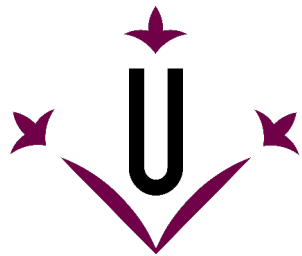


# **ICT Project: Development and Implementation**

## **IT Project Management**



**Universitat de Lleida**

**Master's Degree in Informatics Engineering**

**2022 / 2023**

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# Subjects

**ICT Project: Development and Implementation**

9 ECTS

**IT Project Management**

7.5 ECTS

# Professors

## ICT Project: Development and Implementation

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## IT Project Management

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# Contents.

## ICT Project: Development and Implementation

### **Block I. Methodology of User Centred Design from an early stage**

1. Technical Inquiry Focus Group

### **Block II. Android Application Development**

1. Introduction to Android
2. Developing apps
3. Intents, services and multitasking
4. Persistent Data
5. Sharing information
6. Other aspects

### **Block III. Web Services**

1. Service-Oriented architectures (SOA)

### **Block IV. Integration of Android with Web Services**

1. Integration of Webservices in Android

# Contents.

## IT Project Management

### **Block I. Before starting a project**

1. Idea Generation
2. Economic viability. Main KPI's

### **Block II. Project Management**

1. Models and Methodologies
2. Scrum Methodology

### **Block III. Hands on**

1. Real software development together with ICTPD managed with Scrum

# Methodology.

## Project Based Learning (PBL)

- The students acquire knowledge and skills by exploring and investigating real-world problems and challenges.
- It is an effective and enjoyable way to learn and develop ... a deeper learning.

# Methodology.

## The project

- Groups of students will develop a real ICT project
  - From the proposal of the idea to the final deployment and distribution.
  - The student will become the main protagonist of the learning, being responsible for deciding the final product and the knowledge/skills needed to achieve the project objectives.



# Methodology.

## The project

- Project Objectives (Innovation + Management + Development):
  - **Final product:** the application technologically feasible.
  - **Economic viability:** analysis of the economic sense and the market to which the application will be focused on.
  - **Project Management:** go through all the roles in an ICT project.
  - To apply **Agile** software development methodology (Scrum).

# Methodology.

## Development steps

- **Workshop of Ideas:** Each student proposes an initial idea for a project that will be technologically and economically viable. The result will be the selection of the projects to be developed.
- **Focus Group:** Each student presents her/his project and discuss together about her/his perceptions, opinions, beliefs, and attitudes towards the application.
- **Project Design:** The team should analyze and design the project taking in consideration its requirements.
- **Sprint Deliveries:** The team develop one part of the project (UI, database, app, web-services) including its integration, tests, end-user documentation, and packing.
- **App Deployment:** Step which includes the server installation/configuration and the final application deployment/publication in the Android Play market.
- **Project Final Presentation:** Each group should present the final application.

# Evaluation

**Group Qualification Result: 60% of final mark.**

Evaluation Point	Percentage	Description
Sprint 1	12,5%	<ul style="list-style-type: none"> <li>- Project Management Evaluation.</li> <li>- “Sprint Planning” and “Sprint Review” evaluation.</li> <li>- Implemented code and features general evaluation.</li> </ul>
Sprint 2	12,5%	<ul style="list-style-type: none"> <li>- Project Management Evaluation.</li> <li>- “Sprint Planning” and “Sprint Review” evaluation.</li> <li>- Implemented code and features general evaluation.</li> </ul>
Sprint 3	12,5%	<ul style="list-style-type: none"> <li>- Project Management Evaluation.</li> <li>- “Sprint Planning” and “Sprint Review” evaluation.</li> <li>- Implemented code and features general evaluation.</li> </ul>
Final Presentation	22,5%	<ul style="list-style-type: none"> <li>- Evaluation of student’s oral and presentation skills.</li> <li>- Commercial presentation of the project.</li> <li>- Presentation quality in terms of coherence and content.</li> </ul>

# Evaluation

**Individual Result: 40% of the final remark.**

Evaluation Point	Percentage	Description
Workshop	10%	<ul style="list-style-type: none"> <li>- Workshop attendance;</li> <li>- Participation in the workshop by elaborating ideas.</li> </ul>
Peer Review	10%	<ul style="list-style-type: none"> <li>- Evaluation of the peer review.</li> <li>- Evaluation of problems found/corrected.</li> <li>- Evaluation of conflicts found/correct.</li> </ul>
Implication/Participation in the project.	10%	Active participation in the project. (measured by commits and resolved tasks).
Technical Evaluation	10%	Evaluation of the project management, cost assessment and product development concepts that should be learn during the project.

# First activity. Ideas workshop

- **Short presentation in English (5-10 minutes)**
  - Describe the application main idea
  - Economic & technological viability
  - You must promote/sell your project/idea
  - Done individually
- **Peer-to-peer Evaluation**
  - Model: Business angels
  - Virtual money (100k€) to distribute into 3 ideas / projects
  - The best ideas (with more money invested) will be selected as projects to be developed
- **Evaluation**
  - Workshop Individual mark. 1 point of the final grade:

0	You are not involved in the activity..
0.5	You are involved in the activity.
1	Your presentation is correct, and your idea is selected for the development.

# Questions?