Group 2

2/04/20

**CECS 229 Lab 2 Report**

The Euclidean algorithm is a fast and efficient method for trying to compute the greatest common divisor between two natural numbers, **a** and **b**. The algorithm is based on the idea that the gcd(**a**,**b**) = gcd(**a**,**c**) when **a** > **b** and **r** is the remainder when **a** is divided by **b.** The algorithm can be expressed in a simple Python program. The variables **x** and **y** represent the natural numbers **a** and **b**. The program will keep running until it reaches the stopping condition of the remainder = **0.** For each step of the algorithm, the **x** variable is assigned with the divisor and the **y** variable is assigned with the remainder. The program will keep iterating until the remainder **y** = 0. Once the program has finished iterating, it will return the value of **x** which represents the gcd of the two natural numbers **a** and **b.**

A screenshot of a cell phone

Description automatically generated