

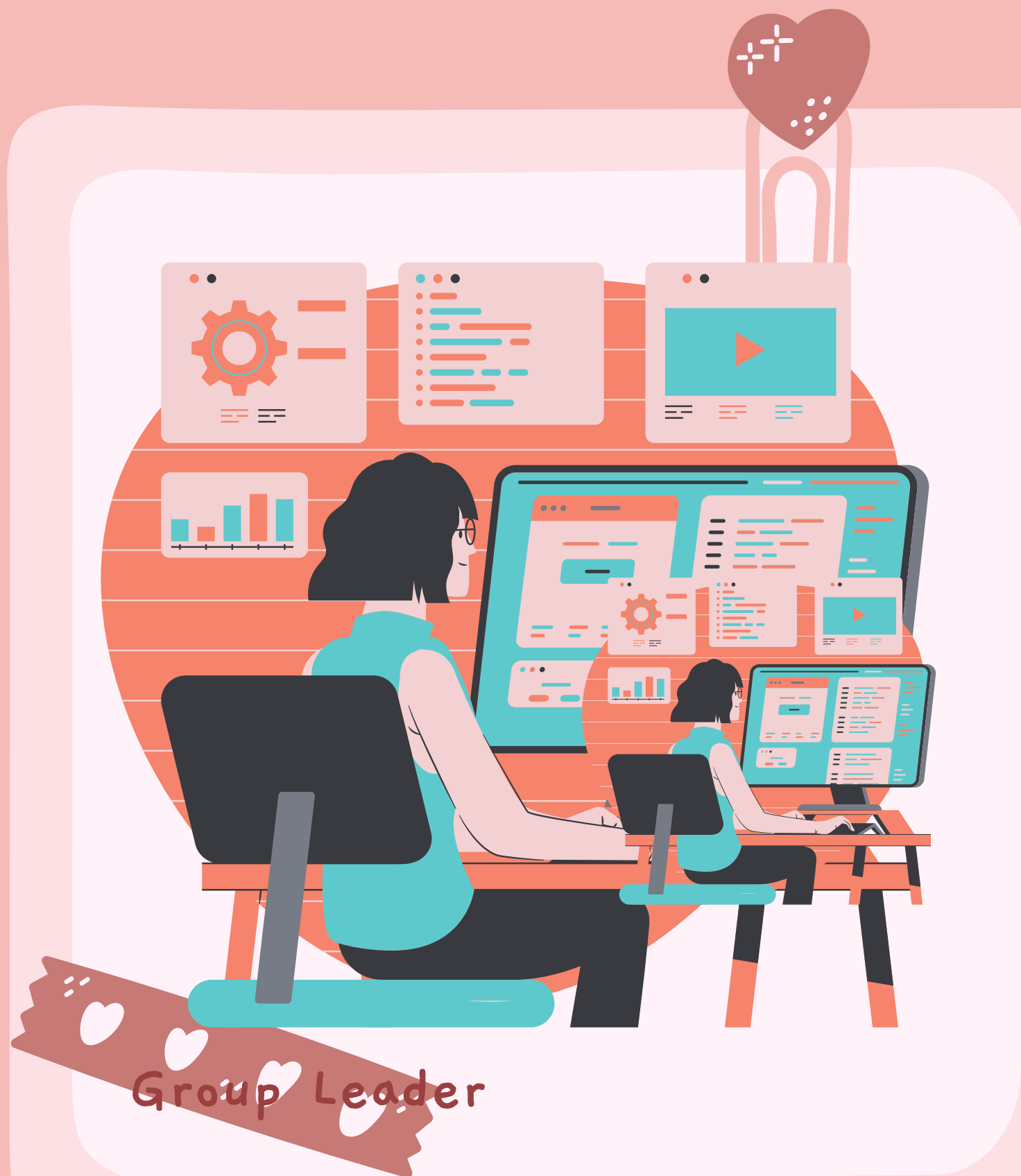


Programming Project



PRESENTED BY GROUP 2



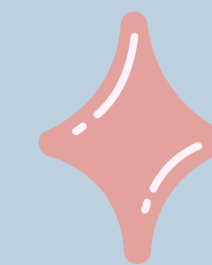


Hello!

We are IAU
students



Meet The Group



ROAA ALMUHANDIR,2200004546
SARAH ALSULAYS,2200004616
KAWTHER ALKHALIFAH,2200000521
AQILAH LAJAMI,220000376
TAIF ALSAEED,2200002140
HAWRA ALGHRASH,2200005095



Lagrange's Four Square Theorem

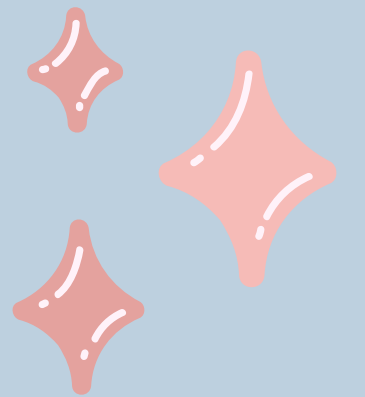


THE CONCEPT

which states that every natural number can be written as sum of squares of four non negative integers.

$$n = a_1^2 + a_2^2 + a_3^2 + a_4^2$$

Hardy Ramanujam theorem



states that the number of prime factors of n will approximately be $\log(\log(n))$ for most natural numbers n

GCD of two numbers is the largest number that divides both of them. A simple way to find GCD is to factorize both numbers and multiply common factors.

$$\begin{array}{l} 36 = 2 \times 2 \times 3 \times 3 \\ 60 = 2 \times 2 \times 3 \times 5 \end{array}$$

$$\begin{array}{l} \text{GCD} = \text{Multiplication of common factors} \\ = 2 \times 2 \times 3 \\ = 12 \end{array}$$

Euclidean algorithms (Basic and Extended)

