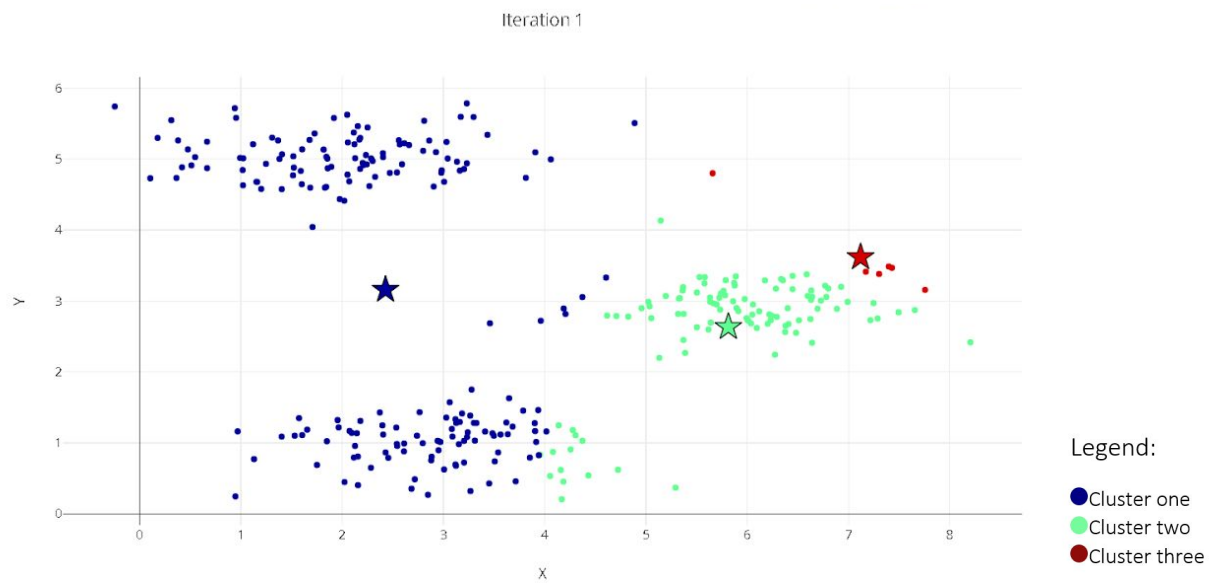


Arvin S. Arbuis
Trisha Nicole B. Butas
Mae Celine C. Erasmo

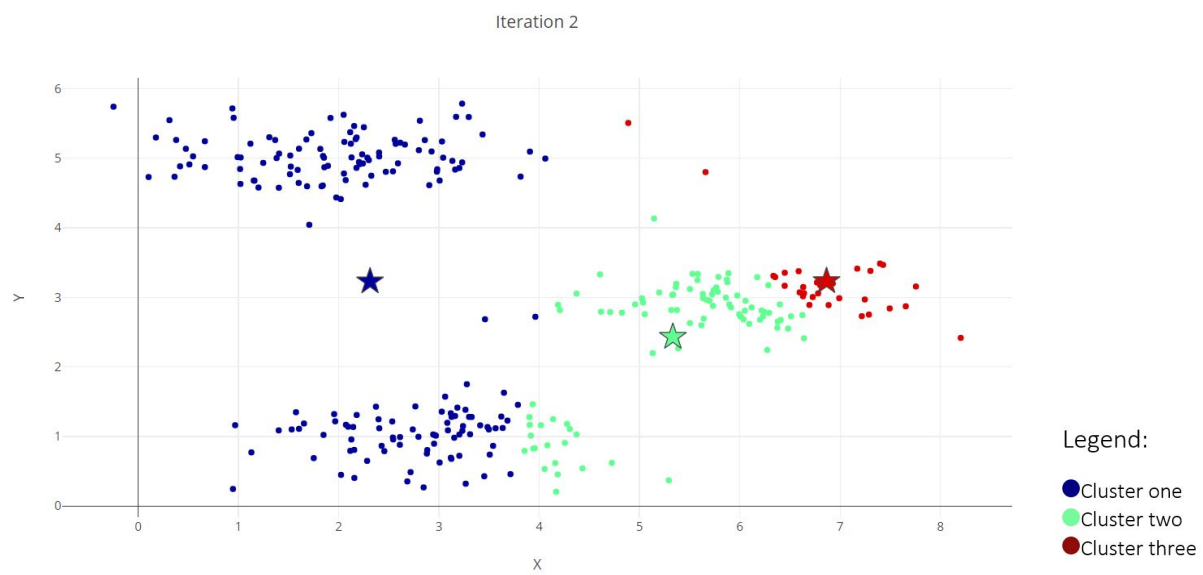
I. K-Means Scatter Plot

Iteration 1



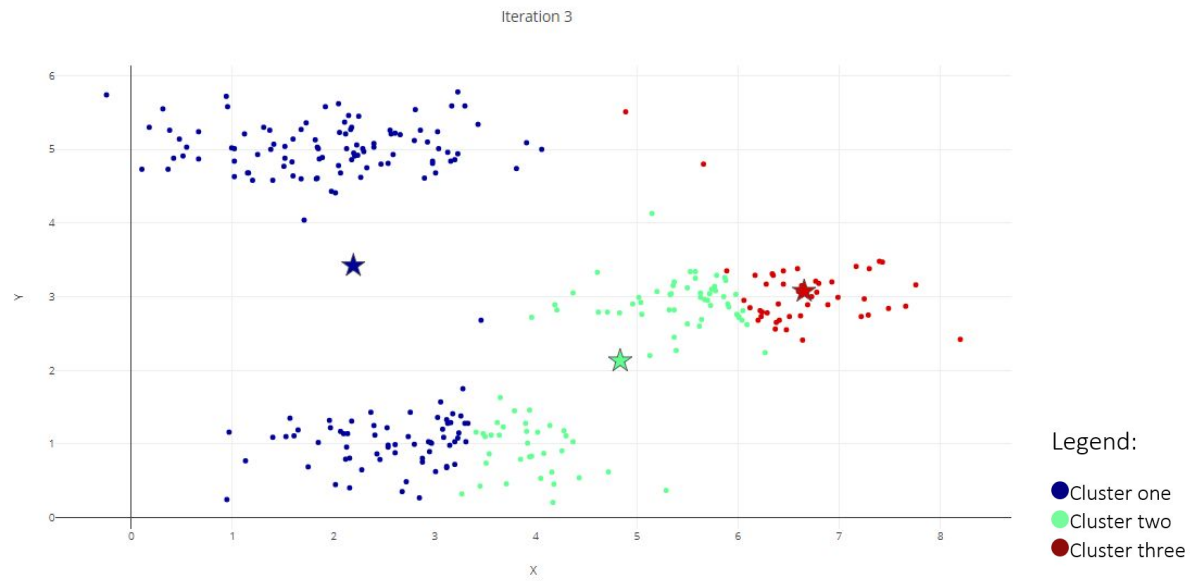
J = 1.906512

Iteration 2



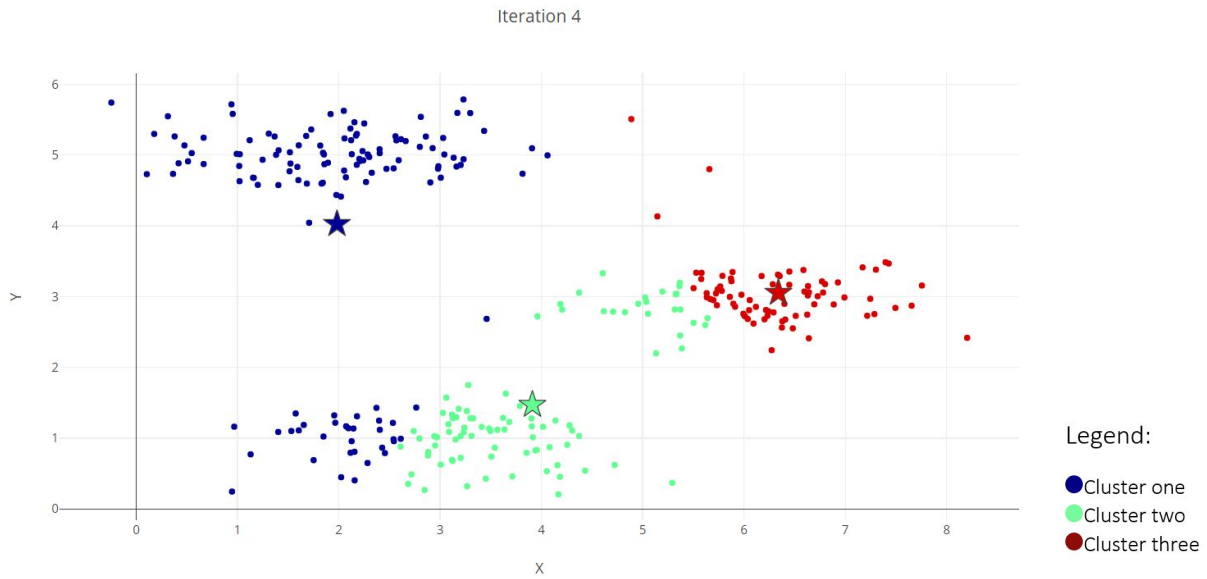
J = 1.701554

Iteration 3



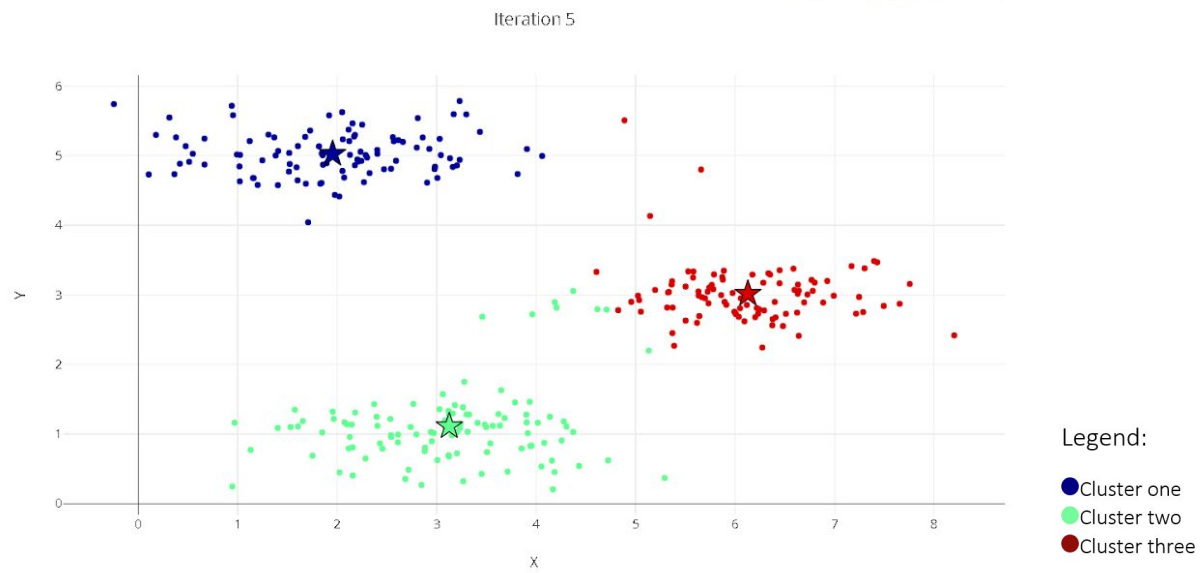
J = 1.654304

Iteration 4



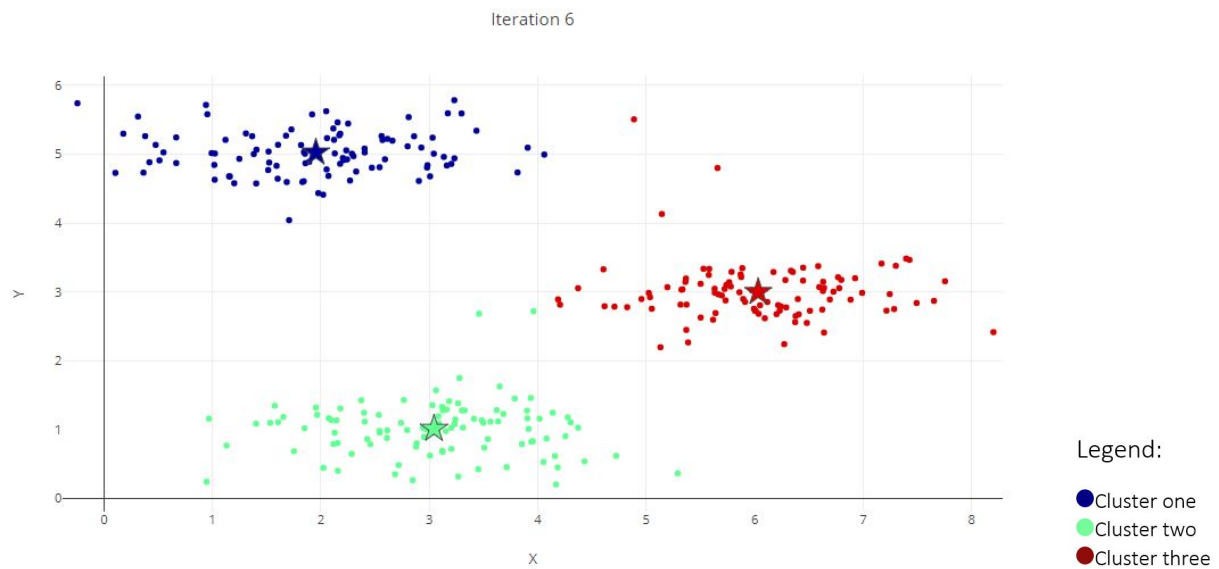
J = 1.540300

Iteration 5



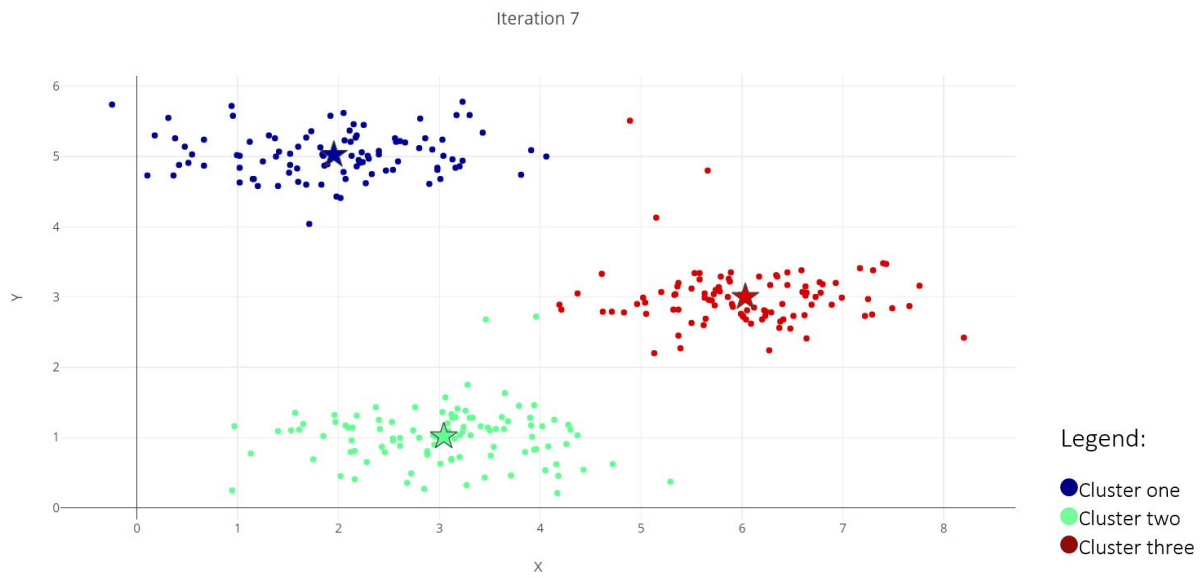
J = 1.100611

Iteration 6



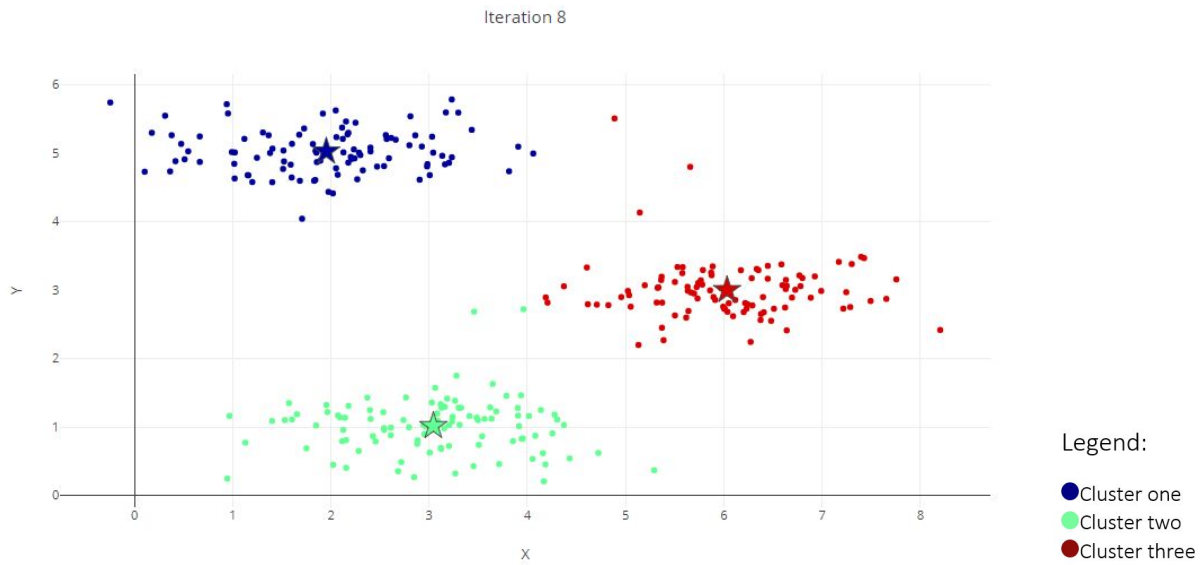
J = 0.801696

Iteration 7



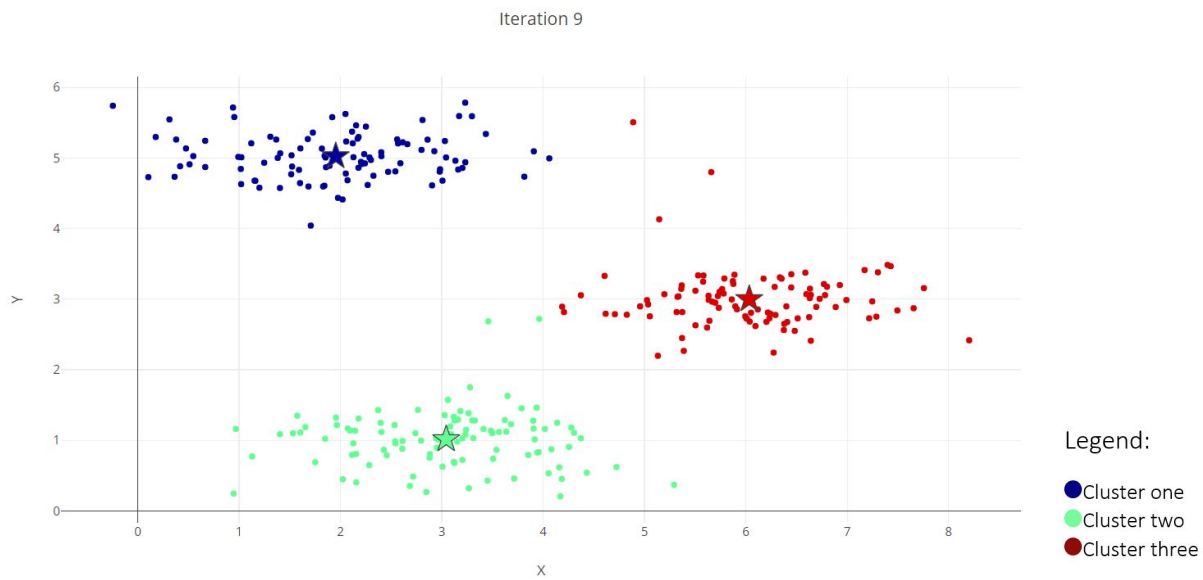
J = 0.796849

Iteration 8



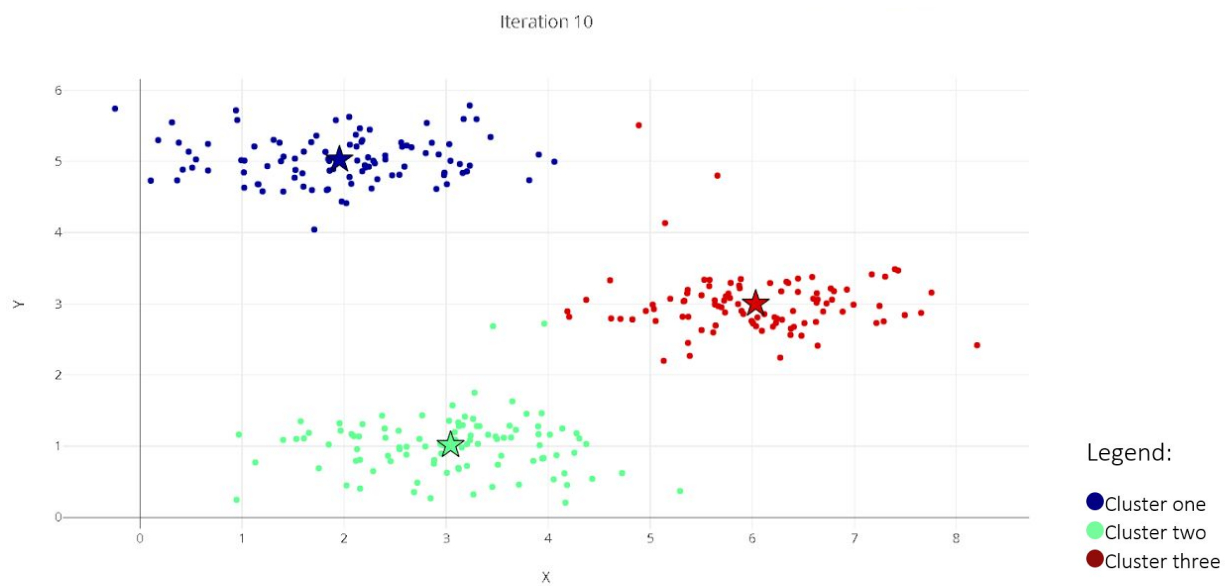
J = 0.796833

Iteration 9



J = 0.796832

Iteration 10



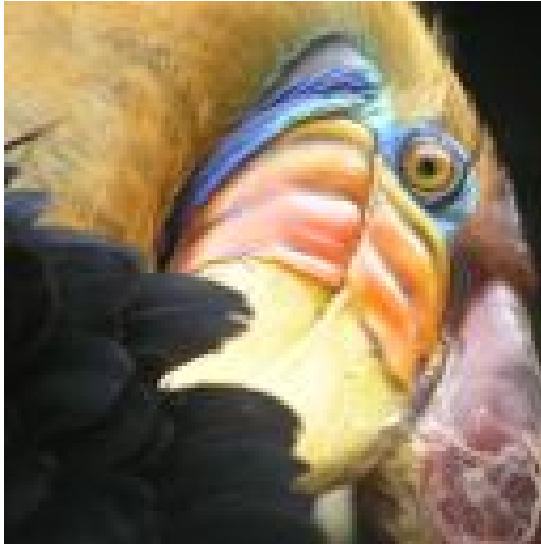
J = 0.796832

Observation:

- The cluster movements are evident and differences in their cost are high on the first half of the iterations.

- In the last half of the iterations, the centroids are already near their optimal positions, thus, the differences in their costs are minimal.

II. Image Compression



Uncompressed Image



Compressed Image



Uncompressed Celine



Compressed Celine



Uncompressed Arvin & cat



Compressed Arvin & cat



Uncompressed Trisha



Compressed Trisha

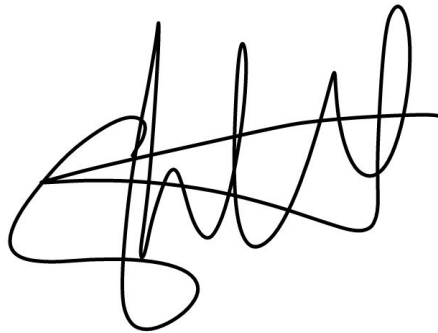
III. Contribution

All of us contributed in the development (logic and implementation) of the project, although we coded on one laptop (Butas's laptop).

Members:

A stylized, cursive handwritten signature in black ink. The signature features a large, sweeping loop at the top, followed by several smaller, interconnected loops and a long, horizontal stroke extending to the right.

Arvin S. Arbuis

A handwritten signature in black ink. It consists of a series of sharp, vertical strokes and loops, with a prominent, large loop on the left side and a smaller loop on the right.

Trisha Nicole B. Butas

A handwritten signature in black ink. It features a large, sweeping loop on the left side, followed by a series of smaller, interconnected loops and a long, horizontal stroke extending to the right.

Mae Celine C. Erasmo