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# Final evaluation project

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# Project

- Language: English, Spanish or Basque
- Incremental project
- Deadline: January 6
- **DO NOT CHEAT**

# Work requirements

- Minimum requirement: Double Q-Learning and Dueling Network in Deep Q-Network
  - Maximum mark: 6
  - If it is acceptable, minimum mark: 4.5
- Next requirement: Prioritized Experience Replay
  - Maximum mark 8
- Next requirement: Put all together
  - Maximum mark 9
- Last requirement: Free (new environment, new method...)
  - Maximum mark 10

# Hyperparameters

- Prioritized experience replay
  - $\kappa$ : 0.6
  - $\beta$ : 0.4

# Minimum requirement: Double Q-Learning and Dueling Network

- Code: 50%
  - 2 colab files: One for Double Q-Learning and one for Dueling Network
- Documentation: 50%
  - Colab or pdf (English, Spanish or Basque)
  - Introduce Deep Q-Network method
  - Explain the Double Q-Learning **OR** Dueling Network methods
    - Although both methods has to be implemented, only one of them must be explained
  - Indicate which parts of the code are updated from Deep Q-Network code
    - You can get this code from eGela
  - Compare obtained results with Deep Q-Network, briefly analyze the comparison

# Prioritized Experience Replay

- Code: 75%
  - Colab file
  - Importance sampling is optional. But you will get better mark if you use it
- Documentation: 25%
  - Colab or pdf (English, Spanish or Basque)
  - Explain briefly Prioritized Experience Replay
  - Indicate which parts of the code are updated from Deep Q-Network code
  - Compare obtained results with Deep Q-Network, briefly analyze the comparison

# Put all together

- Code: 75%
  - Colab file
- Documentation: 25%
  - Colab or pdf (English, Spanish or Basque)
  - Compare obtained results with the results obtained in the previous steps
    - Deep Q-Network
    - Dueling Network
    - Double Q-Learning
    - Prioritized Experience Replay

# Last requirement

- Code:
  - Colab or .py files
- Documentation
  - Colab or pdf (English, Spanish or Basque)
  - Clearly explain what you have done