**Task: 29th September 2025**

1. Load any image.
2. Convert to grayscale or RGB.
3. Store in a CuPy matrix.
4. Write a **CUDA kernel** that:
   * Uses **2D thread grids** (blockIdx.x, blockIdx.y, threadIdx.x, threadIdx.y).
   * Reduce the image size by 50%.
5. Save and display the processed image.

✅ Focus: Applying **2D grids/blocks**, interpolation, and more realistic GPU programming.  
✅ More demanding, but great for strong students.