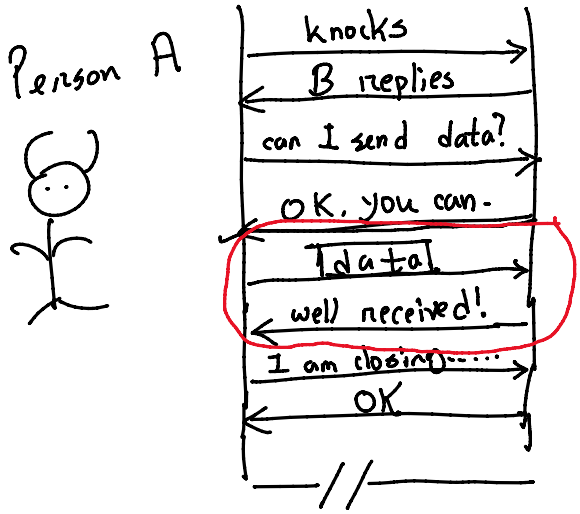
Class 05

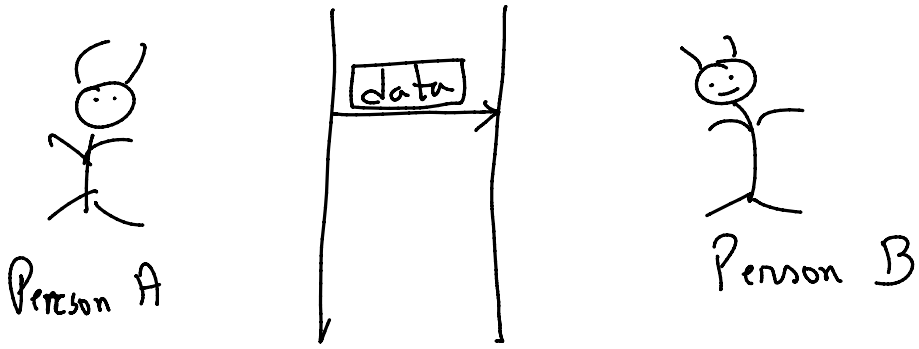
Monday, October 18, 2021 9:33 PM

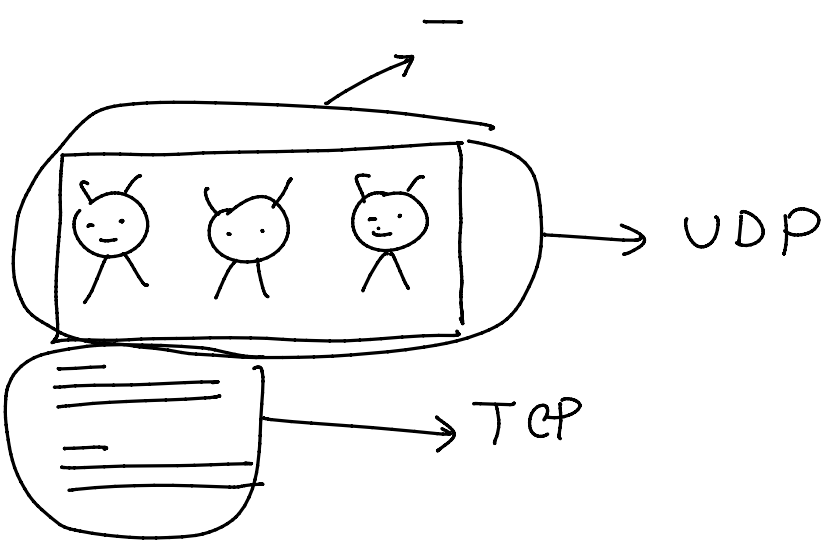
TCP, UDP

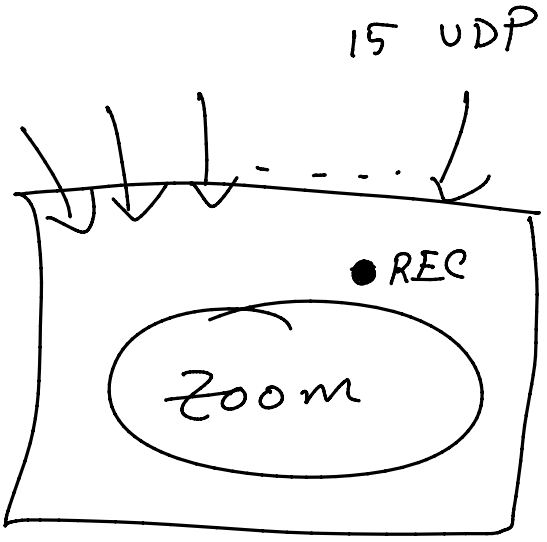
TCP → Transmission Control Protocol

UDP









Discrete Math:

GCD → Greatest Common Divisor
গরিষ্ঠ সাধারণ গুণনীয়ক

GCD(12, 15) = 3

GCD(12, 15, 20) = 1

12 → 1, 2, 3, 4, 6, 12
15 → 1, 3, 5, 15
20 → 1, 2, 4, 5, 10, 20

Euclid

$$GCD(12,15) \overset{3}{=} GCD(3,12) \overset{3}{=} GCD(0,3) = 3$$

12	15	1
	12	
3	12	4
	12	
0	3	

$$GCD(a,0) = a$$

$$GCD(a,b) \rightarrow GCD(x,y)$$

$2 \times 2 \times 3$, $2 \times 3 \times 5$ → 2×3 , $2 \times 2 \times 3$

12	30	2
	24	
6	12	2
	12	

12	15	1
	12	
3		

$$GCD(12,15) = GCD(2^2 \times 3, 3 \times 5)$$

$12 = 2 \times 2 \times 3$

$15 = 3 \times 5$

| 12 |

0 | 6

$15 = 3 \times 5$

$42 \overline{)315} (7$

294

21 $= 2 \times 3 \times 7$

$= 3^2 \times 5 \times 7$

a b

$516 \overline{)1220} (2$

1032

$b\%a ==$ $188 \overline{)516} (2$

376

$140 \overline{)188} (1$

140

$48 \overline{)140} (2$

96

$44 \overline{)48} (1$

44

$4 \overline{)44} (11$

44

0

$GCD(a,b) = GCD(b\%a, a)$

$GCD(12, 15) = GCD(3, 12)$

$= GCD(0, 3)$

↓ GCD

$516 = 2^2 \times 3 \times 43$

$1220 = 2^2 \times 5 \times 61$

$188 = 2^2 \times 47$

$516 = 2^2 \times 3 \times 43$

$4 = 2^2$

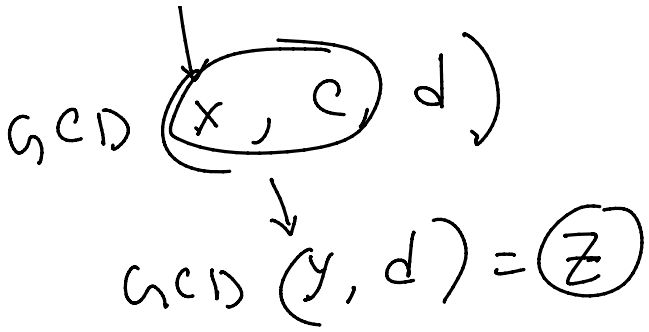
0 = ~~~

$GCD(a,b) = GCD(\quad)$

$GCD(a, b, c, d)$

↓

$(\quad c, d)$


gcd (x, c, d)
gcd (y, d) = z