INTRODUCTION TO DIGITAL IMAGE PROCESSING

Submission Instructions

The following instructions are mandatory and will be checked and graded by the course staff. Failing to follow these instructions **will** reduce points from you grade.

The assignment is to be done in Python and submitted to the course moodle page in the form of a *.zip (**not RAR**) containing ***Assignment?.ipynb*** -the Colab notebook (where '?' represents the exercise number) and PDF file - convert the IPYNB to PDF (you can use this website for example). **Both the PDF and ZIP file names should be the initials and ID of both of the team members ex. 'TB-1234567_RS-7654321.pdf' and 'TB-1234567_RS-7654321.zip', respectively.**

Academic integrity: the originality of the submitted exercises **will be checked.**

Document Instructions

- Only one of the team members should submit the file
- The report should be written in Hebrew or English.
- Each section should have the relevant title and number as is in this document.
- Every image should be accompanied with the relevant explanation.
- In every question where you are asked to submit a function, add short explanation.
- The displayed images should be large enough for us to see them.
- The document should be organized and readable.

Code Instructions

- Avoid using built-in Python functions unless clearly stated otherwise. However, feel free to compare your own functions to the built-in functions (and explain).
- The first line of ***Assignment?.ipynb*** should print the full names and IDs of all team members. Use Python's *print()* function.

- Write modular functions for the subsections and reuse those functions throughout your code whenever possible.
- Use meaningful names for all functions and variables.
- Try to avoid overriding variables.
- Write comments for every line of code that is not completely self explanatory.
- For every image displayed give a meaningful title using Python's *matplotlib.pyplot.title()* function.
- Use subplots whenever possible.
- All paths to files should be relative paths. If you are using subfolders use Python's *os.path.join()* function to construct the path to the file. Do not hard code '/' or '\' in the paths.
- To load images from your drive into the notebook, use one of the following methods:
    1. Define a variable called `drive_path` and use it each time you load an image: `Image.open(drive_path + "/image")`
    2. Use `os.chdir(drive_path)` once at the beginning, and then use `Image.open("image")` each time you open an image.
- The code should run completely without errors. A project with errors **will not be checked!**