C132B: DATABASE SYSTEM APPLICATIONS

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ICS - FORTH, Heraklion, Crete

Room: 214
Building: CENTR

Tentative Plan

- From Relational to Object Database Management Systems
  - The Relational Model
  - N1NF Databases & Complex Values
  - Extended Relational Databases
  - Persistent Programming Languages
  - Object-Oriented Databases

- The ODMG Standard
  - The ODMG Object Definition Language
  - The ODMG Object Query Language
  - The ODMG Object Programming Languages Bindings: C++, Java
Tentative Plan

- Current Trends: Object-Relational DBMS
  - The ANSI SQL3 Standard
  - Comparing ODMG OQL & ANSI SQL3

- Web DBMS Gateways
  - Web data standards: HTML vs XML
  - Gateway Architectures: server vs client extensions
  - Web Site Management Tools

Textbook Material

- Main Text

- Supplementary Texts
  - Object-Relational DBMSs: The Next Great Wave by Michael Stonebraker with Dorothy Moore, Morgan Kaufmann, 1996.
# Grading

<table>
<thead>
<tr>
<th>Component</th>
<th>Weight</th>
<th>Date</th>
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<tbody>
<tr>
<td>Midterm Exam</td>
<td>15 %</td>
<td>(Thursday 05 18 2000)</td>
</tr>
<tr>
<td>Final Exam</td>
<td>30 %</td>
<td>(Thursday 06 15 2000)</td>
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<tr>
<td>Project</td>
<td>50 %</td>
<td></td>
</tr>
<tr>
<td>Participation</td>
<td>5 %</td>
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# Project

- **Description:** We would like to build an online guide for the San Diego city events (e.g. sandiego.citysearch.com, www.pariscope.fr, etc.)
  - Develop a database, enhanced with a Web interface, with information about movies and theaters, museum exhibitions and music concerts, restaurants and bars, etc.
- **Objective:** cover all the phases of modern information systems development from requirements analysis and specification until implementation and testing
  - Selection of real data for the San Diego database is part of the project
The San Diego City Search

Project

- Available Tools
  - The O2 ODBMS
  - The O2Web Gateway
- Organization: The project will be realized by groups of 3-4 students and comprises 3 parts. Each group will designate a responsible for each project part
  - Part 1: Schema Design 30% (Friday 04 21 2000)
  - Part 2: Application Implementation 40% (Friday 05 19 2000)
  - Part 3: Build the Web Gateway 30% (Friday 06 09 2000)
- About Deliverables:
  - Late assignments & Hand written assignments (Part 1 & 2 & 3) are NOT acceptable!!
  - Online demonstration (Part 2 & 3)