Here is a report for forthcoming steps for this project.

Color Distribution Analysis: Utilizing ImageJ, I will open each image and generate both RGB and grayscale histograms. My focus will be on analyzing color distribution patterns, specifically in regions containing printed text. I aim to identify the predominant color channels associated with printed text.

Automated Printed Text Removal: Considering various techniques such as thresholding, color-based segmentation, and frequency domain filtering, I will explore automated methods for removing printed text. The effectiveness of each method will be assessed to determine the most suitable approach.

Automated Instructor's Marks Removal: If required, I will explore techniques like color segmentation or specific color thresholding for the removal of instructor’s marks. Accuracy assessment will be conducted on sample images, and necessary refinements will be made to ensure optimal results.

Handwriting Extraction: Once the printed text and instructor's marks are successfully removed, my next step is to develop a method for extracting handwriting. This will involve the application of morphological operations, edge detection, or other suitable techniques. I will test and refine this extraction method on a subset of images to guarantee accurate results.

Image Cropping and Conversion: To focus on relevant content, I will devise a method to crop the extracted handwriting. Subsequently, I will convert the cropped image to a binary format for further analysis and save the resulting binary images.

Brightness/Contrast Adjustment: Before converting the image to binary, I will ensure optimal visibility by adjusting brightness and contrast as needed. I plan to explore ImageJ's auto-contrast, histogram matching, and other relevant tools to achieve the desired enhancements for each image.