## Universidade da Beira Interior

## Databases

# Program

- 1. Introduction to databases (Chapter 1 of [Connolly99])
- 2. Database Environment (Chapter 2 of [Connolly99])
- 2.1. ANSI-SPARC Architecture
  - 2.2. Database languages
  - 2.3. Data Models
  - 2.4. Database management systems
- 3. Relational Model (Chapter 3 of [Connolly99])
- 3.1 Relational integrity
- 3.2. Relational Languages
- 3.2.1 Relational Algebra
- 4. Entity Relationship modeling (Chapter 5 of [Connolly99])
- 5. Normalization (Chapter 6 of [Connolly99])
- 6. Structure Query Language SQL (Lab Classes) (Chapters 13 and 14 of [Connolly99])

## **Bibliography:**

[Connolly99] Connolly, Thomas, Carolyn Begg and Anne Strachan, *Database Systems*, *A Pratical Approach to Design, Implementation and Management*, Addison-Wesley 2nd Edition, 1999.

UBI library: I-6.2-53

#### **Assessment:**

1- For each chapter studied, do the "review questions". (2 points)

```
Chap 1 - 0.25 points - deliver: 30/10 Chap 2 - 0.25 points - " 6/11 Chap 3 - 0.25 points - " 20/11 Chap 13 - 0.25 points - " 27/11 Chap 5 - 0.25 points - " 4/12 Chap 14 - 0.5 points - " 11/12 Chap 6 - 0.25 points - " 18/12
```

2 – Project. (8 points)

Groups with 2 students.

The project is given on 23/11 and must be delivered on 11/01/2008.

Classes of 10/12, 17/12 and 7/1 are for working in the project.

The project is presented in one class of the last two weeks.

- 3 A written test on 8/01/2008, 14:00 hours, room 6/2. (10 points)
- 4 A written test about the project (8 points). 22/1/2008, 14:00 hours, room 6/2.

If the student improves the classification it keeps the project classification. If the student decreases the classification, the new classification will be the project classification.