**Lab 6**

**Face Profiling (with proper measurements of each feature)**

**Explanation:**

This code implements a Simple Face Profiler using OpenCV in Python. It detects facial features (face, eyes, and smile) and analyzes personality traits based on facial proportions. The SimpleFaceProfiler class initializes Haar cascades for detecting faces, eyes, and smiles. The detect\_features method processes an image by converting it to grayscale, detecting the largest face, and identifying eyes and smiles within the face region. The extracted facial features, such as face width-height ratio, eye spacing ratio, and smile width ratio, are calculated and stored. The analyze\_personality method maps these ratios to predefined personality traits using threshold values. The process\_image method handles image loading, resizing, and processing, while display\_results shows the analyzed image with annotations and prints personality insights. The script is executed via the command line, where the user provides an image path using --image, and the detected results are saved and displayed. This system effectively provides a basic facial analysis based on proportions, offering insights into potential personality characteristics.

**Output:**

