IMT3441 Database and application administration - 2013-2014

Course code:
IMT3441

Course name:
Database and application administration

Course level:
Bachelor (syklus 1)

ECTS Credits:
10

Duration:
Vår

Language of instruction:
Norwegian

On the basis of:
IMT2261-Informasjonsstrukturer og databaser eller IMT2571 Datamodellering og databasesystemer

IMT2431-Datakommunikasjon og nettverkssikkerhet

Expected learning outcomes:
After course completion, the student will be able to

- Install and configure databases and web-based applications
- install web servers
- Implement periodic and incremental backup of databases
- implement load balancing between several web servers
- implement replication between databases for improved performance
- utilize application level caching mechanisms

Furthermore, the student will

- be knowledgable on different methods to organize a distributed application architecture
- be knowledgable on strategies to handle a several heterogenous servers in a organized manner
- be able to discuss the difference between active and passive performance benchmarks
- be able to utilize descriptive statistics and distributions in order to do performance analysis
- be able to conduct performance measurements on filesystem, database and webserver performance
- discuss strategies for resource scaling for improved performance
- discuss strategies on challenges related to continous operations

Topic(s):

- Database environments
- Database and application architectures
- Performance analysis
- Capacity planning
- Data migration
- Data integrity
- Governance of historical data
- Webapplications and scenarios

Teaching Methods:
Lectures
Group works

Form(s) of Assessment:
Written exam, 3 hours

Grading Scale:
Alphabetical Scale, A(best) – F (fail)

External/internal examiner:
Intern sensor

Re-sit examination:
Ordinær kontinuasjon

Tillatte hjelpemidler:

Examination support:
Ingen

Coursework Requirements:
3 oppgaver

Academic responsibility:
Faculty of Computer Science and Media Technology

Course responsibility:
Førsteamanuensis II Kyrre M. Begnum

Teaching Materials:
Theo Schlossnagle. "Scalable Internet Architectures". Pearson Education, 2006. ISBN-10: 067232699X.

+ slides og tilleggslitteratur som deles ut.

Additional information:
Det antas at IMT2282 Operativsystemer tas parallelt

Publish:
Yes