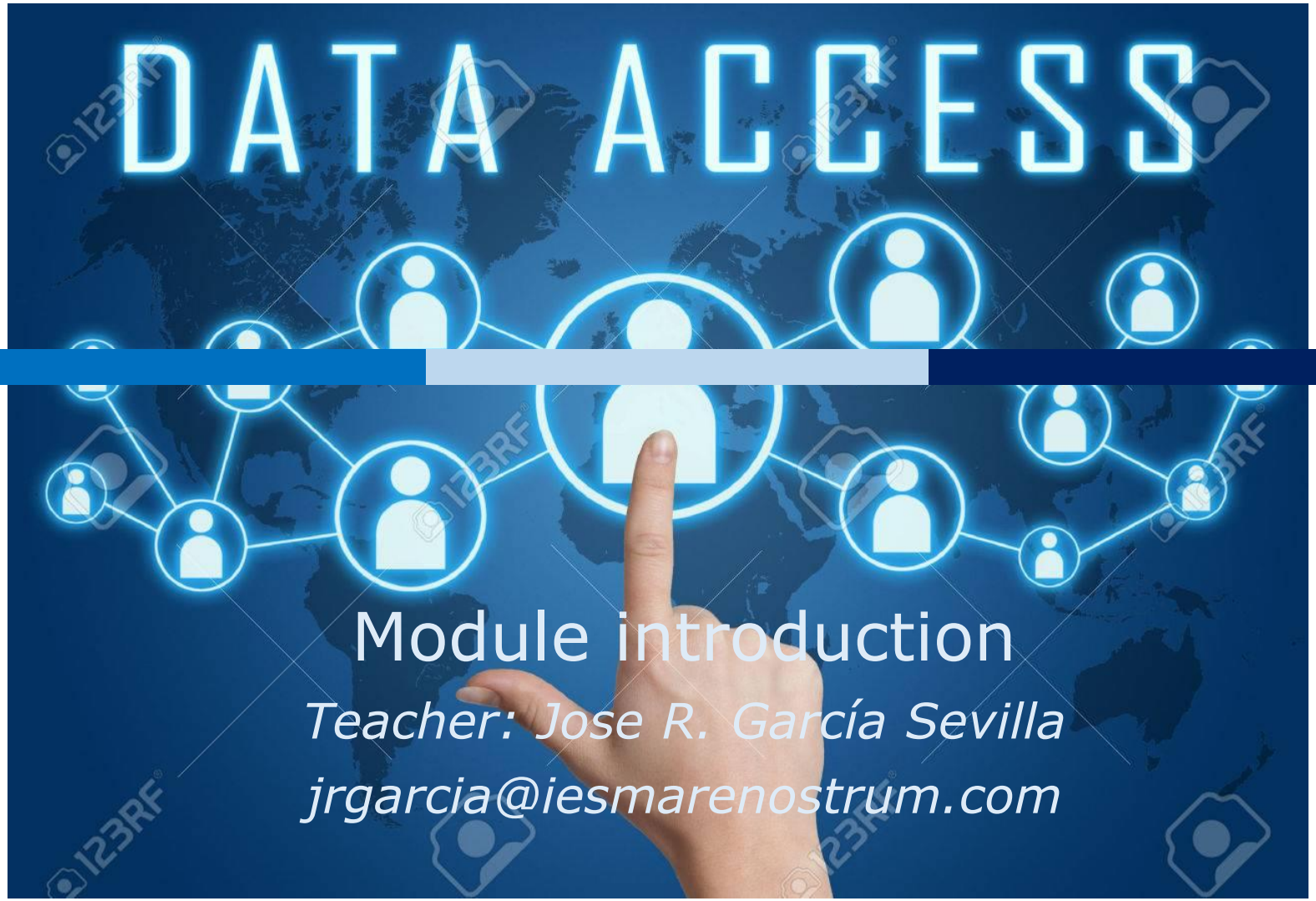

Module introduction

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Module introduction

- Main goals
- Contents
- Time schedule
- Assessment
- Resources

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Main goals (RD 450/2010, BOE 20-05-2010)

b) Identify security needs by analyzing vulnerabilities and verifying the pre-established plan to apply techniques and procedures related to security in the system.

c) Understand the logical design of databases, analyzing and complying with the specifications related to their application, to manage databases.

e) Select and use languages, tools and libraries, interpreting the specifications to develop cross-platform applications with access to databases.

f) Manage the stored information, planning and implementing forms and reporting systems to develop management applications.

l) Evaluate and use specific tools, taking into account the structure of the contents, to create tutorials, user manuals and other documents associated with an application.

q) Select and use languages and tools, according to the requirements, to develop customized components in ERP-CRM systems.

r) Verify the software components developed, analyzing the specifications, to complete a test plan.

Content

- Unit 1: Migrating from C# to Java
- Unit 2: File persistence. Streams.
- Unit 3. Database persistence. Connectors.
- Unit 4. Object-relational and object-oriented databases.
- Unidad 5. Object-relational mapping. Hibernate.
- Unidad 6. Non-structured databases. MongoDB.

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Time Schedule

Work unit	Duration (hours)	1	2
Unit 1.Migrating from C# to JAVA	9	✓	
Unit 2. File persistence. Streams.	27	✓	
Unit 3. Database persistence. Connectors.	30	✓	
Unit 4. ORDBMS and OODBMS	24		✓
Unit 5. Object-relational mapping. Hibernate.	24		✓
Unit 6. Non-structured databases. MongoDB.	18		✓

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Assessment Criteria

- **Assesment period score = (exam_score x 0,15) + (activities_score x 0,70) + (english_assesment_score x 0,1)**

- A score equal to or greater than five is required to pass the assessment period.

- English will be assessed via the daily work (glossary making, names used while developing applications, etc) and, optionally, a simple test made at the end of every assesment period.

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Assessment criteria: exam

- The exam score is the score obtained in the specific task made at the end of the assesment period. This task will be designed to proof that the student is the author of the activities that he/she has delivered.

- During the exam, the student will be able to check whatever material or document supplied via Moodle by the teacher.

- To pass the exam, the score must be equal or superior to five. No average score is calculated with exam scores under five.

- In March, students will have a second chance to pass the exam of every assessment period through the ordinary calls.

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Assessment criteria: activities

- Every unit has a series of activities. Some of them are not mandatory, but it is strongly recommended to do them.

- In addition, in almost every unit there will be a mandatory Final Activity. This activity must be delivered on the date given by the teacher. Any activities delivered after this date may be penalised.

- Every activity will have a different weight in the final score. Sample scores are given in the following table:

Unit 2	Unit 3	Unit 4	Unit 5	Unit 6
25%	25%	15%	20%	15%

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Assesment criteria: activities

- The student activities must be original. In every activity, the student must include their initials and the current school year as follows:

```
Package com.da.jrgs2122.activities;
```

- The use of GitHub to store the activities is mandatory. The student must use the corporate account linked to *iesmarenostrum.com*, and the user name must also include initials and the current year. Every student should also add the teacher as collaborator in the Data Access repository (or repositories).

- **A non-original activty will imply to directly attend the ordinary call.**

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Assessment criteria: attendance

- Class attendance is mandatory in face-to-face teaching. A 15% of non-justified absence or 5 consecutive days of class absence will result in loosing oportunity to pass the module without taking the march ordinary call.

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Resources

- Software Tools: IntelliJ IDEA
- Bibliography: all necessary materials will be supplied via the moodle platform.
- Additional resources:

  Institut Obert de Catalunya: access a dades
  (in Catalan, which can be easily translated to Spanish/English using Google Chrome)