

Extra project (4 points)
Due on December 5 11:59pm (Hard deadline)

In this project, you will do code implementation for logistic regression for the iris problem. Then, you can understand how the python library works in machine learning. From this extra project, you will be able to get some extra credits only for the midterm and final, but not attendance nor participation.

Task 1 – Complete coding the subroutines and perform LR training successfully without error messages (2 points)

- Please load the file, ‘Extra_project_LR.ipynb’
- Complete coding with vectorized implementation (No ‘for’ loop)
- Make sure of convergence; cost decreases during iteration of training.
- Try different learning rates
- Make figures of evolution of the cost function

Task 2 – Compare your results with those from LR in the sklearn libraries (2 points)

- Try different C values
- Make sure that your prediction matches sklearn results.

Deliverables:

- Submit your completed Python script .ipynb file and your discussion with Markdown to CANVAS

CANVAS Submission

- Submit your files to CANVAS
 - **Name files → your Lastname_Firstname**