

# Assembly Homework 6

Hamid Mohammadi

Your task is to write an image blending function in assembly and interface it with a C program.

1. Unzip the file **assembly-hw6.zip**.
2. Understand how **animator.cpp** works:
  - a. Open the file **animator.cpp**. Uncomment the **blend** function defined on lines 25- and then uncomment the **blend function call** at line 67. Save the file.
  - b. Build the project using the make command and run **./animator**
3. Change **animator.cpp** to call **your assembly** instead of the **blend** function you just uncommented.
  - a. de-comment the blend function at line 25 and uncomment the #include "blender.h" at line 4. This will enable **animator.cpp** to call your assembly function in "**blender.asm**" as the **blend function**.
4. Implement the **blend function** in **blender.asm**:
  - a. See how the **blend function** is **implemented** in **animator.cpp** file at line 25.
  - b. Observe how your **blend function** is **called** and what are the **arguments** in **animator.cpp**, line 67.
  - c. Implement a similar function in the **blender.asm** file in assembly language.
5. Test your asm blend function:
  - a. Use the make command to build the project and check whether it is working like the blend function implemented in animator.cpp.

## Tips:

- The input arrays to the blend function are 3-dimensional arrays of size (500, 750, 3) where 500 is the width of the input image, 750 is the height of the input image, and 3 is the depth of the input image corresponding to the red, green and blue channels.
- Please upload all files as a zip archive on [courses.kntu.ac.ir](https://courses.kntu.ac.ir).