




JAC

JOBS ACADEMY

FONDAZIONE



About us

Jobs Academy is an ITS, Higher Technical Institute, a vocational alternative to university courses.

JAC trains highly skilled technicians in strategic **technological areas**, thanks to a partnership with **over 2500 companies**, who work alongside JAC every day developing and transferring skills in our courses.

The mission at Jobs Academy is to **foster and accompany the growth of each individual**, putting their personality and attitudes at the centre of every educational-organizational choice.

“OUR WORK ENDS WHEN YOURS BEGINS” (Founder, Daniele Nembrini)

Software Area

Web Development ▼

Cloud Development ▼

AI-Integrated Web Development ▼

IT systems management ▼

Cyber Security ▼

Business Software Consultancy ▼

Technical Area

Mechatronics and Integrated Systems 4.0 ▼

Design experience & Digital communication ▼

Design and Materials Technology ▼

Design and 3D Modelling ▼

Mechatronics and Industrial Automation 4.0 ▼

Design Area

Digital Painting and Comics

Business Area

Finance, Banking and Insurance ✓

Economics and Management Control ✓

HR Management ✓

Green Area

Building And Energy District Management ✓

Sustainable construction ✓

Energy and innovation ✓

Marketing Area

International Marketing Management

Customer Management

Marketing for Art and Cultural Heritage

Store Management

International Tourism & Digital marketing strategies

Digital Marketing & social media

Marketing & Sales



PLC applications in Mechatronics Start-ups

**A new way to inspire ITS students to get into green start-up's universe
with the most requested hard-skill in mechatronics field**

Project Goals

- Design and develop a concept of a PLC-based project
- Include innovative ideas and use-cases
- Use new, smart and sustainable technological components to automate the process
- Safety logics to run the process as smoothly as possible
- Try to contribute to environmental sustainability, ensuring a positive impact on the planet
- Learn how to do SWOT analysis and Market Researches
- Provide a 4.0 and IoT interconnection and infrastructure

Micro-Course

The micro-course was taught by a Teacher that works specifically with 4.0 technologies to improve:

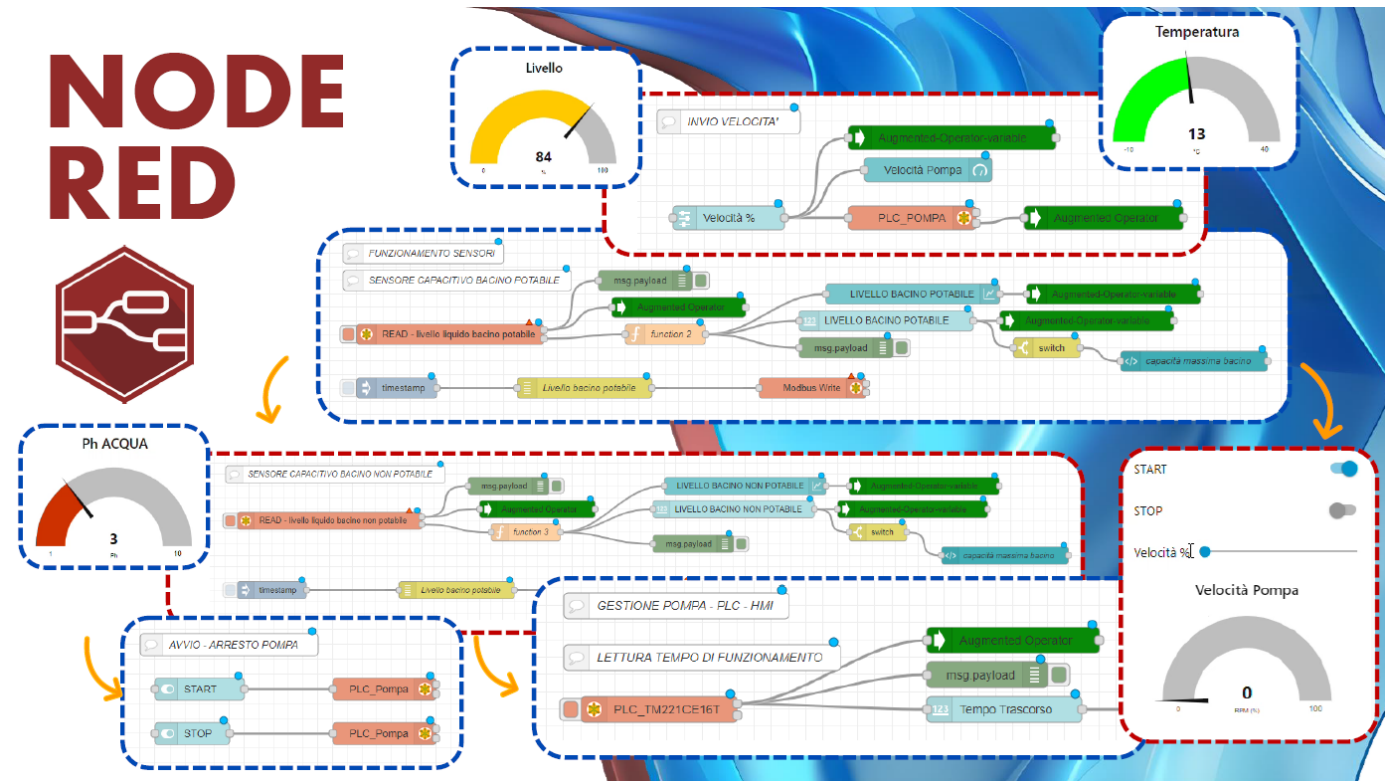
- Knowledge of new-technology sensors
- Integration with 4.0 and IoT technologies
- Creating infrastructures to connect new and old machinery



Challenges

Students had to face many challenges, including (but not limited to):

- Choosing an idea that would be economically sustainable
- Study what the demand of the product would be
- Study potential application in different fields
- Search for Key Competitors and define how to differentiate
- Implement 4.0 and IoT technologies



Project Ideas and Required Skills

Each project's aim was to develop a **start-up** idea that would be created using technologies and component provided by Schneider Electric.

To create those projects, students had to apply a wide range of hard and soft skills acquired during 2 years of ITS educations.

Some of them are:

- 3D Modelling with SolidWorks or CREO
- Presentation design
- Market Research
- Team Work and communication



Hard Skills Developed through Micro-Courses

This has been an opportunity for the students to apply what they have learnt during the micro-course.

Especially:

- Advanced PLC programming with specific structures
- IoT implementations, as well as 4.0 technologies
- Safety logics
- New Sensors and component usage and integration

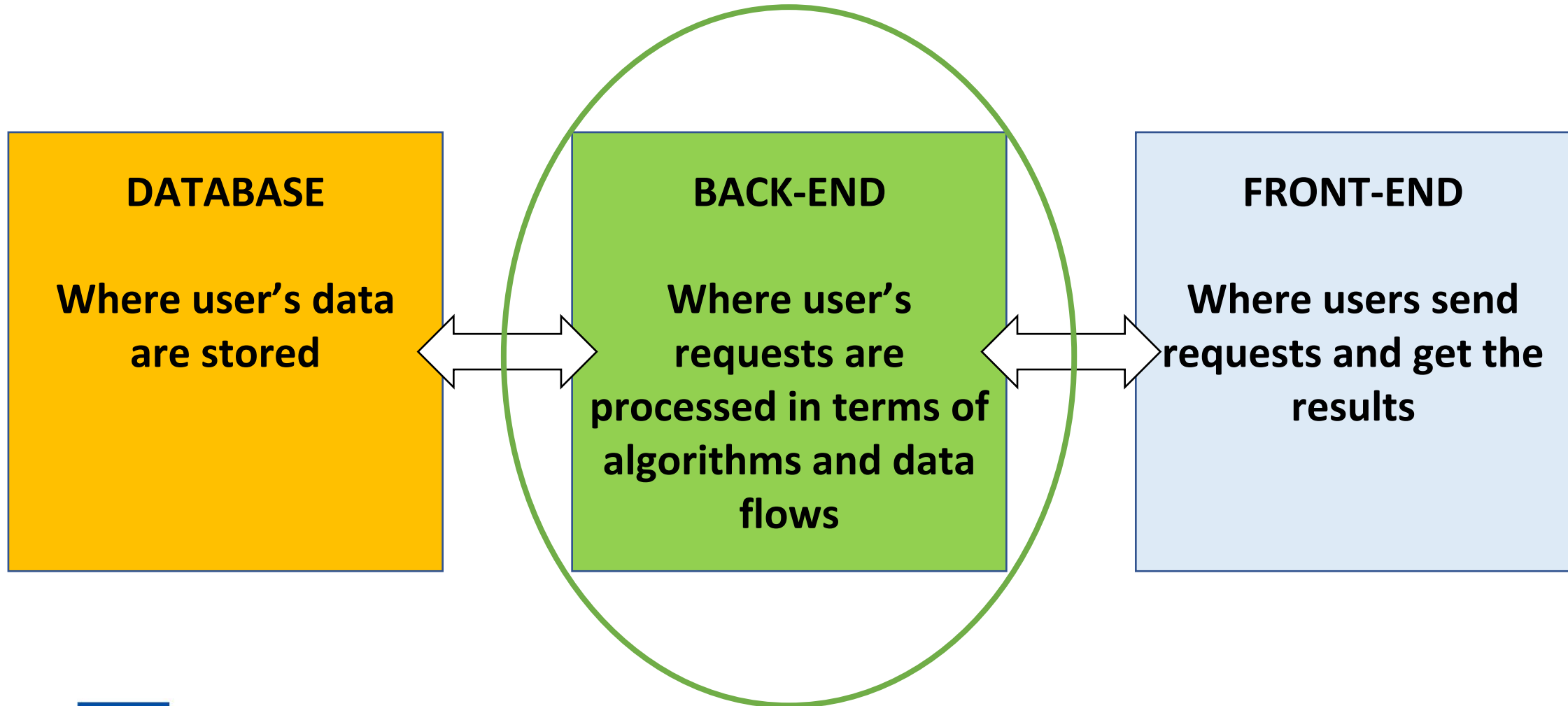
The image shows a screenshot of a PLC ladder logic program. At the top, a callout box highlights 'DEFINIZIONE PARAMETRO ANALISI' with a dropdown menu for 'LD Rung0' and 'Corpo rung'. A central callout box points to 'Assegnazione dei PARAMETRI DI ANALISI dell'acqua'. Below this, a list of parameters is shown: 1 - QUALITA', 2 - CONTROLLO LIVELLI, 3 - CONTROLLO TEMPERATURA, and 4 - LOGICA. The main program area shows three rungs: 'CONTROLLO LIVELLO BACINO', 'CONTROLLO LIVELLO AP', and 'CONTROLLO LIVELLO ANP'. A callout box at the bottom left points to these rungs, stating 'Integrazione dei dati rilevati dai SENSORI CAPACITIVI per il livello dell'acqua nei 3 serbatoi'. The Schneider logo is visible in the bottom right corner of the screenshot.

La nostra
AUTOMAZIONE

Project: JAVASCRIPT WEB BACK-END APPLICATION - OUTLINE

- Area: ICT – Software Development
- Target students: Web Development class II year of Jobs Academy
- Problem: the gap between the needs of modern software companies and the skills of junior web developers
 - JavaScript is even more popular but often not emphasized in ‘traditional’ ICT & web studies, especially for the back-end of web systems
- Goals: acquiring knowledge & skills on developing back-end of Web systems with the JavaScript language

WEB SYSTEMS: BACK VS FRONT



Project: JAVASCRIPT WEB BACK-END APPLICATION - WHAT

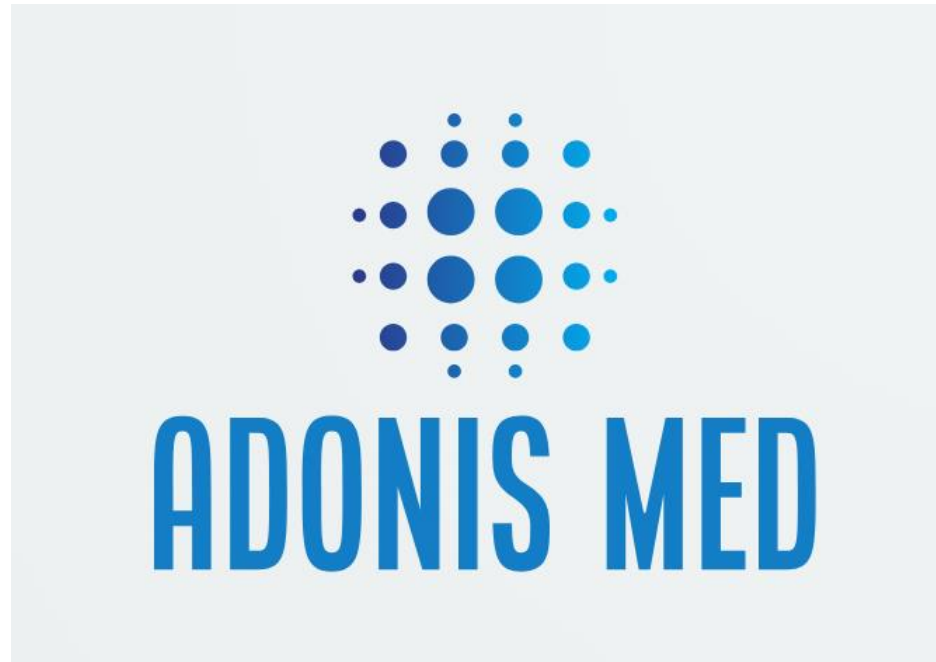
- 27 students, subdivided in groups
- Each group proposed & developed their proper Web project
- A local Italian SME was involved for the skills about JavaScript
 - Giacomo Bello (<https://www.belloinfo.it/>)
 - He was involved as teacher for all the phases
- Supervision by the manager of Web Development course
 - Diego Bernini (<https://www.linkedin.com/in/diegobernini/>)

Project: JAVASCRIPT WEB BACK-END APPLICATION - HOW

- PHASE 1: foundational course (28 hours) about the basic of JavaScript for back-ends and how to conduct the project
- PHASE 2: each group proposed and developed a basic version of the project
- PHASE 3: consolidation of the basic version resulting from PHASE 2



ADONIS MED



A Web system for doctors

- 1. Managing patients**
- 2. Manage bookings**
- 3. Managing group of doctors**



DELIZIOSE RICERCHE

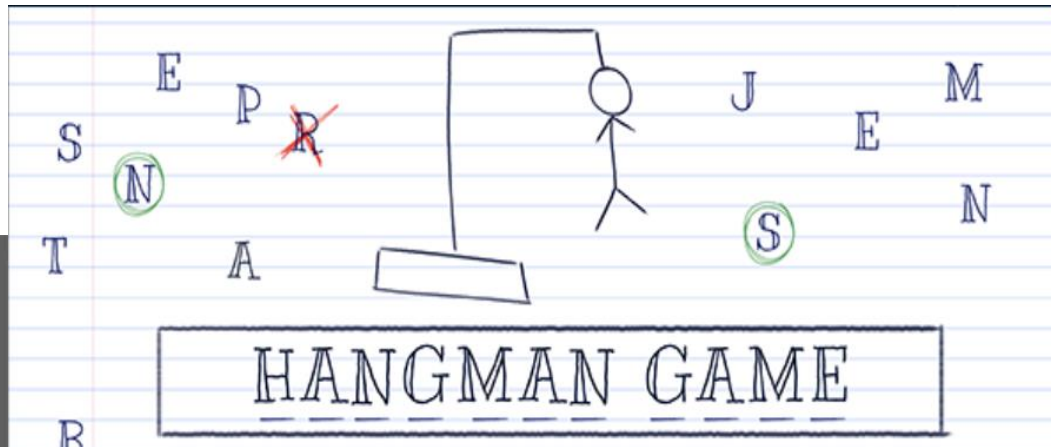
Sapore, creatività e organizzazione a portata di clic.

A Web system for collecting cooking recipes

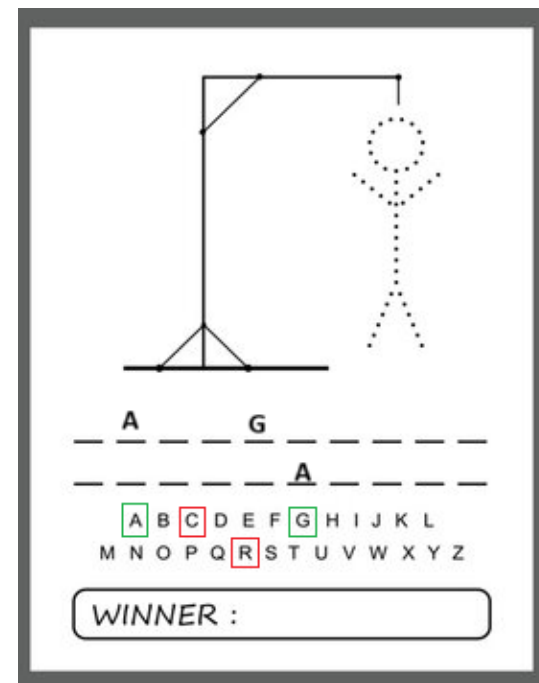
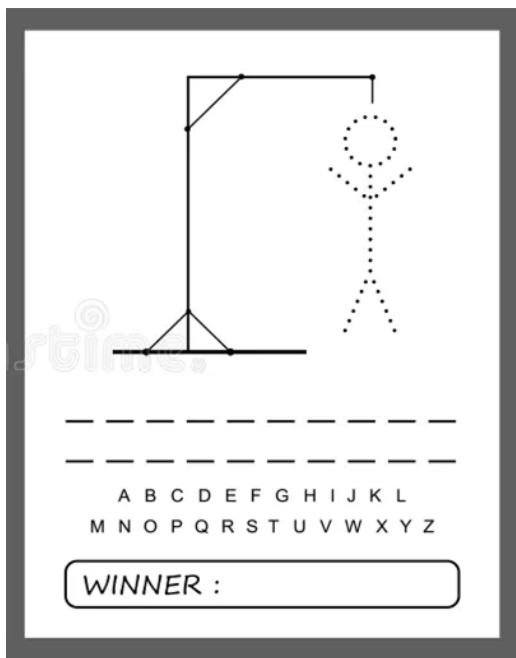
- 1. Saving user recipes**
- 2. Searching the recipes of the community**



HANGMAN GAME



A Web version of the hangman game



Lessons learned

- Role of teacher-mentor from the local company is crucial
- Importance of an authentic project: a project that has been proposed by the students, not imposed by the teacher

Thank you for your attention!



VETPROFIT



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