**How to Run the Project**

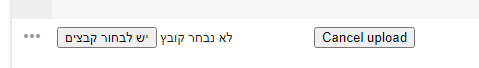
This project consists of 2 notebooks: one notebook where all the training and various tests were conducted, including various comments and prints, and another notebook for you to examine our models in an organized manner without prints and other potentially disruptive elements.

Link to the testing notebook: [Click Here](https://colab.research.google.com/drive/1f-dhwo5NC6pOjrbadP_USBjLWpEWzBIo?usp=sharing) - This is the organized notebook for testing the sections.  
Link to the training notebook: [Click Here](https://colab.research.google.com/drive/1EBlffIGYor2tqFTJKeLMt2EcM6WPouA6?usp=sharing) - Here you can find all the prints and previous experiments.

To run the notebook, execute the cells one after the other, in the following order:

Imports -> Load Dataset (two cells) -> Loading Weights

Now you can start running the different sections. For your convenience, we've provided an option to upload an image at the bottom of the code cell. You need to run the cell to upload an image for testing. If you want to test multiple images, you'll need to run the specific cell again to upload a new image.



The cells in the code are the sections that need to be executed one after the other. For your convenience, we've created a map of the relevant cells for each section.

The order of sections:

* Section A - Question 1
  + Subsection A1 - Relevant cell: "Question 1.a - Classification Healthy / Sick”
  + Subsection A2 - Relevant cell: "Question 1.b - Classification healthy / viral pneumonia / bacterial pneumonia”
* Section B - Question 2 - K-Nearest Neighbors (KNN)
  + Part 1 - Relevant cell: "KNN for 1.a" (for KNN with 2 classes - healthy/sick)
  + Part 2 - Relevant cell: "KNN for 1.b" (for KNN with 3 classes - healthy/viral pneumonia/bacterial pneumonia)
* Section D - Question 4 - Anomaly Detection
  + Relevant cell: "Question 4 - Anomaly Detection"