# Project: Sets

# Results:

## Figure():

Our program shows a figure for each image which is divided into a 2x2 subplot. In position 1, we display the original image. In subplot 2, we display the image of the board after performing morphology on the image to separate out the individual cards which then helps us isolate them to perform functions such as counting the number of shapes, the color of the card, the pattern on the card and the shape on the card. Subplot 3 shows the individual cards that were separated from the morphological operation. Subplot 4 shows the cropped version of the card one at a time. This was cropped using the convex hull points received from the morphology image in subplot 3, from which the min row and column and the max row and column was found and using these 4 numbers, cropped.

# Graphical user interface, application Description automatically generated

## Console Log:

There is also information displayed on the console regarding each card as we iterate on the list of separated cards from the morphology operations. Each row in the table printed in the console shows the card number, the color of that card, the number of shapes on that card and the shading on that card.

Text

Description automatically generated

# Problems

Currently, we are having a few inaccurate results with recognizing the shape on the card. The diamonds and the squiggle are reported accurately but on a few runs, the Oval shapes are being reported as squiggles as well.