

# Project and Exam

Autonomous Software Agents

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# Project

- Group: 2 students (strongly recommended)
- Objective: Develop autonomous software agents for the Deliveroo.js game
  - Check the Deliveroo repository and dedicated lectures in moodle

- Javascript code

- Single agent (Agent A)
  - Team of two coordinated agents (Agent B and Agent C)

- Report

- Explain what you have done and how (max 10 pages – pdf file)
  - Use whatever you think it is important to describe your work (diagrams, piece of code, data, experiments, tests, etc)

- Validation and test

- Use scenarios of Challenge 1 and Challenge 2 to validate and test your software

# Agent A – basic requirements

- Agent A should be able to collect packages and deliver them into the delivery zones
- Its basic requirements are<sup>\*</sup>
  - Sense the environment
  - Revise Beliefs
  - Revise Intentions
  - Elaborate plans using PDDL-based planner
- Validate and test your Agent A in the four scenarios of Challenge 1<sup>\*</sup>

<sup>\*</sup> Always refer to slides & videos of lectures and examples in the Deliveroo repository

# Team of coordinated agents - Agent B and C

- Develop a team of two coordinated agents
- Basic requirements for the team<sup>\*</sup>
  - Explicit a game strategy and coordination mechanisms (to be described in the report)
  - Agent B and C should be able to:
    - Exchange information about the environment (e.g., packages and other agents' position)
    - Exchange information about their mental states to coordinate their activities
    - (advanced<sup>\*\*</sup>) Exchange information about their mental states to elaborate multi-agent plans
- Validate and test your team in the three scenarios of Challenge 2<sup>\*</sup>

<sup>\*</sup> Always refer to slides & videos of lectures and examples in the Deliveroo repository

<sup>\*\*</sup> Not mandatory, but good for the evaluation 😊

# Exam – registration and deadlines

- Register to the exam in Esse3 (14/06 - 11/07 – 07/09 ...)
  - Submit your project using the link you will find in moodle
    - Report + link to your project repository
  - Deadlines for the project submission

Exam	Deadline
14/06	09/06
11/07	07/07
07/09	03/09

Important: The pdf file must include information about all members of the group, namely: Name, Surname, email, Matricola.

# Exam - procedure

- All groups that have submitted their project will receive an email for an appointment to present their project
  - All presentations will be in presence the date of the exam
- The group will have 10 minutes to present the project
  - It is strongly recommends to use slides
- It will follow 20 minutes of Q/A about the project
- The evaluation will be as it follows

	Evaluation criteria	Weight
Agent A	Requirements implementation and quality of the code	40%
Agent B-C	Requirements implementation and quality of the code	40%
Presentation	Clarity and quality of the report and oral presentation	20%