Escuela Técnica Superior de Ingeniería Informática
Departamento de Lenguajes y Sistemas Informáticos

RE Presentation
2016-2017

Software Engineering and Databases Group
Department of Computer Languages and Systems
University of Seville
September 2016

La traducción de este material docente ha sido financiada mediante la convocatoria 1.10B - Ayudas de innovación y mejora docente, convocatoria 2013-2014, modalidad B del II Plan Propio de Docencia de la Universidad de Sevilla. No ha habido financiación alguna para este proyecto de otros soportes.

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- Course learning objectives (I)
  - When passed, the student should be able to:
    - Understand the basics of **requirements engineering** and its relationship with the rest of software development.
    - **Interact** with **customers & users** in structured interviews and meetings.
    - Analyze **problem domains** and develop **glossaries of terms**.
    - Analyze **organizations** and model their **business processes**, their **positive and negative aspects** and their **business objectives**.

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- Course learning objectives (II)
  - When passed, the student should be able to:
    - Understand the different types of **requirements**, how to **write them** and their most usual attributes.
    - Develop complex **conceptual models** from requirements.
    - Understand and set **traceability** relationships between RE and other development **products**.

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- Course learning objectives (III)
  - When passed, the student should be able to:
    - Work in groups on a **project** to develop a complete **Requirements Specification**.
    - Verify the **quality** of a requirements specification.
    - Validate a requirements specification using user interface **prototypes**.
    - Develop acceptance **tests** from requirements.

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RE Presentation

- Module I: IISSI Revision
  - Basics of Software Engineering
    - Software project & products
    - Software lifecycles
- Module II: Requirements Engineering
  - Introduction to Requirements Engineering:
    - RE in the development process
    - RE process
    - Requirement types and attributes

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RE Presentation

- Module II: Requirements Engineering
  - Requirements Elicitation:
    - Problem domain: documentation and glossary
    - Customers & users business: business models
    - Customers & users needs
    - Interviews and meetings
    - User interface prototyping
  - Requirements Documentation:
    - Requirements as a solution to C&U needs
    - Writing system/software requirements

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- Module III: Requirements Analysis
  - Requirements Modeling (UML)
    - Data / Static Modeling:
      - Class diagrams revision
      - Advanced concepts in class diagrams
    - Functional and behavioral / dynamic model:
      - Statecharts
      - Sequence diagrams
      - System operations

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- Module IV: Advanced RE
  - Requirements Verification:
    - Requirements quality model
    - Requirements quality assessment
  - Requirements Validation:
    - User Interface prototyping
    - Acceptance tests from requirements
  - Requirements Management:
    - Requirements traceability
    - Change request management

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- Course project
  - Throughout the semester, a **project** worked out in **groups** must be developed:
    - Development of the initial stages of a software system «as real as possible»
      - System Requirements Document (SRD)
      - System Analysis Document (SAD)
  - Each group will have a **tutor** professor.
  - There will **two deliveries** during the semester, before the final delivery for evaluation.
  - The **tools** proposed for project management and version control **must** be used.

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- Tools for the semester project
  - All tools can be either used in the **cloud** or can be installed on the student's **laptop** computer.
    - **projETSII** (project management)
    - **Subversion** (version control)
    - **Signavio** (BPMN and UML)
    - **REM** (requirements management)
    - **Balsamiq** (user interface prototyping)
  - Equivalent tools can be used if **approved** by the project tutor.

RE Presentation

- Per-course / 1st call evaluation
  - **Theoretical** exam: 50%
  - **Passed project**:50%

  } ≥ 5 →**Passed**
  - If project is not passed:
    - Qualification = min((T+P)/2, 4.5)
  - If not passed, only the **passed parts are saved** for September and December calls.
  - **Nothing** is saved for next course.

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RE Presentation

- Per-course / 1st call evaluation
  - Students with an A qualification (Sobresaliente) in per-course evaluation can apply for **honors** (Matrícula de Honor) developing an extra work.

Only per-course, A-grade students can apply for honors!

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- Ordinary evaluation – Sept. & Dec. calls
  - Same criteria as per course.
  - Students must sit for all **failed parts**.
  - Not sitting for a **failed part** implies a **0** (zero).
  - Sitting for a passed part implies **renunciation** of the previously obtained grade.

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- Comments, suggestions, ...