system. Scalability can be achieved by applying different techniques. What are these techniques?

hiding communications, Like DNS, Cache (Client)/Replica (Server)

## Question 6

When a transaction is aborted, we have said that the world is restored to its previous state, as though the transaction had never happened. We lied. Give an example where resetting the world is impossible.

## Question 7

We argued that distribution transparency may not be in place for pervasive systems. This statement is not true for all types of transparencies. Give an example.

## Question 8

A server program written in one language (for example C++) provides the implementation of a BLOB object that is intended to be accessed by clients that may be written in a different language (for example Java). The client and server computers may have different hardware, but all of them are attached to an internet. Describe the problems that need to be solved to make it possible for a client object to invoke a method on the server object.